Rittal – The System.

Faster – better – everywhere.

SYSTEM CATALOGUE 36

ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL | IT INFRASTRUCTURE | SOFTWARE & SERVICES

RITTAL

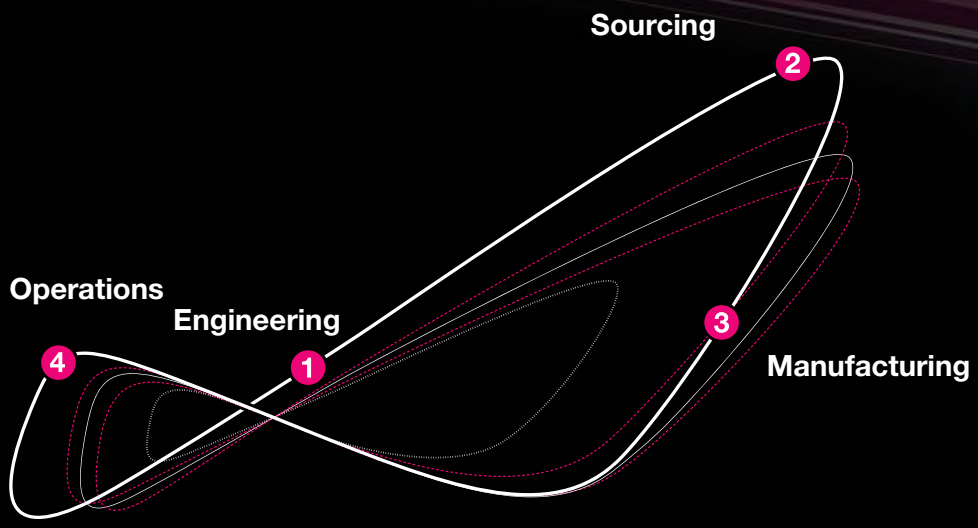
FRIEDHELM LOH GROUP

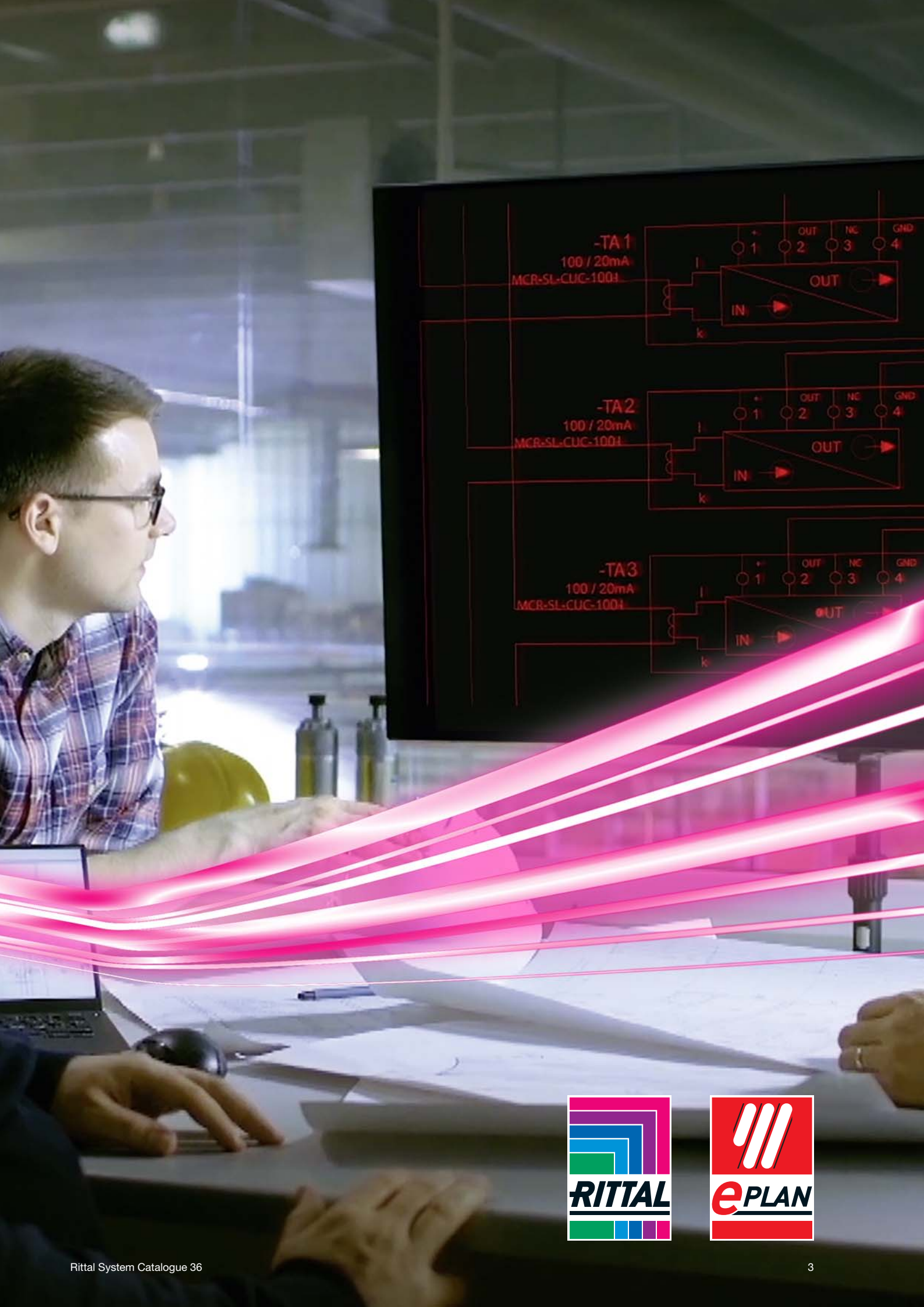
Complex made simple

Eplan and Rittal are powerful partners in the game plan to optimise and streamline value chains. Our solutions speed up your processes and boost your productivity.
Your value chain is optimised and streamlined at every stage in the process, from engineering, purchasing and manufacturing, through to operations and IT. We support you to emerge as a winner through process streamlining in the goal to achieve the new Industry 4.0 standard.

Our approach is simple: The solutions our customers need tomorrow have been developed by us yesterday and are already in stock today.

Our thinking is in sync with your processes.

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1 Engineering

Digitisation and prototyping boost productivity

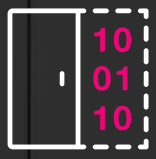
The key to greater productivity in enclosure manufacturing lies in digital integration and end-to-end data transfer across the entire value chain. Digital protoyping from the outset, with the digital twin at its heart, provides the basis for rapid links between processes, systems and beyond.

The complete range of Eplan and Rittal tools is available to you for every aspect of engineering. Up-to-date product data from Rittal and other manufacturers can be accessed quickly via the EPLAN Data Portal. With EPLAN Pro Panel, you are ideally equipped for the future with 3D-assisted design.

Technical Specs

Mechanical Infrastructure

Technical Consulting & Design



Digital Twin

Product Functions Design

Thermal Design & Dimensioning

Checking & Correcting

Find your solution from page 18 onwards.

2 Sourcing

Do it faster, with configuration aids and our online shop

The Rittal Configuration System allows you to select your racks and enclosures quickly and easily at the click of a button, and then order them directly from the online shop. What's more, you benefit from error-free product & accessory configurations and detailed mechanical plans. It's never been easier to configure and order your perfect solution!

As an innovative and technological leader, Rittal uses automated production techniques based on Industry 4.0 principles to manufacture its world-leading products. Our mission is to manufacture rack and enclosure systems as efficiently and perfectly as possible, as at the digitally integrated Rittal plant in Haiger, for example.

Standard products are delivered within 24/48 hours in Germany/Europe, in line with our brand promise: "Rittal – The System. Faster, better, everywhere."

Ordering

Manufacturing Documents

Logistics

Kitting

Find your solution from page 1160 onwards.

24h
RITTAL
MAN
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RITTAL
ePLAN

❸ Manufacturing

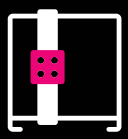
Do it better with Industry 4.0 and automation

For customised machining of racks and enclosures with the same standards of precision and quality of volume production, Rittal offers fully automated machines for machining, component mounting and wire processing. EPLAN Smart Wiring makes wiring easier than ever before. All work stations are interlinked into one seamless, efficient process using data from the virtual prototype.

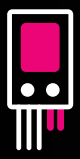
Rittal Automation Systems supplies all the automation support you need for faster, easier and more accurate panel building that can be duplicated time and again – your ideal workflow from a single source.

Cutting

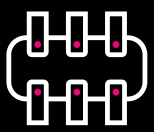
Labeling Devices



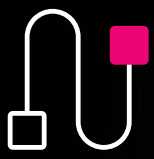
Panel Modification



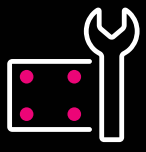
Wire Fabrication



Terminal Strip Assembly



Wiring



Mechanical Installation

Testing

Find your solution from page 560 onwards.

Wire Terminal
WT 36

4 Operations

Do it more reliably with our smart, global service

We’re there for you, whether you are looking to replace vital cooling unit components or your systems need an efficiency check.

After commissioning, machines and systems must ensure reliable long-term operation as the key to efficient, high-performance production. Keep an eye on the status of your current project data, from any location, with the cloud-based solution EPLAN eVIEW. And use the Rittal global service to minimise downtime and boost efficiency.

We think ahead: With IoT links to our cooling units and chillers, for example, predictive maintenance is already a reality.

Operations

Service

Find your solution from page 1132 onwards.

Daten Cockpit
Zeitraum: Woche
Wert: Tagesdurchschnitt
X-Achse Referenz: Laufzeit
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Effizienz ø (EER)
Aktueller Wert: --
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Aktueller Wert: --
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Become more future-proofed

With the IT platform and edge cloud technology

The latest IT technologies and applications – from cloud and edge computing, to analytics and AI, through to 5G – will shape the production of the future.

Processing production data in real time, while ensuring data sovereignty and value creation, is a breeze with the turnkey edge cloud data centre ONCITE.

What is more, the Rittal IT platform with its modular system design will help you to master all IT scenarios quickly and easily, from rack installations through to edge and hyperscale data centres.

Monitoring

Data Analysis

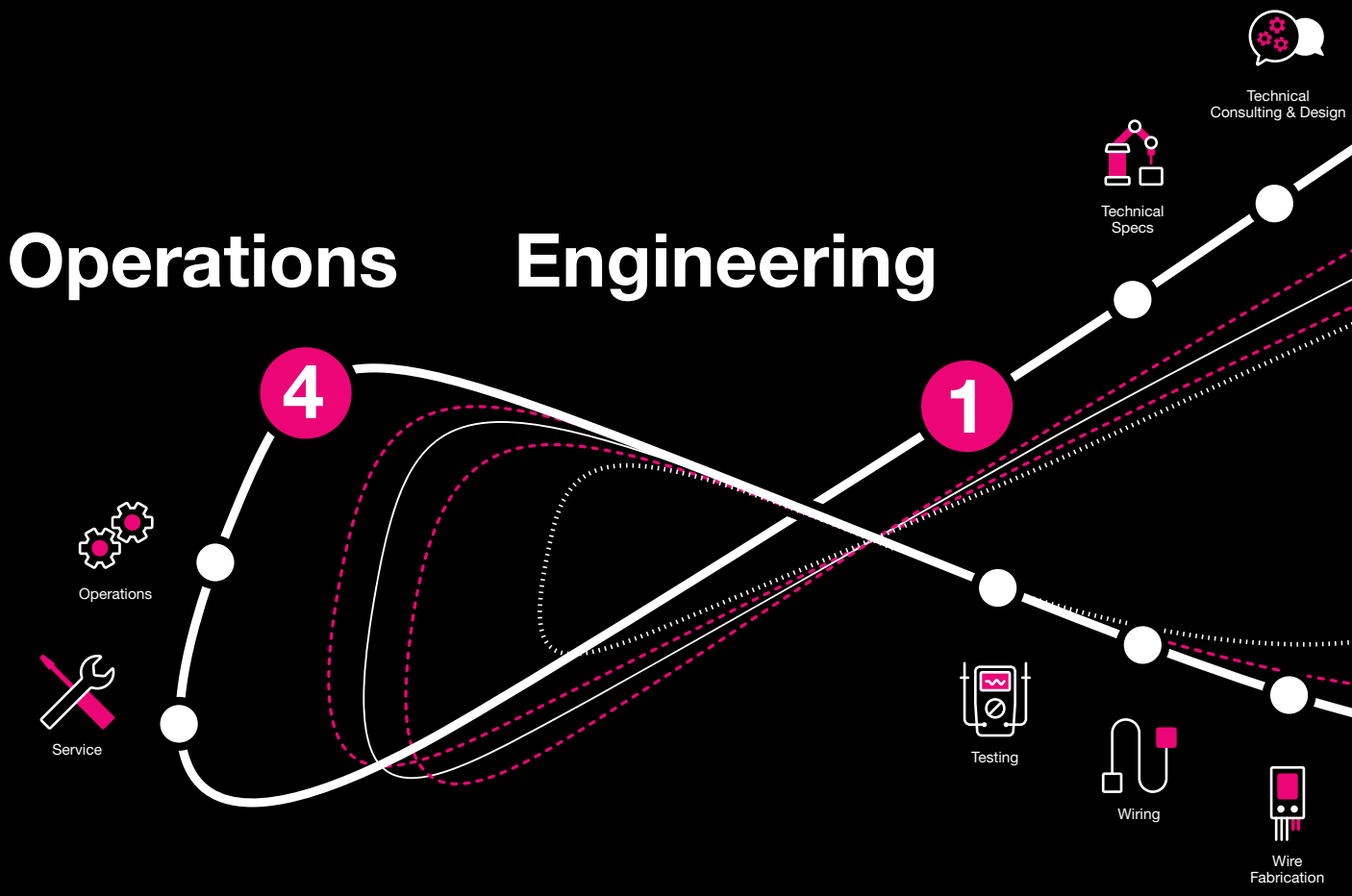
Find your solution from page 834/661 onwards.

Be more competitive

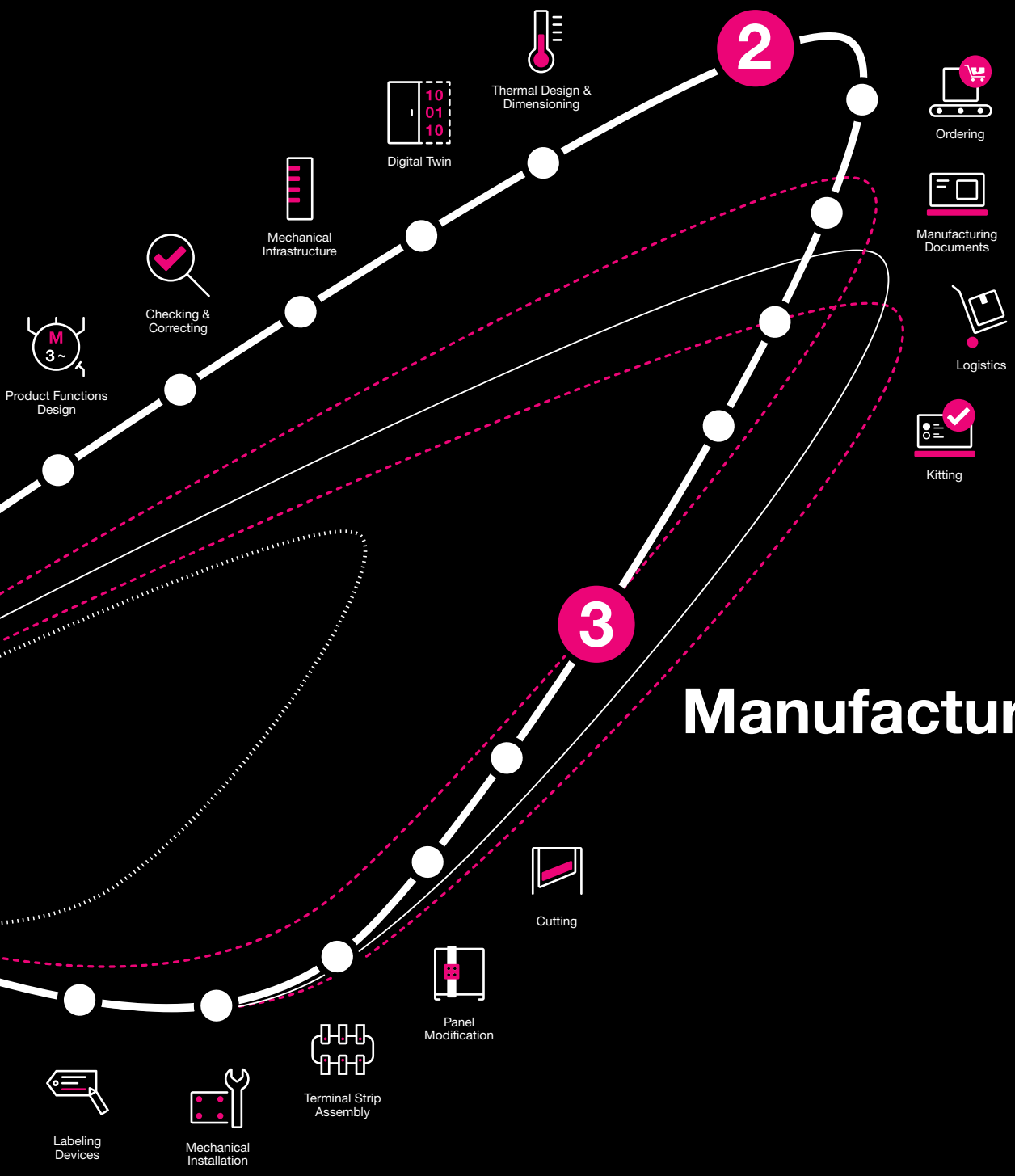
With know-how and interplay

Combining engineering solutions from Eplan with system and automation expertise from Rittal will help to optimise and streamline your panel building and switchgear manufacturing processes across the entire value chain.

Invest in your future with Eplan and Rittal.
The future has arrived.



Sourcing



Manufacturing

Rittal – The System.

Faster – better – everywhere.

ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL

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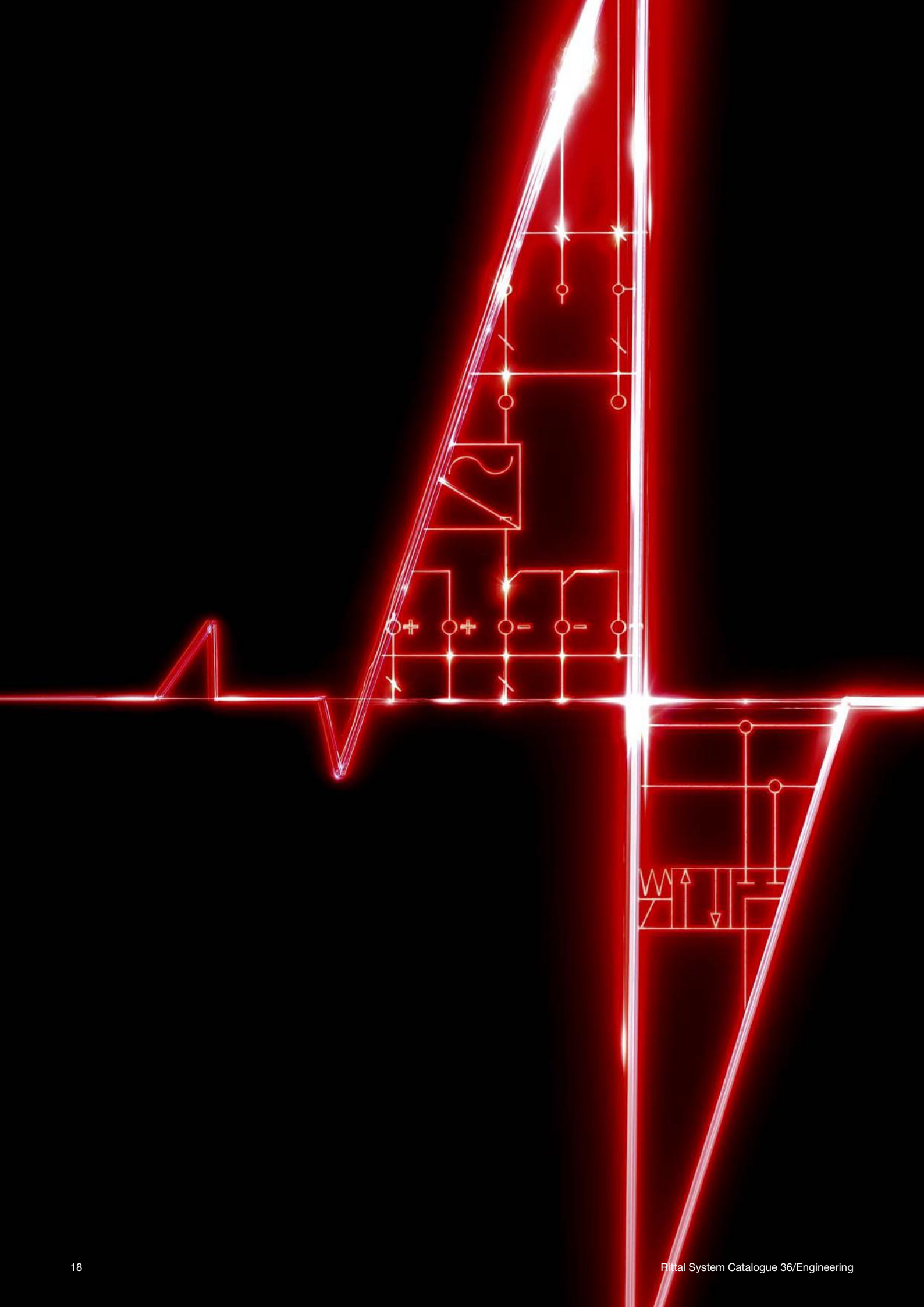

Engineering

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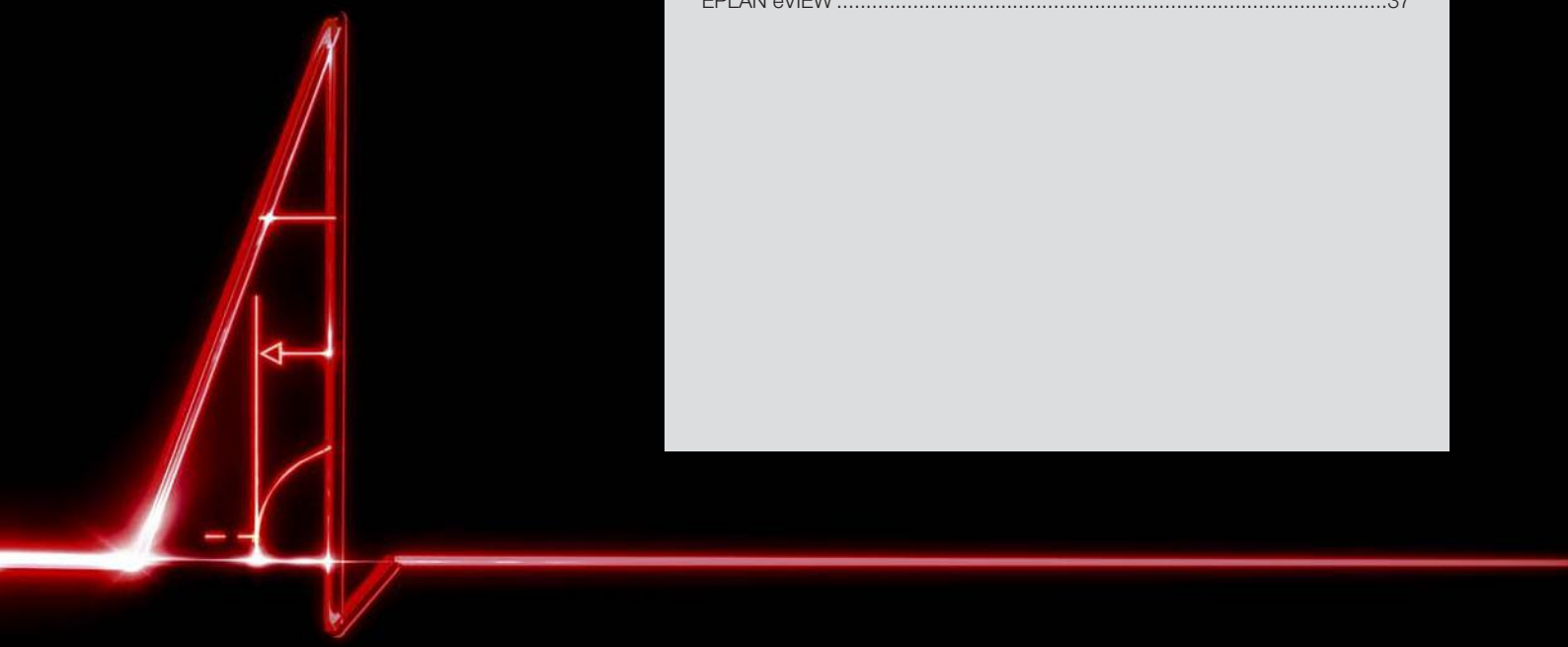
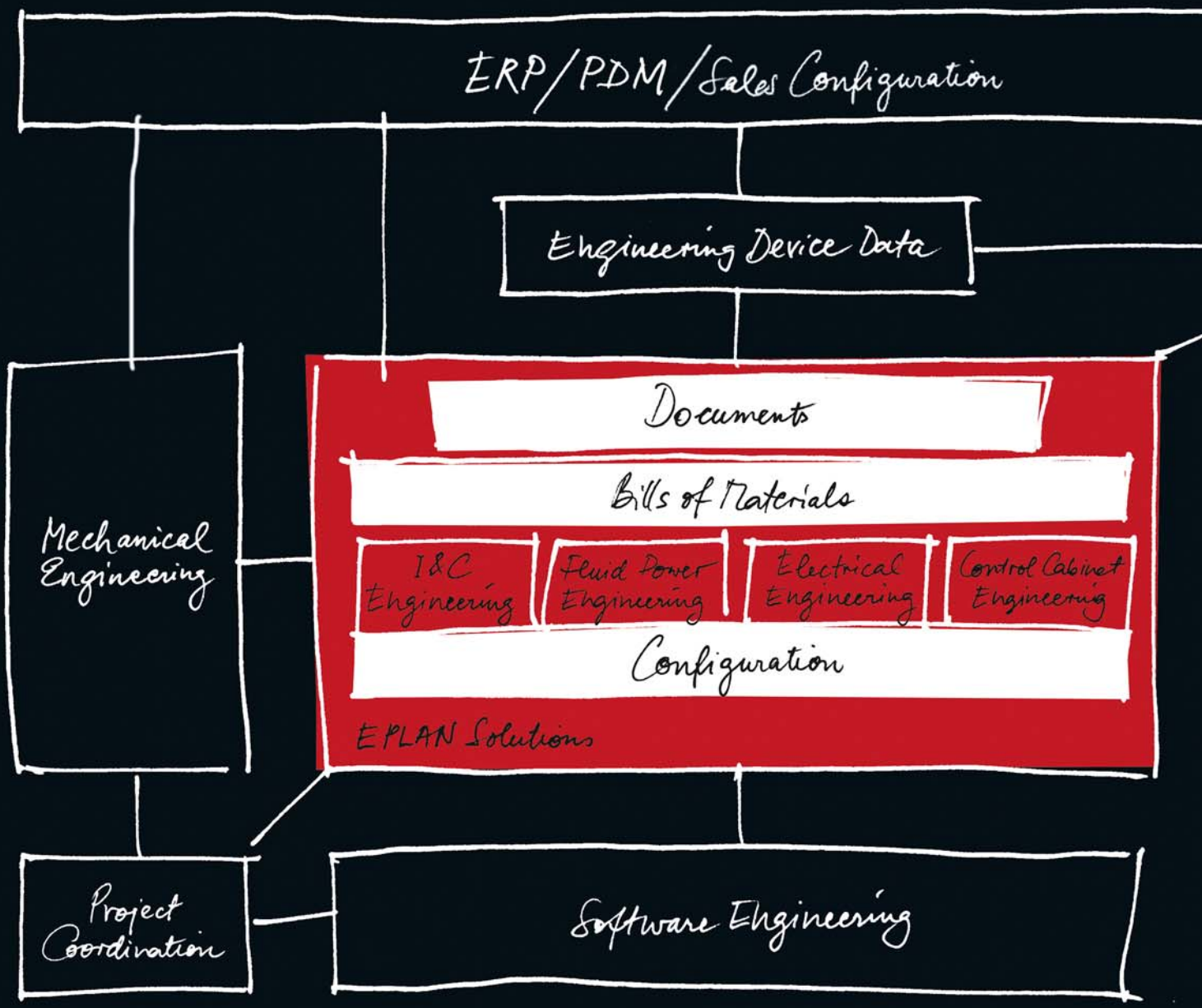


Eplan delivers software and service in all fields of electrical engineering, automation and mechatronics. We have developed one of the world's leading software solutions for mechanical & plant engineering and enclosure manufacturing.

"Efficient engineering" is our motto. When it comes to streamlining challenging engineering processes, Eplan is your ideal partner. Whether you are a small or a large company, we can help you deploy your expertise more efficiently.

THE EPLAN PROCESS AT A GLANCE

When it comes to your design, engineering and manufacturing tasks, having the correct expert systems is one thing. But what about the connections between the systems? And the single source of truth (SSOT)?



We examine your process, across the full range of different operations to optimise greater efficiency and data continuity:

- Interdisciplinary communication
- Macros and configuration
- Two-way data exchange
- Interfaces to ERP/PDM
- Data forwarding to enclosure manufacturing
- Efficiency via cloud solutions

From engineering to production

One thing is clear: the greatest potential for efficiency improvements lies in the process. Smooth interactions between all systems, from engineering through to production, are the key to creating more value.

Aim for reuse

Similarly, structuring your projects and templates correctly will significantly enhance the opportunities to reuse them. We can help you!

A standardised database for your project

At the start of any project, you should ask yourself: Which components do we need for planning? The EPLAN Data Portal can supply these components and complete your data in a logical fashion.

EPLAN

efficient engineering.

EPLAN SOLUTIONS – YOUR GATE-WAY TO GREATER EFFICIENCY

EPLAN helps you to develop a cross-disciplinary approach to your engineering. The EPLAN platform provides the basis for this, by linking our software solutions together. For you, this translates into significant efficiency gains when working on your EPLAN project, because your digital data flows seamlessly from solution to solution, becoming further augmented with every process step.
EPLAN ePULSE additionally provides access to an innovative cloud system, genuinely adding value to multi-location projects, for example.
The EPLAN platform and EPLAN ePULSE combine to create EPLAN Solutions, your key to cutting-edge advanced engineering.

“By digitizing your processes and standardizing your data, you will retain a long-term competitive edge.
We can support you, with open systems and professional advice to safeguard your efficient engineering for the future.”

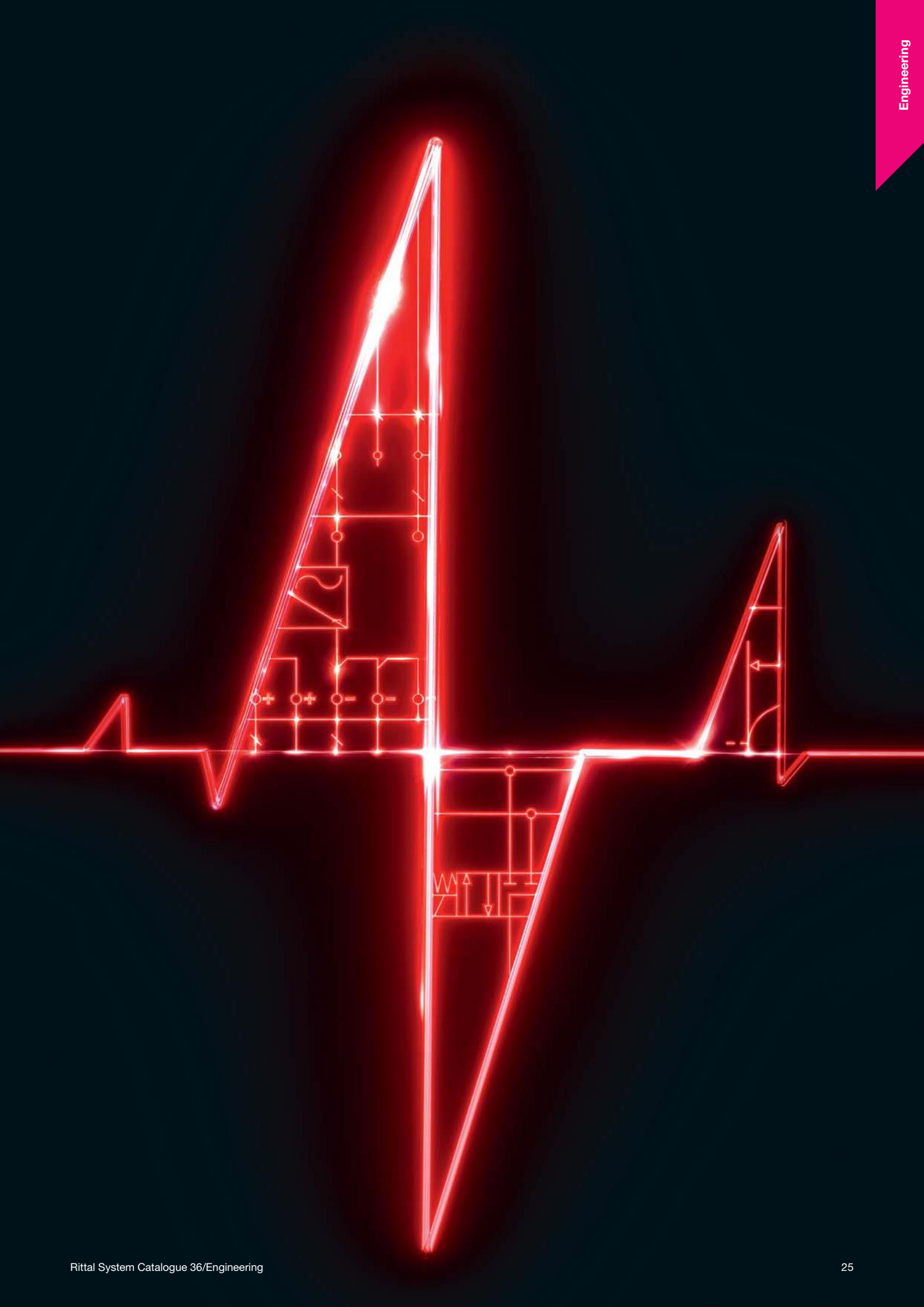
Bernd Schewior,
Vice President Professional Services EPLAN

ENGINEERING WITH ITS FINGER ON THE PULSE

EPLAN platform

The EPLAN platform combines software solutions for every engineering discipline, from pre-planning, to project management, through to the construction of switchgear and cable harnesses. It comprises:

- Automated Engineering: EPLAN Engineering Configuration (EEC) provides you with a versatile tool for the design and use of configuration interfaces. EPLAN Cogineer provides you with the basis for automated generation of wiring schematics.
- EPLAN Preplanning helps you to record engineering data even at the preplanning stage.
- EPLAN Fluid is your engineering tool specifically designed for the project management and automatic documentation of circuits for fluid engineering systems.
- EPLAN Electric P8 helps you project-plan your electrical design for machinery and equipment in an engineering solution at the heart of the EPLAN platform.
- With EPLAN Pro Panel you devise and design control cabinets, switchgear and power distribution systems for energy supply in 3D.
- Use EPLAN Harness proD for efficient design and documentation of cables and cable harnesses in 3D and 2D.



EPLAN solutions

EPLAN Cogineer

Maximise the potential of your engineering in next to no time with EPLAN Cogineer and boost the quality of your electrical and fluid documentation. Use your existing circuit templates to build a macro-library, and generate wiring schematics automatically at the click of a button with EPLAN Cogineer. What is more, you will benefit from the innovative techniques and add value to your engineering without a lengthy implementation process, across all industries and in companies of all sizes. With EPLAN Cogineer you can now compile circuit diagrams from a template library with just a few clicks directly from your Web browser.
Users of EPLAN ePULSE have automatic access to a free premium version of EPLAN Cogineer if already working with the Eplan platform.

FAQs

- **How will EPLAN Cogineer improve the quality of my projects?**
  EPLAN Cogineer is based on the standardised reuse of Eplan macros. Once correctly created, they work like a high-quality library, thus avoiding typical copy-and-paste errors. This saves time and money.
- **Do I need extensive prior knowledge to be able to work with EPLAN Cogineer?**
  You do not need expert knowledge of Eplan to be able to generate wiring schematics to the customer's specifications; training is fast and straightforward. Nor do you need any knowledge of advanced programming languages.
- **Can I benefit from EPLAN Cogineer even at the implementation phase?**
  Yes, because with EPLAN Cogineer you have the option of gradually phasing in versions of automated wiring schematics.

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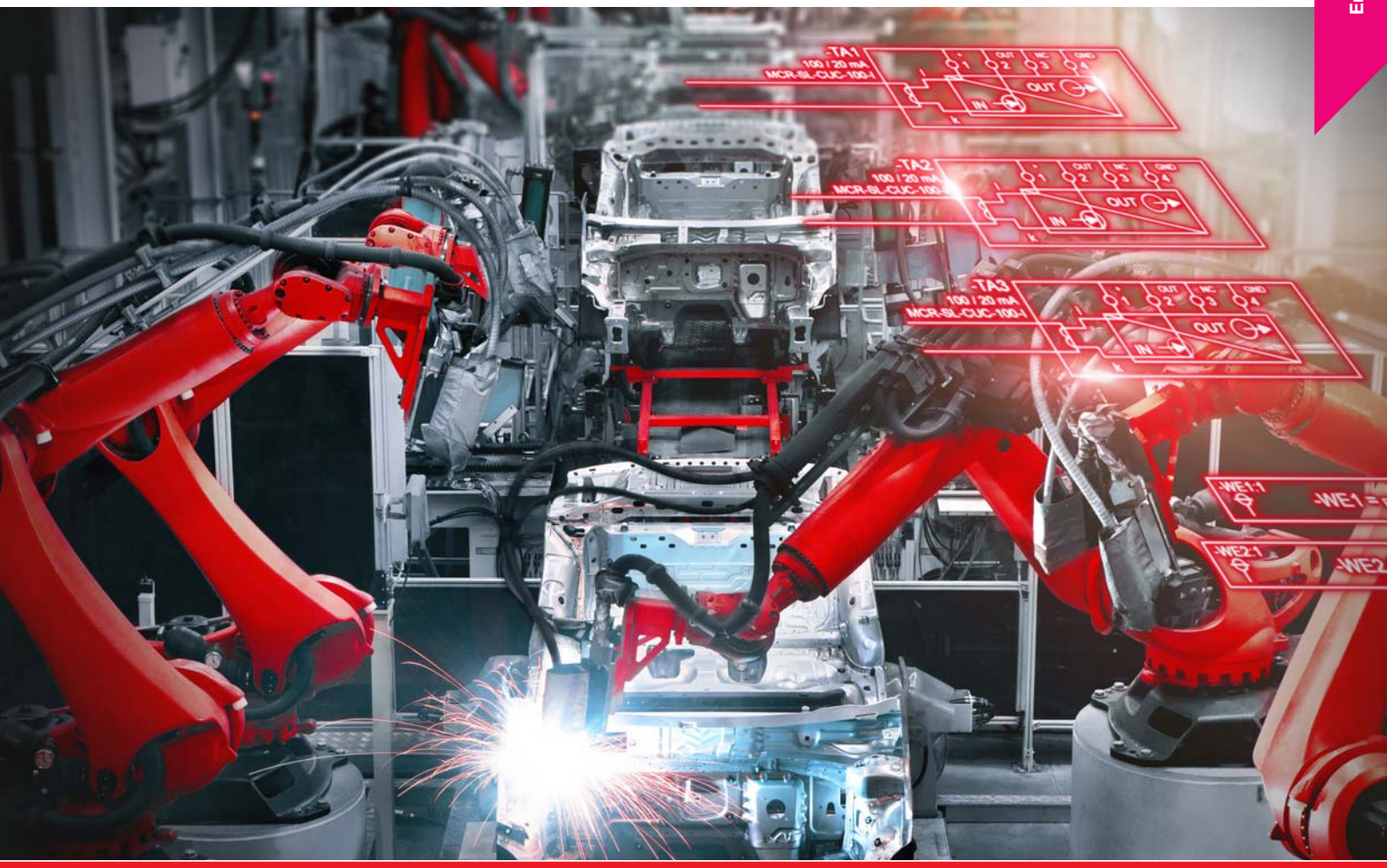
EPLAN solutions



EPLAN Engineering Configuration (EEC)

With EPLAN Engineering Configuration (EEC), you map your product portfolio in a modular system with interdisciplinary functional units. As a result, EEC is your go-to tool for the design and application of configuration interfaces and the automatic generation of documents. This multi-disciplinary approach integrates sales, order processing, mechanical engineering, electrical and control engineering as well as production and documentation. Standardised, recognizable structures also make the commissioning and servicing of your products easier.

Your benefits

- Benefit from automated data reuse with simple product structuring and the creation of modules.
- Save time and money, and optimise the quality of your documentation.
- Significantly shorten your production and delivery times, which in turn will cut project throughput times at your company.
- A wide range of distinct and varied specification parameters are supported and enable the handling of customer-specific requirements.
- EEC can be seamlessly integrated into existing system structures and supports consistent workflows.

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EPLAN solutions

EPLAN Preplanning

EPLAN Preplanning helps you to log your engineering data even at the preplanning stage. For example, this might include the actuators and sensors in a system, machine or building. You can import data from external spreadsheets as well as making a graphical record of plant and machine overviews and process and instrumentation diagrams. This allows you to generate the initial data sheets and specifications for material procurement quickly. Downstream engineering planning phases can also access the collated and augmented data from EPLAN Preplanning.

Your benefits

- You have a clearly structured overview of all plant, machine and building data at all times.
- Engineering data logged early on in the project remains readily accessible to anyone working on the project for its entire duration.
- Preplan basic information such as signal, pipeline and cable data in a graphical format to guide you more easily through the project.
- By using EPLAN Preplanning at the quote preparation phase and seamlessly transferring this information to engineering, you can boost the quality of your data throughout the entire planning process.

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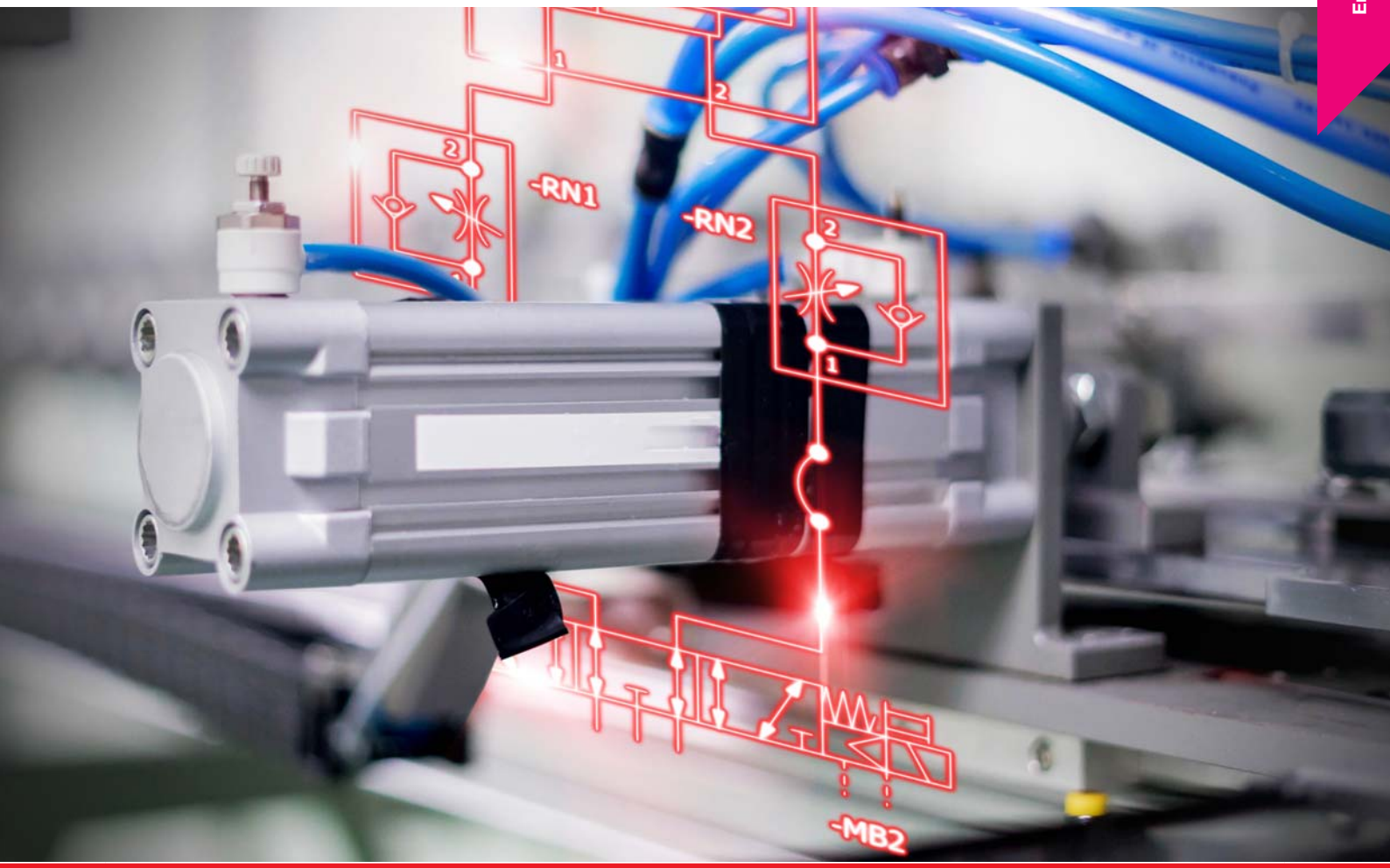

EPLAN Fluid

EPLAN Fluid is your engineering tool specifically designed for the project planning and automatic documentation of fluid circuits in hydraulics, pneumatics, cooling and lubrication. The direct link to the EPLAN platform also allows you to implement tasks from other engineering disciplines in parallel. Planning and production documents are derived from the same source.

Good to know

- Fluid engineering planning with EPLAN Fluid is compliant with the latest standard ISO 1219 or IEC 81346 with a mechatronic approach.
- Standards and expertise are stored in the system as macros for reuse.

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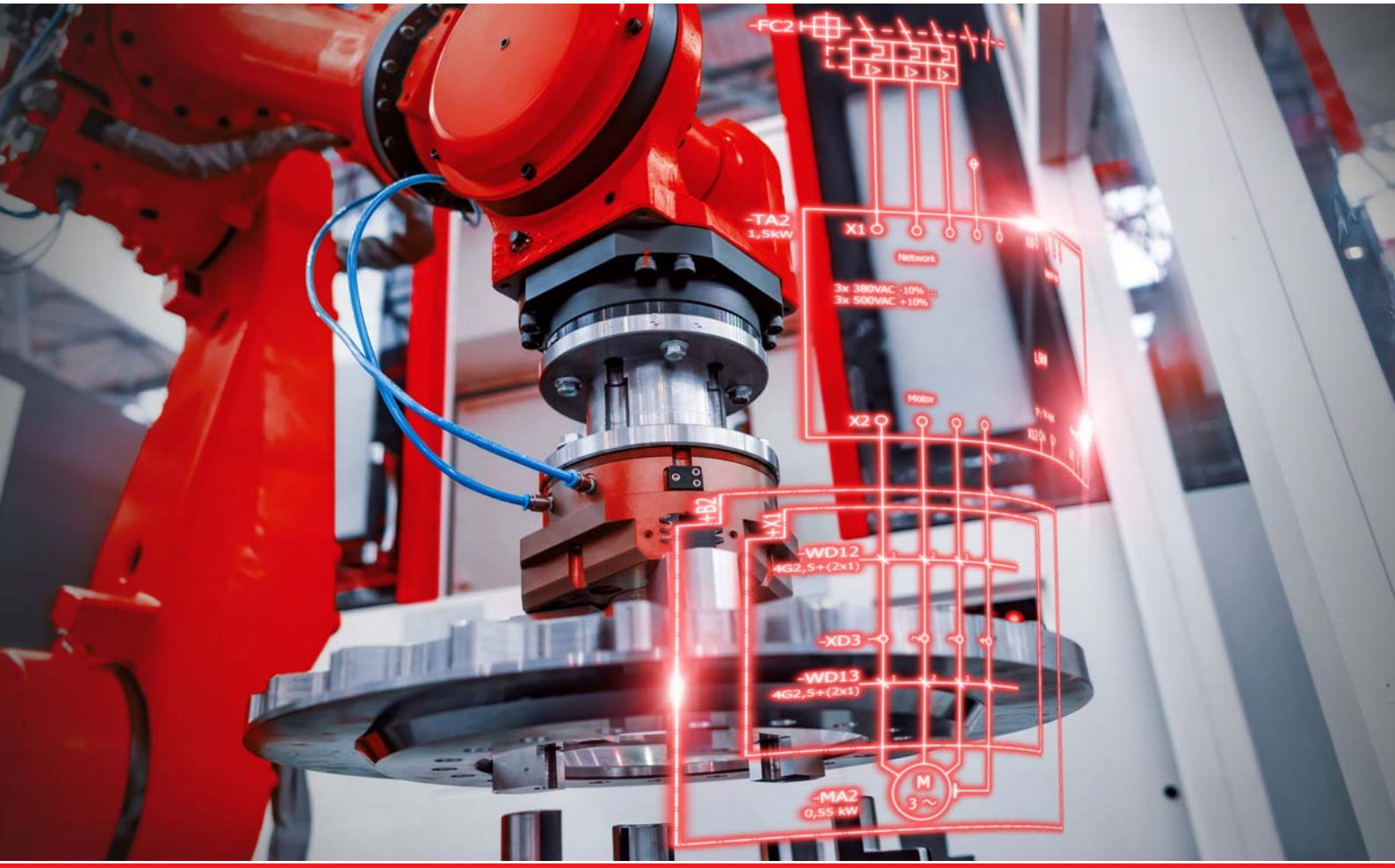
EPLAN solutions



EPLAN Electric P8

EPLAN Electric P8 allows consistent, seamless, fast project planning of your electrical machinery and equipment designs in one engineering system. The software supports a range of engineering techniques, from manual generation through to standardised and template-based approaches. Once recorded in the circuit diagram, the machinery and equipment documentation is auto-completed using the project data. EPLAN Electric P8 automatically generates detailed evaluations on your behalf as an integral part of the project documentation.
This can be supplied continuously or bundled at the end of the project, as you prefer. This allows you to supply all downstream process stages with the necessary engineering information: from seamless planning through to production, commissioning, maintenance and repair.

Your benefits

- Switch symbols are logically autoconnected in a flash.
- Choose between a graphical, logical or equipment-based project planning approach to support a variety of work processes.
- Evaluations such as terminal and cable plans or parts lists are generated automatically for you.
- Functions for processing mass data such as “search and replace” or “process in Excel” will accelerate your project planning while at the same time improving quality.

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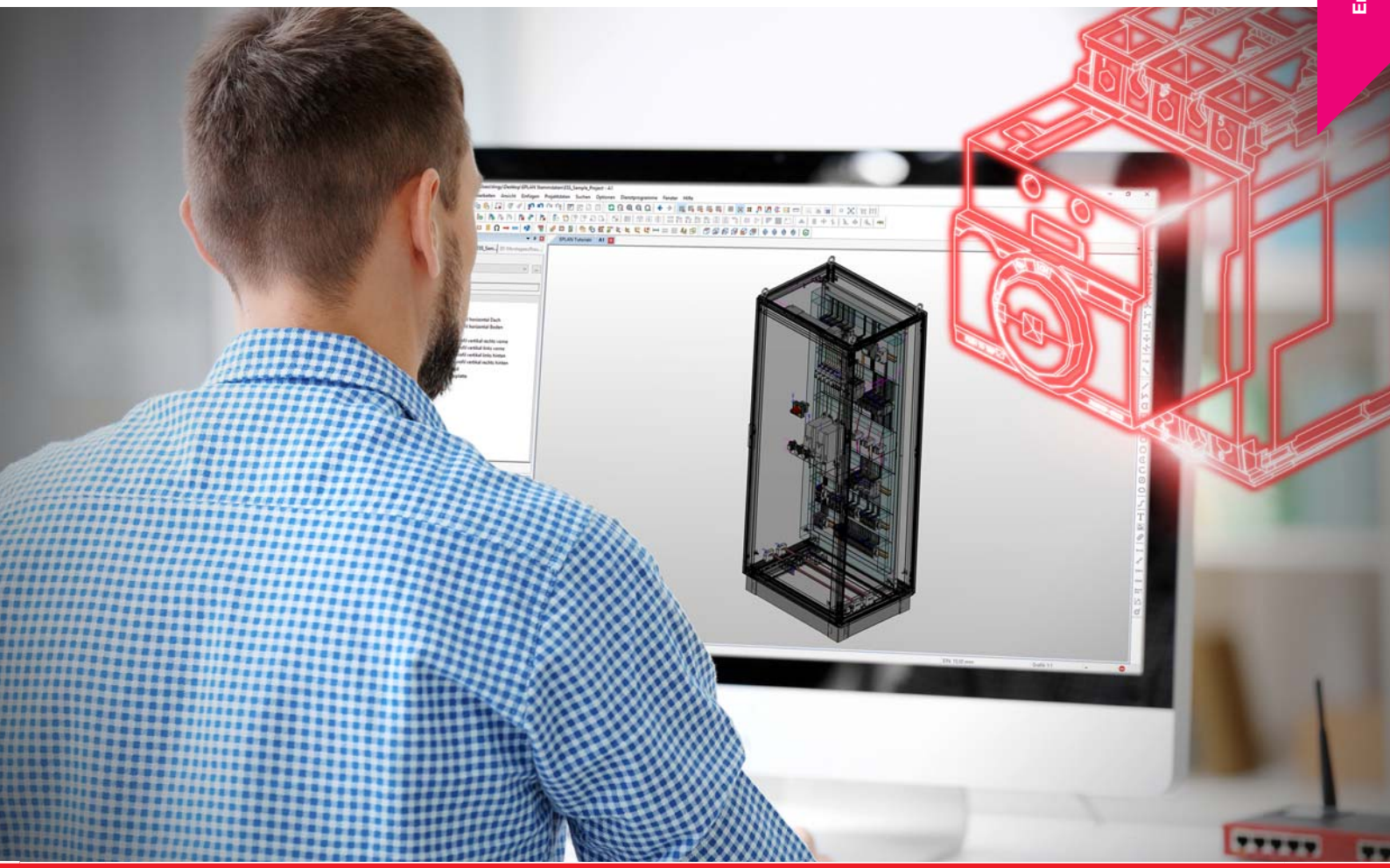
EPLAN solutions



EPLAN Pro Panel

EPLAN Pro Panel Professional allows you to devise and design control cabinets, switchgear and power distribution systems for energy supply in 3D. This means you can solve a wide range of engineering tasks with just one software package: from the creation of electrical circuit diagrams, to planning the installation layout in 3D, through to the virtual laying of connections. What is more, EPLAN Pro Panel Professional allows for comprehensive improvements of the production processes in enclosure and switchgear manufacturing: A wide range of manufacturing data and information is supplied automatically, from component labelling through to support of the manual wiring process.
In short, EPLAN Pro Panel Professional provides a solid foundation for the automation and streamlining of your enclosure manufacturing.

Your benefits

- From the creation of circuit diagrams to assembly layout to production integration, a single software package does it all.
- For more automated enclosure production, order information and comprehensive manufacturing documentation can be provided.
- Shorten throughput times and cut costs while maintaining a high standard of quality.
- Work profitably on any unit volume, from specific projects with a batch size of just 1 through to mass production.

www.eplan-software.com/solutions

EPLAN solutions

EPLAN Smart Wiring

EPLAN Smart Wiring is your virtual assistant for manual wiring in enclosure production. From the connection point through to the precise cable route, the software provides wiring experts with all the information they need in digital form, in 3D if required. You decide whether to wire the displayed connections individually or in a preset sequence.
Wiring status can be indicated with the traffic-light principle. If you need confirmation, you can call up the electrical wiring plan to cross-check, starting from each individual connection. Any anomalies can be forwarded directly to the planning department by email. Project data is made available on a central server, allowing you to produce multiple identical enclosures in parallel or collaborate with several wiring experts.

Your benefits

- As a wiring expert, you receive detailed step-by-step instructions for simple usage.
- Wiring without a wiring plan is also possible, this is stored in the assistant.
- Assembly layout, operating equipment, connections, connection setups and cable routes are clearly and comprehensively visualised.
- For any last minute changes, an automatic project adjustment capability helps to prevent errors.
- Status information supports the transfer of the project to several different employees and enables you to monitor the project.

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EPLAN solutions

EPLAN Harness proD

EPLAN Harness proD is used for the efficient design and documentation of cables and cable harnesses in 3D and 2D. The software allows you to automate typical work operations in cable and cable harness design – from transferring the connection information from the EPLAN platform, to intuitive cable laying, through to generation of the production documents. The software is open to MCAD systems and is therefore seamlessly integrated into existing system landscapes. The cable and cable harness design does not depend on the availability of a mechanical prototype. You can upgrade the digital twin with the relevant electrical information even during the engineering process.

Your benefits

- The intuitive 3D environment makes it easier for you to design cables and cable harnesses.
- The required production documents including pinboard drawing and cable drawing can be derived automatically. This saves you time and money and enhances the quality of your documentation.
- Electrical pathways are more easily distinguished and wires and cables can be routed automatically.

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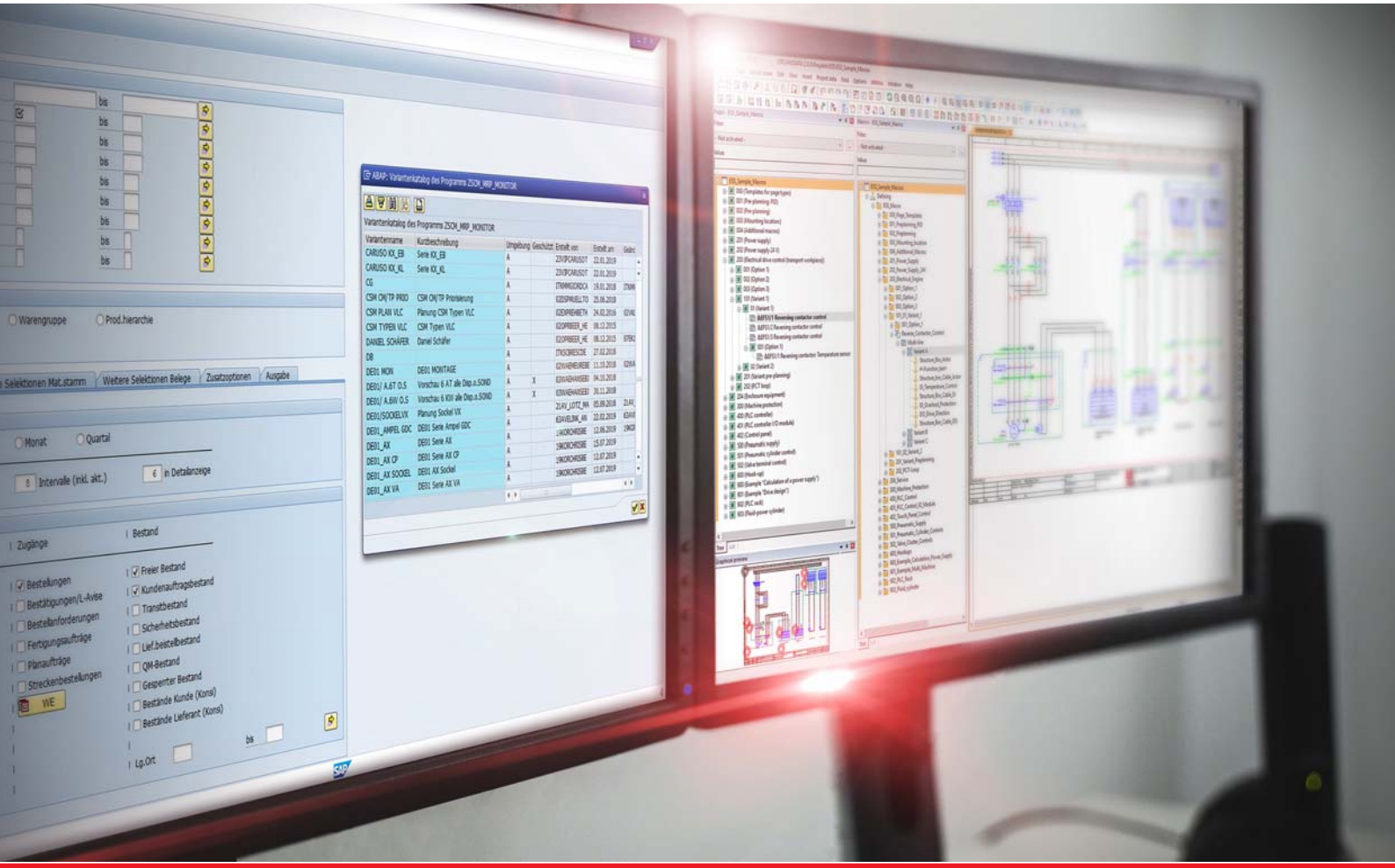
EPLAN solutions



EPLAN ERP/PDM Integration Suite

Seamless data flows ensure transparency in the product development process. The EPLAN Integration Suite supports integration into existing ERP, PDM and PLM system protocols. This helps you to optimise your work processes, from the circuit diagram through to the master data.
Fast, specific data is supplied in a two-way exchange with the systems without needing to leave your work space within the EPLAN platform.

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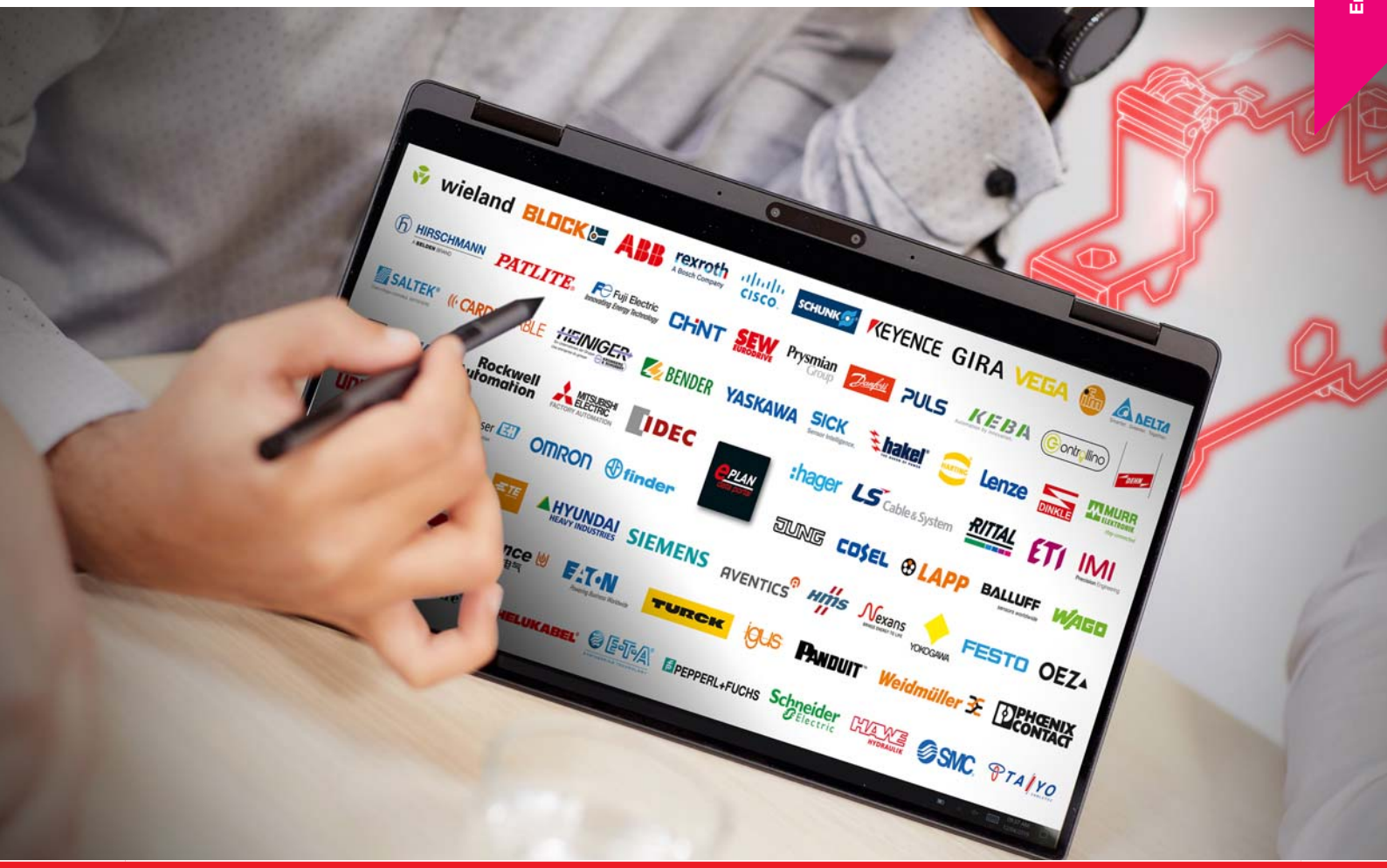
EPLAN solutions



EPLAN Data Portal

The EPLAN Data Portal gives you direct online access to high-quality product catalogues from a host of component manufacturers. All products within the EPLAN platform have equal access to this Web service. By dragging and dropping the available components into the EPLAN documentation, you can reduce project planning work and upgrade the quality of machine and system documentation. The time savings achieved with the EPLAN Data Portal at the start of project planning extend right through to commissioning: The representation of a device in various system plans is always based on a uniform source.

Your benefits

- Quickly and easily located standardised, intelligent, globally valid device data.
- Minimise the effort required for master data maintenance.
- Benefit from significant project planning time savings compared with manual generation.
- Significantly enhance the quality of your documentation.

www.eplan-software.com/eplan-data-portal

EPLAN solutions

EPLAN eBUILD

EPLAN eBUILD is a member of the EPLAN ePULSE family, which brings together open and cloud-based data and projects, disciplines and engineers worldwide.
The automated creation of wiring schematics helps users to take their first steps towards automated engineering.

Your benefits

- Free template libraries, including logic and variance, are available to use.
- Readily available in the Eplan platform (from version 2.8, hotfix 3).
- New template libraries from well-known manufacturers are continuously being added to EPLAN ePULSE as cloud-based options.
- This tool is suitable for universal use across all industries and is international.

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EPLAN eVIEW

With EPLAN eVIEW, your Eplan project is uploaded to the cloud for you. This means that any data created and added to in the EPLAN platform is evident to everyone involved in the project throughout the entire value chain, from engineering, production and assembly, through to maintenance and servicing. EPLAN eVIEW allows you to view project data from any location via your browser and comment on any amendments. The software guides you easily and intuitively through the redlining process.
This enables simple communication and collaboration across different projects, departments and companies, so you can collaborate securely and transparently with different teams, suppliers and service-providers. Everything is paperless, using data directly from the cloud.

Good to know

- EPLAN eVIEW allows you to access and view the status of a distinct EPLAN project at any time.
- Clearly definable access rights ensure data privacy.
- A consistent redlining process supports communication between the engineering team and the local commissioning and servicing teams.
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Rittal – The System.

Faster – better – everywhere.

ENCLOSURES **POWER DISTRIBUTION** **CLIMATE CONTROL**

FRIEDHELM LOH GROUP

ENCLOSURES

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Rittal – The System.

Faster – better – everywhere.

Product group		Small enclosures	Compact enclosures	Enclosure systems	
		Tough enough to take it all – there are practically no limits to the scope of applications for these especially robust small and compact enclosures. Electrical, electronic and pneumatic components are securely encapsulated with a high IK impact resistance.		Ingeniously simple, fully symmetrical, and patented worldwide – this is the successful formula which has established the VX25/ VX SE as a global standard.	
Material	Plastic	■	■	–	
	Aluminium	■	–	–	
	Sheet steel	■	■	■	
	Stainless steel	■	■	■	
Dimension variants		More than 145 small enclosures and 190 compact enclosures in a range of individual materials and designs.		Free-standing and bayed enclosures in more than 140 variants for controlgear production and plant manufacturing.	
Product characteristics		Exceptionally robust and with a high IP and IK protection class, Rittal small and compact enclosures are compliant with all major international approvals and standards.		Infinite installation opportunities, simple assembly, uncompromising baying and tested quality are the distinguishing features of these enclosure systems. QR codes on all machinable components.	
From page		43, 227	73, 227	99, 227	

	Console systems	PC enclosure systems	Industrial Workstations	Operating housings	Support arm systems	Stand systems	Hygienic Design
	Versatility through modularity – essential for meeting individual customer requirements for machine and plant operation perfectly and cost-effectively.			Always exactly the right position: Different viewing angles of the machine, tall or short operating staff – your ergonomic solution at the human/machine interface can be found here.			Hygienic Design (HD) enclosures are key elements in the design of open processes for the food industry and clean rooms, due to their ease of cleaning.
	–	–	–	–	–	–	–
	–	–	–	■	–	–	–
	■	■	■	■	■	■	–
	■	■	–	■	■	–	■
	Choose from console systems in over 30 combination variants, 8 PC enclosure systems and 13 variants of Industrial Workstations.			With over 30 operating housings, 5 support arm systems with a wide range of combination options and 8 stand systems, there is a solution for every requirement.			18 different enclosure types and sizes.
	Robust and modular, especially designed for tough industrial environments where a high protection category and good accessibility are key.			Flexibility, stability, simple assembly and tremendous versatility with product combinations mean that every requirement is catered for.			The range is based on common European standards, directives and regulations in the food and luxury goods industry.
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Rittal – The System.

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Small enclosures

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Polycarbonate enclosures PK

PK accessories Page 47 **System accessories** Page 877 **Cable gland, polyamide** Page 1056

Applications:
- Ambient temperature range: -35 °C...+80 °C
- The specified temperatures may be limited by the installed equipment

Material:
- Enclosure: Fibreglass-reinforced polycarbonate
- Cover grey: Fibreglass-reinforced polycarbonate, all-round foamed-in PU seal
- Cover transparent: Polycarbonate, all-round foamed-in PU seal
- Cover screws: Polyamide
- Insulating bungs: Polyethylene

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure with cover
- Cover screws
- Insulating bungs for wall mounting screws

Approvals:
- UL
- cUL
- DNV-GL

without knockouts

Width mm			65	94	94	94	110	110	Page
Height mm			65	65	94	94	110	110	
Depth mm			57	57	57	81	66	90	
Model No.			**9500.000**	**9502.000**	**9504.000**	**9505.000**	**9506.000**	**9507.000**	
		Packs of	12 pc(s).	8 pc(s).	6 pc(s).	6 pc(s).	6 pc(s).	6 pc(s).	
Cover	grey		■	■	■	■	■	■	
Accessories									
Mounting plate			–	–	–	–	–	–	
Hinge			–	–	–	–	–	–	
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	47

without knockouts

Width mm			130	130	130	130	180	180	Page
Height mm			94	94	130	130	94	94	
Depth mm			57	81	75	99	57	81	
Model No.			**9508.000**	**9509.000**	**9510.000**	**9511.000**	**9512.000**	**9513.000**	
		Packs of	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	2 pc(s).	2 pc(s).	
Cover	grey		■	■	■	■	■	■	
Accessories									
Mounting plate			–	–	–	–	–	–	
Hinge			–	–	–	–	–	–	
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	47

without knockouts

Width mm		Packs of	180	180	180	180	180	180	Page
Height mm			110	110	110	110	110	110	
Depth mm			90	90	111	111	165	165	
Model No.		2 pc(s).	**9514.000**	**9514.100**	**9515.000**	**9515.100**	**9516.000**	**9516.100**	
Cover	grey		■	–	■	–	■	–	
	transparent		–	■	–	■	–	■	
Accessories									
Mounting plate			–	–	–	–	–	–	
Hinge		20 pc(s).	9581.000	9581.000	9581.000	9581.000	9581.000	9581.000	47
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	47

without knockouts

Width mm		Packs of	182	182	182	182	182	182	Page
Height mm			180	180	180	180	180	180	
Depth mm			90	90	111	111	165	165	
Model No.		1 pc(s).	**9517.000**	**9517.100**	**9518.000**	**9518.100**	**9519.000**	**9519.100**	
Cover	grey		■	–	■	–	■	–	
	transparent		–	■	–	■	–	■	
Accessories									
Mounting plate		10 pc(s).	9548.000	9548.000	9548.000	9548.000	9548.000	9548.000	47
Hinge		20 pc(s).	9581.000	9581.000	9581.000	9581.000	9581.000	9581.000	47
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	47

without knockouts

Width mm		Packs of	254	254	254	254	254	254	Page
Height mm			180	180	180	180	180	180	
Depth mm			90	90	111	111	165	165	
Model No.		1 pc(s).	**9520.000**	**9520.100**	**9521.000**	**9521.100**	**9522.000**	**9522.100**	
Cover	grey		■	–	■	–	■	–	
	transparent		–	■	–	■	–	■	
Accessories									
Mounting plate		8 pc(s).	9549.000	9549.000	9549.000	9549.000	9549.000	9549.000	47
Hinge		20 pc(s).	9581.000	9581.000	9581.000	9581.000	9581.000	9581.000	47
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	9583.000	9583.000	9583.000	47

without knockouts

Width mm		Packs of	360	360	360	360	Page
Height mm			254	254	254	254	
Depth mm			111	111	165	165	
Model No.		1 pc(s).	**9523.000**	**9523.100**	**9524.000**	**9524.100**	
Cover	grey		■	–	■	–	
	transparent		–	■	–	■	
Accessories							
Mounting plate		4 pc(s).	9550.000	9550.000	9550.000	9550.000	47
Hinge		20 pc(s).	9581.000	9581.000	9581.000	9581.000	47
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	9583.000	47

Polycarbonate enclosures PK

PK accessories Page 47 **System accessories** Page 877 **Cable gland, polyamide** Page 1056

Applications:
- Ambient temperature range: -35 °C...+80 °C
- The specified temperatures may be limited by the installed equipment

Material:
- Enclosure: Fibreglass-reinforced polycarbonate
- Cover: Fibreglass-reinforced polycarbonate, all-round foamed-in PU seal
- Cover screws: Polyamide
- Insulating bungs: Polyethylene

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

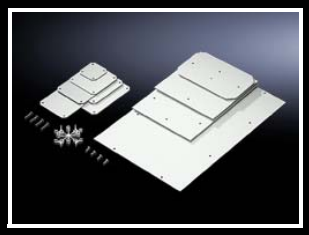
Supply includes:
- Enclosure with cover
- Cover screws
- Insulating bungs for wall mounting screws

Approvals:
- UL
- cUL
- DNV-GL

with knockouts

Width mm			130	180	254	Page
Height mm			94	110	180	
Depth mm			57	90	111	
Model No.			**9508.050**	**9514.050**	**9521.050**	
		Packs of	4 pc(s).	2 pc(s).	1 pc(s).	
Cover	grey		■	■	■	
No. of metric knockouts			10 x M16/M20	16 x M20 2 x M20/M25 2 x M32/M40	24 x M20 4 x M25/M32 4 x M32/M40	
Accessories						
Mounting plate		8 pc(s).	–	–	9549.000	47
Wall mounting bracket		40 pc(s).	9583.000	9583.000	9583.000	47

Mounting plate



for PK
For individual interior installation.

Material:
– 2.5 mm melamine phenol-coated laminated paper

Colour:
– RAL 7035

Supply includes:
– Mounting plate
– Self-tapping assembly screws

Mounting plate width mm	Mounting plate height mm	For enclosure width mm	For enclosure height mm	Packs of	**Model No.**
150	150	182	180	10 pc(s).	**9548.000**
220	150	254	180	8 pc(s).	**9549.000**
331	220	360	254	4 pc(s).	**9550.000**

Hinge

for PK
For hinged attachment of covers. The supplied drilling template ensures problem-free assembly.

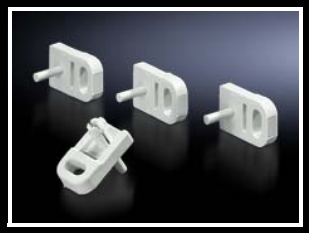
Material:
– Polystyrene

Colour:
– Similar to RAL 7035

Supply includes:
– 20 hinges
– Assembly parts

For enclosure width mm	For enclosure height mm	Material	Packs of	**Model No.**
≥ 180	≥ 110	Polystyrene	20 pc(s).	**9581.000**

Wall mounting bracket



for PK
The enclosure can be screwed to the wall using four wall mounting brackets. The bracket is securely attached to the enclosure by means of pins.

Applications:
– For all PK enclosures

Material:
– Polyamide, grey

Colour:
– Similar to RAL 7035

Packs of	**Model No.**
40 pc(s).	**9583.000**

Cast aluminium enclosures GA

GA accessories Page 49 **System accessories** Page 877

Material:
– Enclosure: Cast aluminium
– Cover: Cast aluminium, all-round CR cellular rubber cord seal

Surface finish:
– Textured paint

Colour:
– RAL 7001

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4

Supply includes:
– Enclosure with cover
– Cover screws, captive
– Screws for attaching support rails
– Screw for connection of the PE conductor

Width mm		58	98	75	125	175	250	122	220	Page
Height mm		64	64	80	80	80	80	120	120	
Depth mm		36	36	58	58	58	58	82	93	
Model No.		**9101.210**	**9102.210**	**9104.210**	**9105.210**	**9106.210**	**9107.210**	**9108.210**	**9110.210**	
	Packs of	5 pc(s).	3 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	
Accessories										
Mounting plate		–	–	–	9105.700	–	–	9108.700	9110.700	49
	Packs of	–	–	–	10 pc(s).	–	–	2 pc(s).	2 pc(s).	–
Wall mounting bracket	2 pc(s).	–	–	–	–	–	–	9121.122	9121.122	49
Support rail		see page	see page	see page	see page	see page	see page	see page	see page	997
Hinge, exterior	2 pc(s).	–	–	–	–	–	–	9123.000	9123.000	49
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	1033
Cable gland, brass		see page	see page	see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	see page	see page	1056

Width mm	Packs of	360	160	260	360	202	280	330	330	Page
Height mm		120	160	160	160	232	232	230	230	
Depth mm		84	93	93	93	113	113	113	183	
Model No.	1 pc(s).	**9111.210**	**9112.210**	**9113.210**	**9114.210**	**9116.210**	**9117.210**	**9118.210**	**9119.210**	
Accessories										
Mounting plate		–	9112.700	9113.700	–	9116.700	9117.700	9118.700	9118.700	49
	Packs of	–	2 pc(s).	2 pc(s).	–	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	–
Wall mounting bracket	2 pc(s).	9121.122	9121.160	9121.160	9121.160	9121.230	9121.230	9121.230	9121.230	49
Support rail		see page	see page	see page	see page	see page	see page	see page	see page	997
Hinge, exterior	2 pc(s).	9123.000	9123.000	9123.000	9123.000	9123.000	9123.000	9123.000	9123.000	49
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	1033
Cable gland, brass		see page	see page	see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	see page	see page	1056

Mounting plate

for GA
For universal interior installation, with mounting holes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Mounting plate width mm	Mounting plate height mm	For enclosure width mm	For enclosure height mm	Packs of	Model No.
114	69	125	80	10 pc(s).	**9105.700**
109	107	122	120	2 pc(s).	**9108.700**
207	107	220	120	2 pc(s).	**9110.700**
145	142	160	160	2 pc(s).	**9112.700**
245	142	260	160	2 pc(s).	**9113.700**
183	214	202	232	1 pc(s).	**9116.700**
264	214	280	232	1 pc(s).	**9117.700**
314	214	330	230	1 pc(s).	**9118.700**

Wall mounting bracket

for GA
For external mounting on surfaces – no need to remove the cover if pre-assembled.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For enclosure height mm	Packs of	Model No.
120	2 pc(s).	**9121.122**
160	2 pc(s).	**9121.160**
≥ 230	2 pc(s).	**9121.230**

Hinge, exterior

for GA
For attaching the cover to the enclosure base.

Material:
– Die-cast aluminium

Colour:
– RAL 7001

Supply includes:
– 2 hinges
– 8 screws

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
≥ 120	≥ 80	2 pc(s).	**9123.000**

Small enclosures KX – Product comparison

Terminal boxes KX, sheet steel	Terminal boxes KX, stainless steel	E-Box KX, sheet steel	
All enclosure panels may be taken directly from the packaging, without dismantling, and machined			
The support rails may optionally be fitted on the integral perforated mounting strip or, to maximise the enclosure depth, directly onto the rear wall of the enclosure		The mounting plate is simply attached from the front and secured to the integral perforated mounting strip in a space-saving solution	
The wall mounting brackets are easily secured from the outside with a self-tapping screw	There is no opening to the wall mounting for hygiene reasons, but the position is prepunched and can be drilled without having to measure and mark out	The wall mounting brackets are easily secured from the outside with a self-tapping screw	
A QR code on the enclosure, door or cover and mounting plate allows seamless monitoring, from receipt of the incoming goods through to delivery of the finished product			
Earthing points accessible from the front facilitate fast, secure mounting of the earth straps			
The mini cam lock may be fitted without using tools, and ensures that the cover is securely seated and centred when latching		The 180° hinges are already prefitted on the door and ready to use, the cam locks may be attached without the use of tools, and the door is easily fitted	
The three-phase surface treatment provides optimum protection against corrosion and is resistant to mineral oils, lubricants, machining emulsions and many solvents	Stainless steel 1.4301 (AISI 304) complies with maximum hygiene and corrosion protection requirements	The three-phase surface treatment provides optimum protection against corrosion and is resistant to mineral oils, lubricants, machining emulsions and many solvents	
from page 56	from page 230	from page 64	

Small enclosures KX – Product comparison

	E-Box KX, stainless steel	Bus enclosures KX, sheet steel	Bus enclosures KX, stainless steel
	All enclosure panels may be taken directly from the packaging, without dismantling, and machined		
	The mounting plate is simply attached from the front and secured to the integral perforated mounting strip in a space-saving solution	The support rails may optionally be fitted on the integral perforated mounting strip or, to maximise the enclosure depth, directly onto the rear wall of the enclosure	
	There is no opening to the wall mounting for hygiene reasons, but the position is prepunched and can be drilled without having to measure and mark out	The wall mounting brackets are easily secured from the outside with a self-tapping screw	There is no opening to the wall mounting for hygiene reasons, but the position is prepunched and can be drilled without having to measure and mark out
	A QR code on the enclosure, door or cover and mounting plate allows seamless monitoring, from receipt of the incoming goods through to delivery of the finished product		
	Earthing points accessible from the front facilitate fast, secure mounting of the earth straps		
	The 180° hinges are prefitted on the door/cover and ready to use, the cam locks may be attached without the use of tools, and the door/cover is easily fitted		
	Stainless steel 1.4301 (AISI 304) and stainless steel 1.4404 (AISI 316L), meets maximum hygiene and corrosion protection requirements	The three-phase surface treatment provides optimum protection against corrosion and is resistant to mineral oils, lubricants, machining emulsions and many solvents	Stainless steel 1.4301 (AISI 304) meets maximum hygiene and corrosion protection requirements
	from page 232	from page 70	from page 234

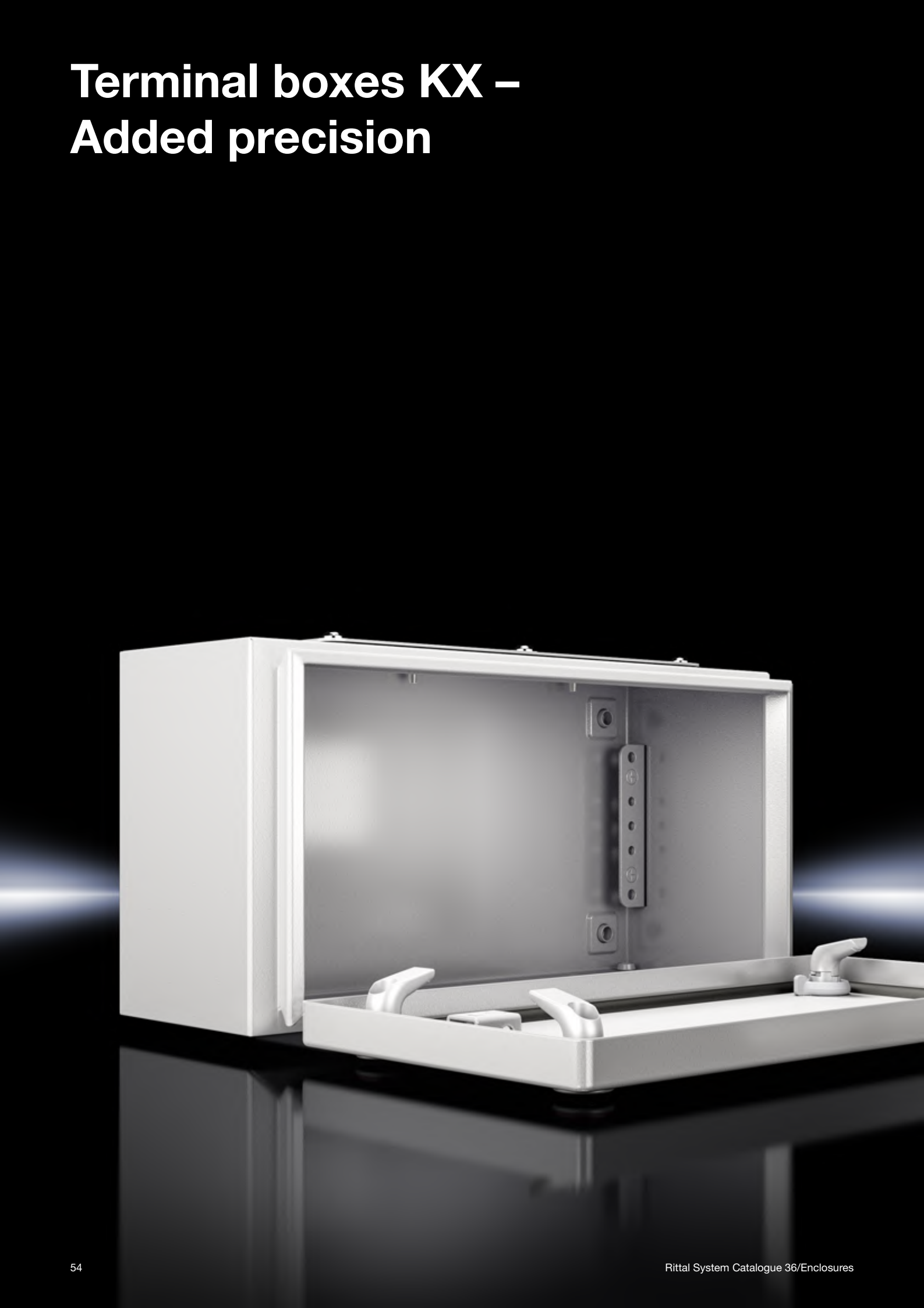
Small enclosures KX – Product overview

Width mm	Height x depth mm	Terminal boxes KX		
		Model No.		Model No.
	Material	Sheet steel	Sheet steel	Stainless steel
	Version	Without gland plate	With gland plate	Without gland plate
150	150 x 80	1514.000	–	1560.000
200		1528.000	–	–
300		1515.000	–	1561.000
150	150 x 120	1500.000	–	1564.000
200		1529.000	–	–
300		1501.000	1530.000	–
400		1589.000	–	–
200	200 x 80	1516.000	–	1562.000
300		1517.000	–	1563.000
400		1518.000	–	–
200	200 x 120	1502.000	–	1565.000
300		1503.000	1531.000	1566.000
400		1504.000	1532.000	1568.000
500		1505.000	1533.000	–
600		1506.000	–	–
800		1527.000	–	–
400	200 x 155	–	–	–
150	300 x 80	–	–	–
200		–	–	–
150	300 x 120	–	–	–
200		–	–	–
300		1507.000	1535.000	1567.000
400		1508.000	1536.000	1569.000
500		1509.000	1537.000	–
600		1510.000	1538.000	–
200	300 x 155	–	–	–
300		–	–	–
380		–	–	–
400		–	–	–
600		–	–	–
800		–	–	–
200	400 x 80	–	–	–
200	400 x 120	–	–	–
300		–	–	–
400		1511.000	1539.000	–
600		1512.000	1540.000	–
800		1513.000	1541.000	–
300	400 x 155	–	–	–
200	500 x 120	–	–	–
300	600 x 155	–	–	–
300	800 x 155	–	–	–
from page		56	59	230

Small enclosures KX – Product overview

		E-Box KX			Bus enclosures KX		
	Width mm	Model No.			Model No.		
		Sheet steel	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4404 (AISI 316L)	Sheet steel	Stainless steel	
		–	–	–	–	–	
	150	**1551.000**	–	–	–	–	
	200	–	–	–	–	–	
	300	–	–	–	–	–	
	150	**1553.000**	–	–	–	–	
	200	–	–	–	–	–	
	300	–	–	–	–	–	
	400	–	–	–	–	–	
	200	**1546.000**	–	–	–	–	
	300	–	–	–	–	–	
	400	–	–	–	–	–	
	200	**1549.000**	–	–	–	–	
	300	–	–	–	–	–	
	400	–	–	–	–	**1585.000**	
	500	–	–	–	–	–	
	600	–	–	–	–	**1586.000**	
	800	–	–	–	–	–	
	400		–	–	**1610.000**	–	
	150	**1545.000**	–	–	–	–	
	200	**1552.000**	–	–	–	**1583.000**	
	150	**1548.000**		–	–	–	
	200	**1554.000**	**1584.000**	–	–	–	
	300	**1555.000**	–	–	–	–	
	400	–	–	–	–	–	
	500	–	–	–	–	–	
	600	–	–	–	–	–	
	200	**1574.000**	**1587.000**	**1301.000**	–	–	
	300	**1575.000**	–	–	–	–	
	380	**1576.000**	**1588.000**	–	–	–	
	400	–	–	–	**1611.000**	–	
	600	–	–	–	**1612.000**	–	
	800	–	–	–	**1613.000**	–	
	200	**1547.000**	–	–	–	–	
	200	**1550.000**	–	–	–	–	
	300	**1556.000**	–	–	–	–	
	400	–	–	–	–	–	
	600	–	–	–	–	–	
	800	–	–	–	–	–	
	300	**1577.000**	–	–	–	–	
	200	**1557.000**	–	–	–	–	
	300	**1578.000**	–	–	–	–	
	300	**1579.000**	–	–	–	–	
		64	232	232	70	234	

Terminal boxes KX – Added precision



Precision

- The mini cam lock is very simple to operate. A quarter of a turn is sufficient to correctly centre the cover while locking; this ensures all-round air-tight positioning.

Ease of assembly

- The standard eyelet in the rear panel allows rapid screw-fastening of the wall mounting bracket from the outside with a self-tapping screw; no need for a lock nut on the inside. The high protection category is retained in full.

Space utilisation

- The support rails may optionally be fitted on the front of the integral perforated mounting strip or, to maximise the enclosure depth, directly onto the rear wall of the enclosure.

Potential equalisation

- Installation of the gland plate includes automatic potential equalisation. Contact is made by two self-tapping screws guided through special holes.

Small enclosures KX

System accessories Page 877 **Terminal boxes KX, stainless steel** Page 230 **Ex enclosures** Page 257 **Hygienic Design** Page 217

Material:
– Enclosure: Sheet steel
– Cover: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Dipcoat primed, powder-coated on the outside, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 66

NEMA protection category:
– NEMA 4

Supply includes:
– Enclosure with cover
– Mini cam locks

Approvals:
– UL
– cUL
Further approvals can be found on the Internet.

Terminal boxes KX, sheet steel, without gland plate

Width mm	Packs of	150	200	200	300	300	400	Page
Height mm		150	150	200	150	200	200	
Depth mm		80	80	80	80	80	80	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1514.000**	**1528.000**	**1516.000**	**1515.000**	**1517.000**	**1518.000**	
Weight kg		1.40	1.45	1.80	1.90	2.39	3.01	
Mini cam lock		4	4	4	4	4	4	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1560.800	1575.800	1562.800	1561.800	1563.800	1564.800	970
Support rails TS 35/7.5	10 pc(s).	2314.000	2315.000	2315.000	2316.000	2316.000	2317.000	997
Support rails TS 35/15		–	–	–	–	–	–	
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2365.000	2365.000	2365.000	2365.000	2365.000	2365.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge	6 pc(s).	1592.200	1592.200	1592.200	1592.200	1592.200	1592.200	951
Earth straps	5 pc(s).	2565.100	2565.100	2565.100	2565.100	2565.100	2565.100	1033
Baying kit		–	–	–	–	–	–	
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	1047

Terminal boxes KX, sheet steel, without gland plate

Width mm	Packs of	150	200	200	300	300	Page
Height mm		150	150	200	150	200	
Depth mm		120	120	120	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1500.000**	**1529.000**	**1502.000**	**1501.000**	**1503.000**	
Weight kg		1.46	1.75	2.13	2.32	2.69	
Mini cam lock		4	4	4	4	4	
Accessories							
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1560.800	1575.800	1562.800	1561.800	1563.800	970
Support rails TS 35/7.5	10 pc(s).	2314.000	2315.000	2315.000	2316.000	2316.000	997
Support rails TS 35/15		–	–	–	–	–	
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge	6 pc(s).	1592.200	1592.200	1592.200	1592.200	1592.200	951
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	1047

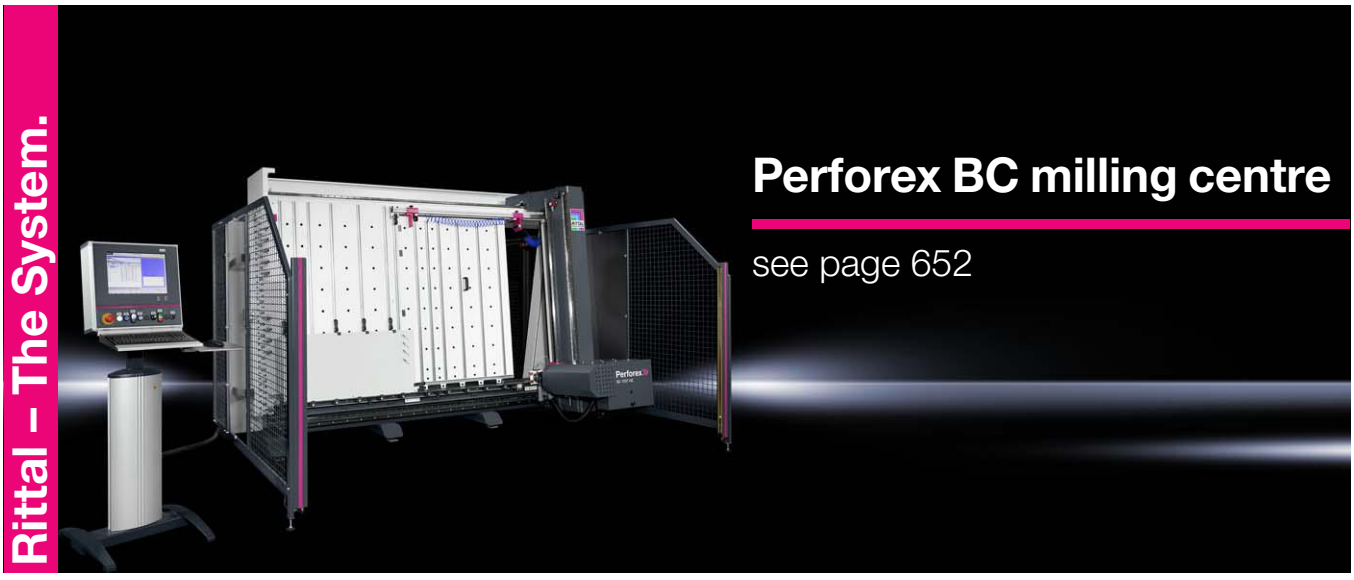
Terminal boxes KX, sheet steel, without gland plate

Width mm	Packs of	300	400	400	400	400	500	Page
Height mm		300	150	200	300	400	200	
Depth mm		120	120	120	120	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1507.000**	**1589.000**	**1504.000**	**1508.000**	**1511.000**	**1505.000**	
Weight kg		3.78	2.98	3.42	4.70	5.67	4.18	
Mini cam lock		4	4	4	4	4	4	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1567.800	1576.800	1564.800	1568.800	1571.800	1565.800	970
Support rails TS 35/7.5	10 pc(s).	2316.000	2317.000	2317.000	2317.000	2317.000	–	997
Support rails TS 35/15	10 pc(s).	–	–	–	–	–	2318.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge	6 pc(s).	1592.200	1592.200	1592.200	1592.200	1592.200	1592.200	951
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	1047

Small enclosures KX

Terminal boxes KX, sheet steel, without gland plate

Width mm	Packs of	500	600	600	600	800	800	Page
Height mm		300	200	300	400	200	400	
Depth mm		120	120	120	120	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1509.000**	**1506.000**	**1510.000**	**1512.000**	**1527.000**	**1513.000**	
Weight kg		5.57	4.92	6.28	8.35	6.45	11.00	
Mini cam lock		4	6	6	6	6	6	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1569.800	1566.800	1570.800	1572.800	1574.800	1573.800	970
Support rails TS 35/7.5		–	–	–	–	–	–	
Support rails TS 35/15	10 pc(s).	2318.000	2319.000	2319.000	2319.000	–	–	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge	6 pc(s).	1592.200	1592.200	1592.200	1592.200	1592.200	1592.200	951
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	1047



System accessories Page 877 **Terminal boxes KX, stainless steel** Page 230 **Ex enclosures** Page 257 **Hygienic Design** Page 217

Material:
– Enclosure: Sheet steel
– Cover: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Dipcoat primed, powder-coated on the outside, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

NEMA protection category:
– NEMA 12

Supply includes:
– Enclosure with cover
– Mini cam locks
– Sheet steel gland plates with seals and assembly parts

Approvals:
– UL
– cUL
Further approvals can be found on the Internet.

Terminal boxes KX, sheet steel, with gland plate

Width mm	Packs of	300	300	300	400	400	400	500	Page
Height mm		150	200	300	200	300	400	200	
Depth mm		120	120	120	120	120	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1530.000**	**1531.000**	**1535.000**	**1532.000**	**1536.000**	**1539.000**	**1533.000**	
Weight kg		2.62	3.12	4.47	3.82	5.40	6.61	4.73	
Mini cam lock		4	4	4	4	4	4	4	
Gland plate (top + bottom), quantity		1 + 1	1 + 1	1 + 1	1 + 1	1 + 1	1 + 1	2 + 2	
Gland plate (left + right), quantity		–	–	1 + 1	–	1 + 1	1 + 1	–	
Accessories									
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1561.800	1563.800	1567.800	1564.800	1568.800	1571.800	1565.800	970
Support rails TS 35/7.5	10 pc(s).	2316.000	2316.000	2316.000	2317.000	2317.000	2317.000	–	997
Support rails TS 35/15		–	–	–	–	–	–	–	
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge	6 pc(s).	1592.200	1592.200	1592.200	1592.200	1592.200	1592.200	1592.200	951
Metal gland plates	1 pc(s).	1581.200	1581.200	1581.200	1581.200	1581.200	1581.200	1581.200	1054
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	1047

Small enclosures KX

Terminal boxes KX, sheet steel, with gland plate

Width mm	Packs of	500	600	600	800	Page
Height mm		300	300	400	400	
Depth mm		120	120	120	120	
Material thickness of enclosure mm		1.25	1.25	1.25	1.25	
Material thickness of cover mm		1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1537.000**	**1538.000**	**1540.000**	**1541.000**	
Weight kg		6.01	7.02	9.32	11.10	
Mini cam lock		4	6	6	6	
Gland plate (top + bottom), quantity		2 + 2	2 + 2	2 + 2	3 + 3	
Gland plate (left + right), quantity		1 + 1	1 + 1	1 + 1	1 + 1	
Accessories						
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1569.800	1570.800	1572.800	1573.800	970
Support rails TS 35/7.5		–	–	–	–	
Support rails TS 35/15	10 pc(s).	2318.000	2319.000	2319.000	–	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	998
Cover hinge	6 pc(s).	1592.200	1592.200	1592.200	1592.200	951
Metal gland plates	1 pc(s).	1581.200	1581.200	1581.200	1581.200	1054
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	1047

UL conformity

Guaranteed when Rittal accessory components are used

E-Box KX –
Added time savings

Protection

- The deliberately slimline enclosure edge fold provides broad, secure contact with the seamless PU foam seal and helps preserve the protection category of IP 66.

Space

- The 180° door hinges create more space and improve access to the enclosure interior.

Ease of assembly

- The standard eyelet in the rear panel allows rapid screw-fastening of the wall mounting bracket from the outside with a self-tapping screw; no need for a lock nut on the inside. The high protection category is retained in full.

Speed

- The mounting plate and door may be taken straight from the packet and are ready for processing.

Small enclosures KX

System accessories Page 877 **E-Box KX, stainless steel** Page 232 **Ex enclosures** Page 257

Material:
– Enclosure: Sheet steel
– Door: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
– Mounting plate: Zinc-plated

Colour:
– RAL 7035

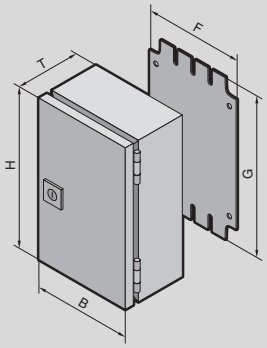
Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4

Supply includes:
– Enclosure with door
– Mounting plate
– Cam lock with 3 mm double-bit insert

Approvals:
– UL
– cUL

Further approvals can be found on the Internet.



E-Box KX, sheet steel, depth 80 mm

Width (B) mm	Packs of	150	150	200	200	200	Page
Height (H) mm		150	300	200	300	400	
Depth (T) mm		80	80	80	80	80	
Mounting plate width (F) mm		125	125	175	175	175	
Mounting plate height (G) mm		135	285	185	285	385	
Material thickness – enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness – door mm		1.25	1.25	1.25	1.25	1.25	
Material thickness – mounting plate mm		2.0	2.0	2.0	2.0	2.0	
Model No.	1 pc(s).	**1551.000**	**1545.000**	**1546.000**	**1552.000**	**1547.000**	
Weight kg		1.49	2.54	2.26	3.18	4.15	
Accessories							
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	968
Support rails TS 35/7.5	10 pc(s).	2314.000	2314.000	2315.000	2315.000	2315.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2365.000	2365.000	2365.000	2365.000	2365.000	1002
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlocks and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	940
Lock insert 7 mm square	1 pc(s).	2460.000	2460.000	2460.000	2460.000	2460.000	941
Lock insert 8 mm square	1 pc(s).	2461.000	2461.000	2461.000	2461.000	2461.000	941
Lock insert 7 mm triangular	1 pc(s).	2462.000	2462.000	2462.000	2462.000	2462.000	941
Lock insert 8 mm triangular	1 pc(s).	2463.000	2463.000	2463.000	2463.000	2463.000	941
Lock insert, screwdriver	1 pc(s).	2464.000	2464.000	2464.000	2464.000	2464.000	941
Lock insert Daimler	1 pc(s).	2465.000	2465.000	2465.000	2465.000	2465.000	941
Lock insert 3 mm double-bit	1 pc(s).	2466.000	2466.000	2466.000	2466.000	2466.000	941
Lock insert Fiat	1 pc(s).	2307.000	2307.000	2307.000	2307.000	2307.000	941
Lock insert 6.5 mm triangular	1 pc(s).	2460.650	2460.650	2460.650	2460.650	2460.650	941
Earth straps	5 pc(s).	2565.100	2565.100	2565.100	2565.100	2565.100	1033
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	1047

Small enclosures KX

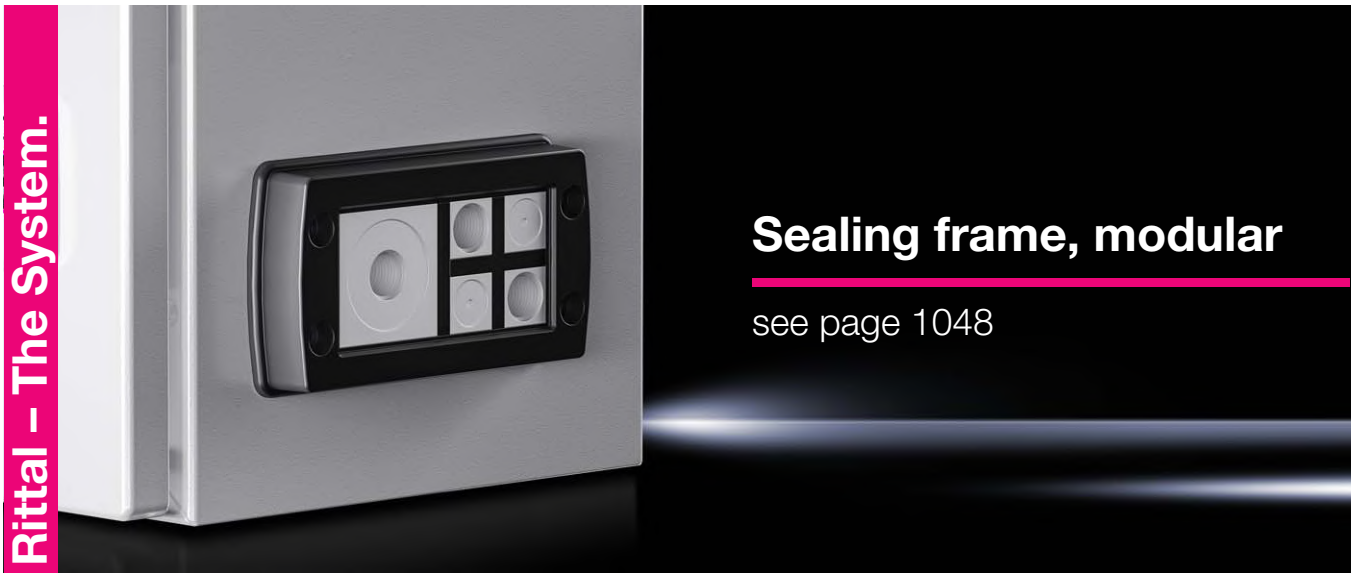
E-Box KX, sheet steel, depth 120 mm

Width (B) mm	Packs of	150	150	200	200	200	200	300	300	Page
Height (H) mm		150	300	200	300	400	500	300	400	
Depth (T) mm		120	120	120	120	120	120	120	120	
Mounting plate width (F) mm		125	125	175	175	175	175	275	275	
Mounting plate height (G) mm		135	285	185	285	385	485	285	385	
Material thickness – enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness – door mm		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness – mounting plate mm		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Model No.	1 pc(s).	**1553.000**	**1548.000**	**1549.000**	**1554.000**	**1550.000**	**1557.000**	**1555.000**	**1556.000**	
Weight kg		1.72	2.93	2.64	3.63	4.62	5.57	5.14	6.38	
Accessories										
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Support rails TS 35/7.5	10 pc(s).	2314.000	2314.000	2315.000	2315.000	2315.000	2315.000	2316.000	2316.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	1002
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlocks and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	940
Lock insert 7 mm square	1 pc(s).	2460.000	2460.000	2460.000	2460.000	2460.000	2460.000	2460.000	2460.000	941
Lock insert 8 mm square	1 pc(s).	2461.000	2461.000	2461.000	2461.000	2461.000	2461.000	2461.000	2461.000	941
Lock insert 7 mm triangular	1 pc(s).	2462.000	2462.000	2462.000	2462.000	2462.000	2462.000	2462.000	2462.000	941
Lock insert 8 mm triangular	1 pc(s).	2463.000	2463.000	2463.000	2463.000	2463.000	2463.000	2463.000	2463.000	941
Lock insert, screwdriver	1 pc(s).	2464.000	2464.000	2464.000	2464.000	2464.000	2464.000	2464.000	2464.000	941
Lock insert Daimler	1 pc(s).	2465.000	2465.000	2465.000	2465.000	2465.000	2465.000	2465.000	2465.000	941
Lock insert 3 mm double-bit	1 pc(s).	2466.000	2466.000	2466.000	2466.000	2466.000	2466.000	2466.000	2466.000	941
Lock insert Fiat	1 pc(s).	2307.000	2307.000	2307.000	2307.000	2307.000	2307.000	2307.000	2307.000	941
Lock insert 6.5 mm triangular	1 pc(s).	2460.650	2460.650	2460.650	2460.650	2460.650	2460.650	2460.650	2460.650	941
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	1047

E-Box KX, sheet steel, depth 155 mm

Width (B) mm	Packs of	200	300	300	300	300	380	Page
Height (H) mm		300	300	400	600	800	300	
Depth (T) mm		155	155	155	155	155	155	
Mounting plate width (F) mm		175	275	275	275	275	365	
Mounting plate height (G) mm		285	285	385	585	785	275	
Material thickness – enclosure mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness – door mm		1.25	1.25	1.25	1.25	1.25	1.25	
Material thickness – mounting plate mm		2.0	2.0	2.0	2.0	2.0	2.0	
Model No.	1 pc(s).	**1574.000**	**1575.000**	**1577.000**	**1578.000**	**1579.000**	**1576.000**	
Weight kg		3.98	5.50	6.98	10.30	12.80	6.64	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Support rails TS 35/7.5	10 pc(s).	2315.000	2316.000	2316.000	2316.000	2316.000	2317.000[1)]	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	2366.000	2366.000	1002
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlocks and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	940
Lock insert 7 mm square	1 pc(s).	2460.000	2460.000	2460.000	2460.000	2460.000	2460.000	941
Lock insert 8 mm square	1 pc(s).	2461.000	2461.000	2461.000	2461.000	2461.000	2461.000	941
Lock insert 7 mm triangular	1 pc(s).	2462.000	2462.000	2462.000	2462.000	2462.000	2462.000	941
Lock insert 8 mm triangular	1 pc(s).	2463.000	2463.000	2463.000	2463.000	2463.000	2463.000	941
Lock insert, screwdriver	1 pc(s).	2464.000	2464.000	2464.000	2464.000	2464.000	2464.000	941
Lock insert Daimler	1 pc(s).	2465.000	2465.000	2465.000	2465.000	2465.000	2465.000	941
Lock insert 3 mm double-bit	1 pc(s).	2466.000	2466.000	2466.000	2466.000	2466.000	2466.000	941
Lock insert Fiat	1 pc(s).	2307.000	2307.000	2307.000	2307.000	2307.000	2307.000	941
Lock insert 6.5 mm triangular	1 pc(s).	2460.650	2460.650	2460.650	2460.650	2460.650	2460.650	941
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	2400.500	2400.500	1047

[1)] Must be cut to length accordingly



Bus enclosures KX – Added clarity

Flexibility

- Depending on requirements, the enclosures may be fitted with support rails or mounting plates.
- The support rails may optionally be fitted on the front of the integral perforated mounting strip or, to maximise the enclosure depth, directly onto the rear wall of the enclosure.

Precision

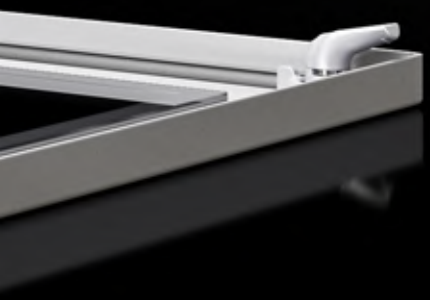
- The quick-release fastener is very simple to operate. A quarter of a turn is sufficient to correctly centre the cover while locking; this ensures all-round air-tight positioning.

Access

- The wide door opening angle of up to 180° gives you plenty of space to fit and replace modules quickly and easily. The large viewing window is convenient for continuously monitoring the components inside the enclosure.

Ease of assembly

- The standard eyelet in the rear panel allows rapid screw-fastening of the wall mounting bracket from the outside with a self-tapping screw; no need for a lock nut on the inside. The high protection category is retained in full.



Small enclosures KX

System accessories Page 877 **Bus enclosures KX, stainless steel** Page 234

Material:
– Enclosure: Sheet steel
– Cover: Sheet steel, all-round foamed-in PU seal
– Viewing window: Polycarbonate, 4 mm

Surface finish:
– Enclosure and cover: Dipcoat-primed, powder-coated on the outside, textured paint

Colour:
– RAL 7035

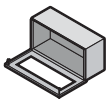
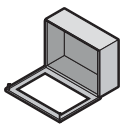
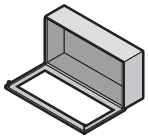
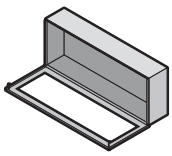
Protection category IP to IEC 60 529:
– IP 65

Protection category NEMA:
– NEMA 12

Supply includes:
– Enclosure with hinged cover
– Viewing window in cover
– Mini cam lock

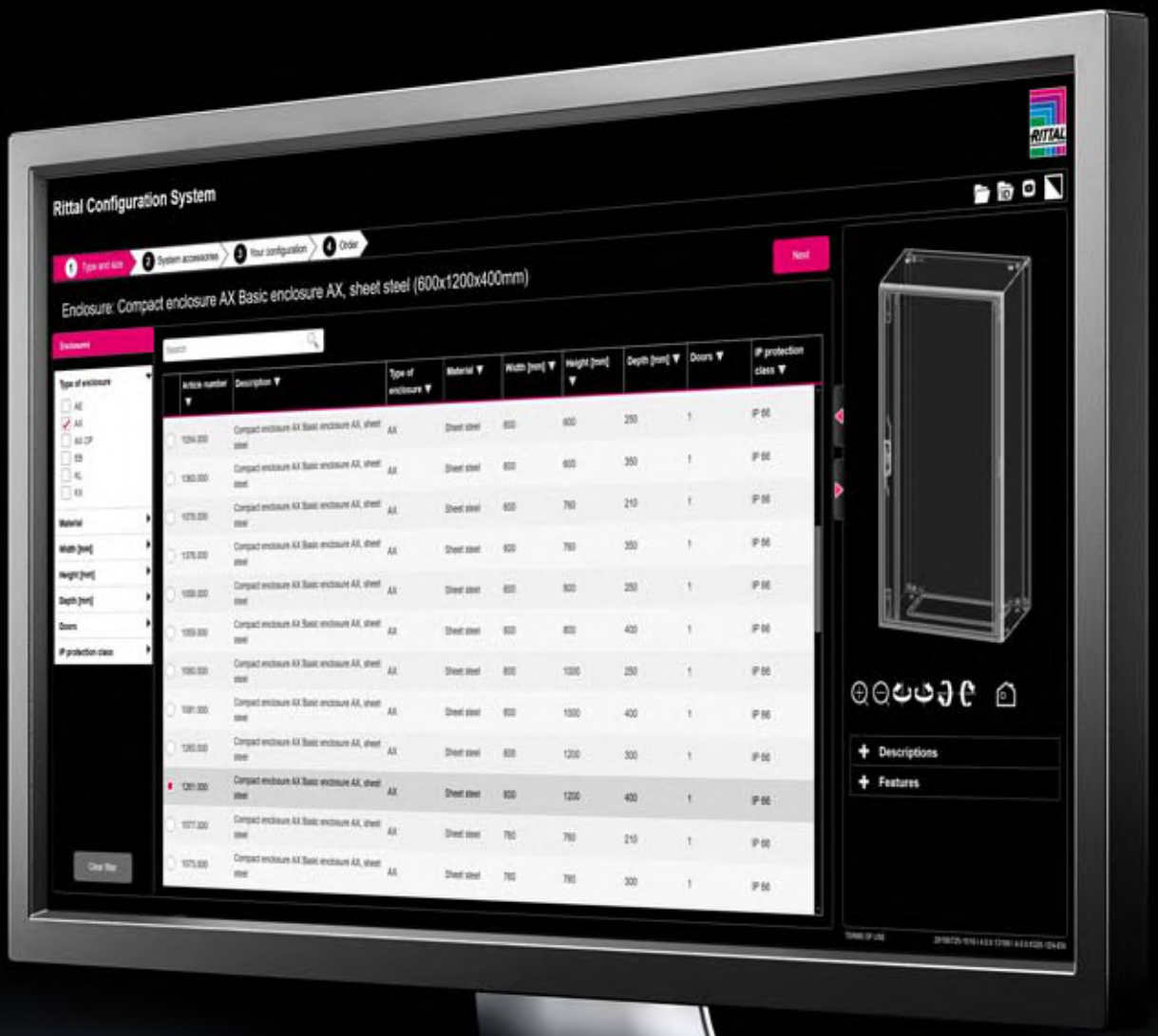
Approvals:
– UL
– cUL
Further approvals can be found on the Internet.

Bus enclosures KX, sheet steel

						
Width mm	Packs of	400	400	600	800	Page
Height mm		200	300	300	300	
Depth mm		155	155	155	155	
Material thickness – enclosure mm		1.25	1.25	1.25	1.25	
Material thickness – cover mm		1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1610.000**	**1611.000**	**1612.000**	**1613.000**	
Weight kg		2.36	4.72	5.47	7.78	
Accessories						
Wall mounting bracket, for AX sheet steel, KX sheet steel	4 pc(s).	1590.010	1590.010	1590.010	1590.010	965
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1564.800	1568.800	1570.800	1570.810	970
Support rails TS 35/7.5	10 pc(s).	2317.000	2317.000	2319.000	2317.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	998
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	900
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	916
Earth straps	5 pc(s).	2565.050	2565.050	2565.050	2565.050	1033
Self-tapping screws	300 pc(s).	2487.000	2487.000	2487.000	2487.000	1004
Connector gland, small	5 pc(s).	2400.500	2400.500	2400.500	2400.500	1047

Rittal Configuration System

Plausibility-checked configuration of products and accessories, see page 272



Configure online at
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Compact enclosures

Compact enclosures AX

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Plastic enclosures AX

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Compact enclosures AX – Product comparison

Basic enclosure AX, single-door, sheet steel	Basic enclosure AX, single door, stainless steel	Basic enclosure AX, two-door, sheet steel	
All enclosure panels may be taken directly from the packaging, without dismantling, and machined			
Interior installation on a 25 mm pitch pattern; no machining required			
Wall mounting brackets are easily secured from the outside with a self-tapping screw while retaining the UL	There is no opening to the wall mounting for hygiene reasons, but the position is prepunched and can be drilled without having to measure and mark out	Wall mounting brackets are easily secured from the outside with a self-tapping screw while retaining the UL	
A QR code on the enclosure, door and mounting plate allows seamless monitoring, from receipt of the incoming goods through to delivery of the finished product			
Simple earthing, even retrospectively, using machined keyholes in the mounting plate, and in the case of sheet steel enclosures, in the perforated door strip			
For enclosures with a cam lock, the door and cam locks are rapidly fitted with no need for tools. For enclosures with 3-point locking system, the doors and locks are fully assembled. The locked door is easily relocated without machining the enclosure.			
Up to 33% larger gland plates support cable entry with ever-higher packing densities	The fully sealed base ensures a high protection category of up to IP 66	Up to 33% larger gland plates support cable entry with ever-higher packing densities	
The three-phase surface treatment provides optimum protection against corrosion and is resistant to mineral oils, lubricants, machining emulsions and many solvents	Stainless steel 1.4301 (AISI 304) and stainless steel 1.4404 (AISI 316L) meet maximum hygiene and corrosion protection requirements	The three-phase surface treatment provides optimum protection against corrosion and is resistant to mineral oils, lubricants, machining emulsions and many solvents	
from page 84	from page 236	from page 84	

Compact enclosures AX – Product comparison

	Basic enclosure AX, two-door, sheet steel	Plastic enclosure AX, without viewing window	Plastic enclosure AX, with viewing window
	All enclosure panels may be taken directly from the packaging, without dismantling, and machined	Fully preassembled enclosure	
	Interior installation on a 25 mm pitch pattern; no machining required	Numerous mounting lugs for direct mounting of punched sections and rails for interior installation on a 25 mm pitch pattern	
	There is no opening to the wall mounting for hygiene reasons, but the position is prepunched and can be drilled without having to measure and mark out	The wall mounting brackets are easily secured from the outside while retaining the UL	
	A QR code on the enclosure, door and mounting plate allows seamless monitoring, from receipt of the incoming goods through to delivery of the finished product		
	Simple earthing, even retrospectively, using machined keyholes in the mounting plate and perforated door strip	Simple earthing of the mounting plate, even retrospectively, using machined keyholes	
	The cam locks are rapidly fitted with no need for tools. For enclosures with a locking rod, the doors and locks are fully assembled.	The door hinge is easily swapped from right to left. The integral rain protection strip on the top and bottom of the door provides a double sealing level. The standard double-bit lock insert is easily exchanged for type A lock inserts.	
	The fully sealed base ensures a high protection category of up to IP 55	All-round cable entry is supported with the modular sealing frame and cable glands	
	Stainless steel 1.4301 (AISI 304) and stainless steel 1.4404 (AISI 316L) meet maximum hygiene and corrosion protection requirements	The enclosure is made from fibreglass-reinforced, UL-certified plastic with a high level of chemical and UV resistance, all-insulated and suitable for outdoor applications	
	from page 236	Page 94	Page 95

Compact enclosures AX – Product overview

				Basic enclosures AX		
Height x depth mm	**Width mm**	**Doors**	**Lock system**	**Model No.**	**Model No.**	
Material				Sheet steel	Stainless steel 1.4301 (AISI 304)	Stainless steel 1.4404 (AISI 316L)
300 x 210	300	1	1/□	**1033.000**	**1003.000**	–
	380	1	1/□	**1031.000**	**1011.000**	–
350 x 150	250	–	–	–	–	–
380 x 210	300	1	1/□	–	**1005.000**	**1302.000**
	380	1	1/□	**1380.000**	**1006.000**	**1303.000**
	600	1	1/□	**1039.000**	**1009.000**	–
380 x 350	600	1	1/□	**1339.000**	–	–
400 x 200	300	–	–	–	–	–
	400	–	–	–	–	–
400 x 210	300	1	1/□	**1034.000**	–	–
500 x 210	400	1	2/□	**1045.000**	**1015.000**	–
	500	1	2/□	**1050.000**	**1007.000**	–
500 x 300	500	1	2/□	**1350.000**	**1013.000**	–
600 x 200	400	–	–	–	–	–
	600	–	–	–	–	–
600 x 210	380	1	2/□	**1038.000**	**1008.000**	–
	600	1	2/□	**1060.000**	**1010.000**	**1304.000**
600 x 250	600	1	2/□	**1054.000**	–	–
600 x 300	800	1	2/□	**1055.000**	–	–
600 x 350	380	1	2/□	**1338.000**	–	–
	600	1	2/□	**1360.000**	–	–
700 x 250	500	1	2/□	**1057.000**	–	–
760 x 210	600	1	2/□	**1076.000**	**1012.000**	–
	760	1	2/□	**1077.000**	–	–
	1000	2	2/□	**1100.000**		–
760 x 300	760	1	2/□	**1073.000**	**1014.000**	–
	1000	2	2/□	**1130.000**	–	–
760 x 350	600	1	2/□	**1376.000**	–	–
800 x 250	600	1	2/□	**1058.000**	–	–
800 x 300	400	1	2/□	**1037.000**	–	–
	600	–	–	–	–	–
800 x 400	600	1	2/□	**1059.000**	–	–
1000 x 250	600	1	2/□	**1090.000**	–	–
1000 x 300	800	1	2/□	**1180.000**	**1016.000**	–
	1000	2	2/□	**1110.000**	**1018.000**	–
1000 x 400	600	1	2/□	**1091.000**	–	–
	800	1	2/□	**1181.000**	–	–
1200 x 300	600	1	■	**1260.000**	–	–
	800	1	■	**1280.000**	**1017.000**	–
	1000	2	■	**1213.000**	**1019.000**	**1305.000**
1200 x 400	600	1	■	**1261.000**	–	–
	800	1	■	**1281.000**	–	–
	1000	2	■	**1214.000**	–	–
	1200	2	■	**1116.000**	–	–
1400 x 300	1000	2	■	**1114.000**	–	–
1400 x 400	1000	2	■	**1115.000**	–	–
from page				84	236	236

□ Cam lock ■ 3-point locking system

Compact enclosures AX – Product overview

	Width mm	Doors	Lock system	Plastic enclosures AX, without viewing window Model No. Fibreglass-reinforced unsaturated polyester	Plastic enclosures AX, with viewing window Model No. Fibreglass-reinforced unsaturated polyester	
	300	–	–	–	–	
	380	–	–	–	–	
	250	1	1/□	**1432.000**	–	
	300	–	–	–	–	
	380	–	–	–	–	
	600	–	–	–	–	
	600	–	–	–	–	
	300	1	2/□	**1434.000**	–	
	400	1	2/□	**1444.000**	**1448.000**	
	300	–	–	–	–	
	400	–	–	–	–	
	500	–	–	–	–	
	500	1	2/□	**1453.000**	**1454.000**	
	400	1	2/□	**1446.000**	**1449.000**	
	600	1	2/□	**1466.000**	**1467.000**	
	380	–	–	–	–	
	600	–	–	–	–	
	600	–	–	–	–	
	800	–	–	–	–	
	380	–	–	–	–	
	600	–	–	–	–	
	500	–	–	–	–	
	600	–	–	–	–	
	760	–	–	–	–	
	1000	–	–	–	–	
	760	–	–	–	–	
	1000	–	–	–	–	
	600	–	–	–	–	
	600	–	–	–	–	
	400	–	–	–	–	
	600	1	2/□	**1468.000**	**1469.000**	
	600	–	–	–	–	
	600	–	–	–	–	
	800	1	3/□	**1480.000**	**1479.000**	
	1000	–	–	–	–	
	600	–	–	–	–	
	800	–	–	–	–	
	600	–	–	–	–	
	800	–	–	–	–	
	1000	–	–	–	–	
	600	–	–	–	–	
	800	–	–	–	–	
	1000	–	–	–	–	
	1200	–	–	–	–	
	1000	–	–	–	–	
	1000	–	–	–	–	
				94	95	

□ Cam lock ■ 3-point locking system

Compact enclosures AX – Added protection

Flexibility/stability

- The integrated locators in the enclosure support the use of an interior installation rail for time-saving, precise installation with Rittal punched sections with mounting flanges and accessories.
- The height-flexible, form-fit rail used in the continuous pattern of locators for interior installation increases stability, especially with dynamic loads.

Protection

- The deliberately slimline enlcosure edge fold provides broad, secure contact with the seamless PU foam seal and helps preserve the protection category (up to IP 66) and protection class IK 10.

Potential equalisation

- Special drilled holes in the gland plate ensure automatic potential equalisation during screw-fastening, which saves time and materials as well as enhancing safety.

Ease of assembly

- The standard eyelet in the rear panel allows rapid screw-fastening of the wall mounting bracket from the outside with a self-tapping screw; no need for a lock nut on the inside. The high protection category is retained in full.

Compact enclosures AX – Added efficiency

Ease of installation/flexibility

- Tool-free installation of the doors saves extra time. Simply position the door, press down on the hinge pin, and it's done.
- The AX door hinge allows you to swap the hinge to the opposite side, even with two-door enclosures, without any machining of the enclosure. This allows simple, fast relocation of the lockable door while the space-saving door population translates into extra space gains.

Area extension

- The perforated door strip with U extrusion and system punchings on a flexible 25 mm pitch pattern allows fast, simple extension of the installation area. Because it is compatible with Rittal system accessories, no door machining is required.

Time savings/rapid assembly

- Cam locks are supplied loose to allow unobstructed machining of the door. No time-consuming dismantling work is required in advance.
- Lock installation is fast and tool-free. Simply insert, lock into place, and voilà!

The perfect fit

- The runner on the perforated door strip ensures that even heavily populated doors fit precisely and are compliant with the protection category.

Compact enclosures AX – Added system benefits

Reliable engineering

- A wide range of conversion and planning tools are available to Rittal customers to support them with the automated production process and when working with a virtual prototype:
  - Configurators
  - Parts list converters
  - EPLAN Pro Panel
  - 2D/3D CAD data
  - ecl@ss Advanced
  - Technical documentation
  - Data for planners
  - Assembly videos

Digitalization

- The QR code on all machinable enclosure panels permits fully automated incorporation into the production workflow, for seamless digital monitoring from the incoming goods right through to the finished product.

Diverse industries

- The choice of sheet steel or stainless steel allows the AX to be used in any industry, at any location, in any climate, in any environment, and in a wide range of individual applications.

Time savings

- The process-optimised packaging concept means it can go straight into production, because all panels and cam locks are supplied unfitted, so no dismantling is required.

Compact enclosures AX

System accessories Page 877 **AX stainless steel** Page 236 **AX plastic** Page 92 **Hygienic Design** Page 217 **Outdoor housing** Page 958

Material:
– Enclosure: Sheet steel
– Door: Sheet steel, all-round foamed-in PU seal

Surface finish:
– Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
– Mounting plate: Zinc-plated

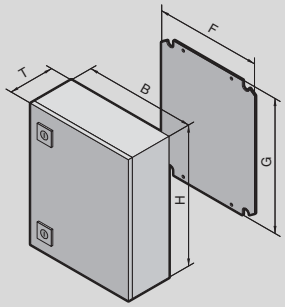
Colour:
– RAL 7035

Supply includes:
– Enclosure with door(s)
– Gland plate(s) in enclosure base
– Mounting plate
– Perforated door strip
– Lock: 3 mm double-bit

Please note the product-specific scope of supply.

Approvals:
– UL
– cUL

Further approvals can be found on the Internet.



Basic enclosure AX, sheet steel

Width (B) mm	Packs of	300	300	Page
Height (H) mm		300	400	
Depth (T) mm		210	210	
Mounting plate width (F) mm		250	250	
Mounting plate height (G) mm		275	375	
Material thickness – enclosure mm		1.25	1.25	
Material thickness – door mm		1.5	1.5	
Material thickness – mounting plate mm		2.0	2.0	
Model No.	1 pc(s).	**1033.000**	**1034.000**	
Weight kg		6.7	8.38	
Protection category IP to IEC 60 529		IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	
Product-specific scope of supply				
Door(s)		1	1	
Door hinged on the right, may be swapped to the left		■	■	
Gland plate, size		1	1	
Gland plate, qty		1	1	
Cam lock		1	1	
Accessories				
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	967
Pole clamp	2 pc(s).	2584.100	2584.100	968
Plastic gland plate, modular	1 pc(s).	2561.200	2561.200	1050
Plastic gland plate with membranes	1 pc(s).	2561.300	2561.300	1052
Metal gland plate with knockouts	1 pc(s).	2571.100	2571.100	1053
Sealing frame, modular		see page	see page	1048
Rail for interior installation	4 pc(s).	2393.210	2393.210	989
Support strips, installation in the door		–	–	
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	–	8619.700	990
Punched section with mounting flange 14 x 39 mm, installation in the door		–	–	
LED system light		–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	940
Comfort handle AX for lock inserts or profile half-cylinders		–	–	
Comfort handle AX for padlock and lock inserts or profile half-cylinders		–	–	
Lock inserts		see page	see page	941, 942
Viewing window, depth 36 mm		–	–	
Viewing window, depth 62 mm		–	–	
Operating panel		–	–	
180° hinge	3 pc(s).	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable		–	–	
Plastic wiring plan pockets		see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		–	–	
Base/plinth trim panels, sides, 100 mm		–	–	
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		–	–	
Base/plinth trim panels, sides, 200 mm		–	–	
Eyebolts		–	–	
Protective roof	1 pc(s).	2361.010	2361.010	958
Dust guard trim	1 pc(s).	2426.500	2426.500	959
Earth straps		see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	916
Cable gland, brass		see page	see page	1056
Cable gland, polyamide		see page	see page	1056

Compact enclosures AX

Basic enclosure AX, sheet steel

Width (B) mm	Packs of	380	380	380	380	400	400	Page
Height (H) mm		300	380	600	600	500	800	
Depth (T) mm		210	210	210	350	210	300	
Mounting plate width (F) mm		330	330	330	330	350	345	
Mounting plate height (G) mm		275	355	575	575	475	775	
Material thickness – enclosure mm		1.25	1.25	1.25	1.5	1.25	1.5	
Material thickness – door mm		1.5	1.5	1.5	1.5	1.5	2.0	
Material thickness – mounting plate mm		2.0	2.0	2.5	2.5	2.0	2.5	
Model No.	1 pc(s).	**1031.000**	**1380.000**	**1038.000**	**1338.000**	**1045.000**	**1037.000**	
Weight kg		8.8	9.48	14.4	18.6	12.1	24.9	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply								
Door(s)		1	1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	
Gland plate, size		2	2	2	5	2	5	
Gland plate, qty		1	1	1	1	1	1	
Cam lock		1	1	2	2	2	2	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Plastic gland plate, modular	1 pc(s).	2562.200	2562.200	2562.200	2565.200	2562.200	2565.200	1050
Plastic gland plate with membranes	1 pc(s).	2562.300	2562.300	2562.300	2565.300	2562.300	2565.300	1052
Metal gland plate with knockouts	1 pc(s).	2572.100	2572.100	2572.100	2575.100	2572.100	2575.100	1053
Sealing frame, modular		see page	see page	see page	see page	see page	see page	1048
Rail for interior installation	4 pc(s).	2393.210	2393.210	2393.210	2393.350	2393.210	2393.300	989
Support strips, installation in the door	20 pc(s).	4599.100	4599.100	4599.100	4599.100	4694.000	4694.000	952
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	–	–	–	–	8619.710	8619.730	990
Punched section with mounting flange 14 x 39 mm, installation in the door		–	–	–	–	–	–	
LED system light	1 pc(s).	–	–	–	–	2500.100	2500.100	1014
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	940
Comfort handle AX for lock inserts or profile half-cylinders		–	–	–	–	–	–	
Comfort handle AX for padlock and lock inserts or profile half-cylinders		–	–	–	–	–	–	
Lock inserts		see page	see page	see page	see page	see page	see page	941, 942
Viewing window, depth 36 mm		–	–	–	–	–	–	
Viewing window, depth 62 mm		–	–	–	–	–	–	
Operating panel	1 pc(s).	2741.010	2742.010	2743.010	2743.010	–	–	931
180° hinge	3 pc(s).	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable	1 pc(s).	–	–	–	–	2515.200	2515.200	954
Plastic wiring plan pockets		see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	see page	see page	see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		–	–	–	–	–	–	
Base/plinth trim panels, sides, 100 mm		–	–	–	–	–	–	
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		–	–	–	–	–	–	
Base/plinth trim panels, sides, 200 mm		–	–	–	–	–	–	
Eyebolts		–	–	–	–	–	–	
Protective roof	1 pc(s).	2472.010	2472.010	2472.010	–	–	–	958
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	959
Earth straps		see page	see page	see page	see page	see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass		see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	1056

Basic enclosure AX, sheet steel

Width (B) mm	Packs of	500	500	500	600	600	600	Page
Height (H) mm		500	500	700	380	380	600	
Depth (T) mm		210	300	250	210	350	210	
Mounting plate width (F) mm		450	450	450	550	550	550	
Mounting plate height (G) mm		475	475	675	355	355	575	
Material thickness – enclosure mm		1.25	1.5	1.5	1.25	1.5	1.5	
Material thickness – door mm		1.5	1.5	2.0	1.5	1.5	1.5	
Material thickness – mounting plate mm		2.5	2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1050.000**	**1350.000**	**1057.000**	**1039.000**	**1339.000**	**1060.000**	
Weight kg		15.4	19.0	25.0	14.4	8.7	22.3	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply								
Door(s)		1	1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	
Gland plate, size		3	6	3	4	7	4	
Gland plate, qty		1	1	1	1	1	1	
Cam lock		2	2	2	1	1	2	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Plastic gland plate, modular	1 pc(s).	2563.200	2566.200	2563.200	2564.200	2567.200	2564.200	1050
Plastic gland plate with membranes	1 pc(s).	2563.300	2566.300	2563.300	2564.300	2567.300	2564.300	1052
Metal gland plate with knockouts	1 pc(s).	2573.100	2576.100	2573.100	2574.100	2577.100	2574.100	1053
Sealing frame, modular		see page	see page	see page	see page	see page	see page	1048
Rail for interior installation	4 pc(s).	2393.210	2393.300	2393.250	2393.210	2393.350	2393.210	989
Support strips, installation in the door	20 pc(s).	4695.000	4695.000	4695.000	4696.000	4696.000	4696.000	952
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	8619.710	8619.710	8619.760	–	–	8619.720	990
Punched section with mounting flange 14 x 39 mm, installation in the door		–	–	–	–	–	–	
LED system light	1 pc(s).	2500.100	2500.100	2500.100	2500.100	2500.100	2500.100	1014
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	940
Comfort handle AX for lock inserts or profile half-cylinders		–	–	–	–	–	–	
Comfort handle AX for padlock and lock inserts or profile half-cylinders		–	–	–	–	–	–	
Lock inserts		see page	see page	see page	see page	see page	see page	941, 942
Viewing window, depth 36 mm	1 pc(s).	2733.010	2733.010	–	2730.010	2730.010	2731.010	930
Viewing window, depth 62 mm	1 pc(s).	2763.010	2763.010	–	2760.010	2760.010	2761.010	930
Operating panel	1 pc(s).	2745.010	2745.010	–	2744.010	–	2746.010	931
180° hinge	3 pc(s).	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable	1 pc(s).	2515.200	2515.200	2515.200	2515.300	2515.300	2515.300	954
Plastic wiring plan pockets		see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	see page	see page	see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		–	–	–	–	–	–	
Base/plinth trim panels, sides, 100 mm		–	–	–	–	–	–	
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		–	–	–	–	–	–	
Base/plinth trim panels, sides, 200 mm		–	–	–	–	–	–	
Eyebolts		–	–	–	–	–	–	
Protective roof	1 pc(s).	2362.010	–	–	2473.010	–	2473.010	958
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	959
Earth straps		see page	see page	see page	see page	see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass		see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	1056

Compact enclosures AX

Basic enclosure AX, sheet steel

Width (B) mm	Packs of	600	600	600	600	600	600	Page
Height (H) mm		600	600	760	760	800	800	
Depth (T) mm		250	350	210	350	250	400	
Mounting plate width (F) mm		550	550	550	550	545	545	
Mounting plate height (G) mm		575	575	735	735	775	775	
Material thickness – enclosure mm		1.5	1.5	1.5	1.5	1.5	1.5	
Material thickness – door mm		1.5	1.5	2.0	2.0	2.0	2.0	
Material thickness – mounting plate mm		2.5	2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1054.000**	**1360.000**	**1076.000**	**1376.000**	**1058.000**	**1059.000**	
Weight kg		23.4	26.3	29.5	34.0	32.0	40.0	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply								
Door(s)		1	1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	
Gland plate, size		4	7	4	7	4	7	
Gland plate, qty		1	1	1	1	1	1	
Cam lock		2	2	2	2	2	2	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Plastic gland plate, modular	1 pc(s).	2564.200	2567.200	2564.200	2567.200	2564.200	2567.200	1050
Plastic gland plate with membranes	1 pc(s).	2564.300	2567.300	2564.300	2567.300	2564.300	2567.300	1052
Metal gland plate with knockouts	1 pc(s).	2574.100	2577.100	2574.100	2577.100	2574.100	2577.100	1053
Sealing frame, modular		see page	see page	see page	see page	see page	see page	1048
Rail for interior installation	4 pc(s).	2393.250	2393.350	2393.210	2393.350	2393.250	2393.400	989
Support strips, installation in the door	20 pc(s).	4696.000	4696.000	4696.000	4696.000	4696.000	4696.000	952
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	8619.720	8619.720	8619.790	8619.790	8619.730	8619.730	990
Punched section with mounting flange 14 x 39 mm, installation in the door		–	–	–	–	–	–	
LED system light	1 pc(s).	2500.100	2500.100	2500.100	2500.100	2500.110	2500.110	1014
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	2537.300	940
Comfort handle AX for lock inserts or profile half-cylinders		–	–	–	–	–	–	
Comfort handle AX for padlock and lock inserts or profile half-cylinders		–	–	–	–	–	–	
Lock inserts		see page	see page	see page	see page	see page	see page	941, 942
Viewing window, depth 36 mm	1 pc(s).	2731.010	2731.010	2732.010	2732.010	–	–	930
Viewing window, depth 62 mm	1 pc(s).	2761.010	2761.010	2762.010	2762.010	–	–	930
Operating panel	1 pc(s).	2746.010	2746.010	–	–	–	–	931
180° hinge	3 pc(s).	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable	1 pc(s).	2515.300	2515.300	2515.300	2515.300	2515.300	2515.300	954
Plastic wiring plan pockets		see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	see page	see page	see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	–	–	–	–	–	2820.061	888
Base/plinth trim panels, sides, 100 mm	2 pc(s).	–	–	–	–	–	2820.410	889
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	–	–	–	–	–	2820.062	888
Base/plinth trim panels, sides, 200 mm	2 pc(s).	–	–	–	–	–	2820.420	889
Eyebolts	2 pc(s).	–	–	–	–	–	2509.010	964
Protective roof	1 pc(s).	–	2476.010	2473.010	2476.010	–	–	958
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	959
Earth straps		see page	see page	see page	see page	see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass		see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	1056

Basic enclosure AX, sheet steel

Width (B) mm	Packs of	600	600	600	600	760	760	Page
Height (H) mm		1000	1000	1200	1200	760	760	
Depth (T) mm		250	400	300	400	210	300	
Mounting plate width (F) mm		545	545	545	545	705	705	
Mounting plate height (G) mm		975	975	1175	1175	735	735	
Material thickness – enclosure mm		1.5	1.5	1.5	1.5	1.5	1.5	
Material thickness – door mm		2.0	2.0	2.0	2.0	2.0	2.0	
Material thickness – mounting plate mm		2.5	2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1090.000**	**1091.000**	**1260.000**	**1261.000**	**1077.000**	**1073.000**	
Weight kg		39.5	50.0	50.0	56.0	36.7	42.0	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	
Product-specific scope of supply								
Door(s)		1	1	1	1	1	1	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	
Gland plate, size		4	7	7	7	2	5	
Gland plate, qty		1	1	1	1	2	2	
Cam lock		2	2	–	–	2	2	
3-point lock system		–	–	■	■	–	–	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	–	–	968
Plastic gland plate, modular	1 pc(s).	2564.200	2567.200	2567.200	2567.200	2562.200	2565.200	1050
Plastic gland plate with membranes	1 pc(s).	2564.300	2567.300	2567.300	2567.300	2562.300	2565.300	1052
Metal gland plate with knockouts	1 pc(s).	2574.100	2577.100	2577.100	2577.100	2572.100	2575.100	1053
Sealing frame, modular		see page	see page	see page	see page	see page	see page	1048
Rail for interior installation	4 pc(s).	2393.250	2393.400	2393.300	2393.400	2393.210	2393.300	989
Support strips, installation in the door	20 pc(s).	4696.000	4696.000	4596.000	4596.000	4599.200	4599.200	952
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	8619.750	8619.750	8619.770	8619.770	8619.790	8619.790	990
Punched section with mounting flange 14 x 39 mm, installation in the door	4 pc(s).	–	–	8619.720	8619.720	–	–	952
LED system light	1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	1014
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	–	–	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	–	–	2537.300	2537.300	940
Comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	–	–	2435.100	2435.100	–	–	939
Comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	–	–	2435.400	2435.400	–	–	939
Lock inserts		see page	see page	see page	see page	see page	see page	941, 942
Viewing window, depth 36 mm		–	–	–	–	–	–	
Viewing window, depth 62 mm		–	–	–	–	–	–	
Operating panel		–	–	–	–	–	–	
180° hinge	3 pc(s).	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable	1 pc(s).	2515.300	2515.300	2515.300	2515.300	2515.400	2515.400	954
Plastic wiring plan pockets		see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	see page	see page	see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	–	2820.061	2820.061	2820.061	–	–	888
Base/plinth trim panels, sides, 100 mm	2 pc(s).	–	2820.410	2820.310	2820.410	–	–	889
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	–	2820.062	2820.062	2820.062	–	–	888
Base/plinth trim panels, sides, 200 mm	2 pc(s).	–	2820.420	2820.320	2820.420	–	–	889
Eyebolts	2 pc(s).	–	2509.010	2509.010	2509.010	–	–	964
Protective roof	1 pc(s).	–	–	–	–	–	2474.010	958
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	959
Earth straps		see page	see page	see page	see page	see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass		see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	1056

Compact enclosures AX

Basic enclosure AX, sheet steel

Width (B) mm	Packs of	800	800	800	800	800	1000	Page
Height (H) mm		600	1000	1000	1200	1200	760	
Depth (T) mm		300	300	400	300	400	210	
Mounting plate width (F) mm		750	745	745	745	745	945	
Mounting plate height (G) mm		575	975	975	1175	1175	735	
Material thickness – enclosure mm		1.5	1.5	1.5	1.5	1.5	1.5	
Material thickness – door mm		2.0	2.0	2.0	2.0	2.0	2.0	
Material thickness – mounting plate mm		2.5	2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1055.000**	**1180.000**	**1181.000**	**1280.000**	**1281.000**	**1100.000**	
Weight kg		34.2	52.0	59.5	63.5	69.0	49.0	
Protection category IP to IEC 60 529		IP 66	IP 66	IP 66	IP 66	IP 66	IP 55	
Protection category NEMA		NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 4	NEMA 12	
Product-specific scope of supply								
Door(s)		1	1	1	1	1	2	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	
Gland plate, size		5	5	5	5	5	3	
Gland plate, qty		2	2	2	2	2	2	
Cam lock		2	2	2	–	–	2	
3-point lock system		–	–	–	■	■	–	
Accessories								
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Plastic gland plate, modular	1 pc(s).	2565.200	2565.200	2565.200	2565.200	2565.200	2562.200	1050
Plastic gland plate with membranes	1 pc(s).	2565.300	2565.300	2565.300	2565.300	2565.300	2563.300	1052
Metal gland plate with knockouts	1 pc(s).	2575.100	2575.100	2575.100	2575.100	2575.100	2573.100	1053
Sealing frame, modular		see page	see page	see page	see page	see page	see page	1048
Rail for interior installation	4 pc(s).	2393.300	2393.300	2393.400	2393.300	2393.400	2393.210	989
Support strips, installation in the door	20 pc(s).	4697.000	4697.000	4697.000	–	–	4695.000	952
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	8619.720	8619.750	8619.750	8619.770	8619.770	8619.790	990
Punched section with mounting flange 14 x 39 mm, installation in the door[1)]	4 pc(s).	–	–	–	8619.730	8619.730	8619.710	952
LED system light	1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	1014
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	2537.100	–	–	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	2537.300	–	–	2537.300	940
Comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	–	–	–	2435.100	2435.100	–	939
Comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	–	–	–	2435.400	2435.400	–	939
Lock inserts		see page	see page	see page	see page	see page	see page	941, 942
Viewing window, depth 36 mm		–	–	–	–	–	–	
Viewing window, depth 62 mm		–	–	–	–	–	–	
Operating panel		–	–	–	–	–	–	
180° hinge	3 pc(s).	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable	1 pc(s).	2515.400	2515.400	2515.400	2515.400	2515.400	2515.200	954
Plastic wiring plan pockets		see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	see page	see page	see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	2820.081	2820.081	2820.081	2820.081	2820.081	–	888
Base/plinth trim panels, sides, 100 mm	2 pc(s).	2820.310	2820.310	2820.410	2820.310	2820.410	–	889
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	2820.082	2820.082	2820.082	2820.082	2820.082	–	888
Base/plinth trim panels, sides, 200 mm	2 pc(s).	2820.320	2820.320	2820.420	2820.320	2820.420	–	889
Eyebolts	2 pc(s).	–	2509.010	2509.010	2509.010	2509.010	–	964
Protective roof	1 pc(s).	2475.010	2475.010	–	2475.010	–	–	958
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	959
Earth straps		see page	see page	see page	see page	see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass		see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	1056

[1)] For two-door enclosures: Installation in the lockable door

Basic enclosure AX, sheet steel

Width (B) mm	Packs of	1000	1000	1000	1000	1000	1000	1200	Page
Height (H) mm		760	1000	1200	1200	1,400	1,400	1200	
Depth (T) mm		300	300	300	400	300	400	400	
Mounting plate width (F) mm		945	945	945	945	945	945	1145	
Mounting plate height (G) mm		735	975	1175	1175	1375	1375	1175	
Material thickness – enclosure mm		1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Material thickness – door mm		2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Material thickness – mounting plate mm		2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Model No.	1 pc(s).	**1130.000**	**1110.000**	**1213.000**	**1214.000**	**1114.000**	**1115.000**	**1116.000**	
Weight kg		52.0	63.0	81.0	85.7	88.5	100.0	101.0	
Protection category IP to IEC 60 529		IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	
Protection category NEMA		NEMA 12	NEMA 12	NEMA 12	NEMA 12	NEMA 12	NEMA 12	NEMA 12	
Product-specific scope of supply									
Door(s)		2	2	2	2	2	2	2	
Door hinged on the right, may be swapped to the left		■	■	■	■	■	■	■	
Gland plate, size		6	6	6	6	6	6	7	
Gland plate, qty		2	2	2	2	2	2	2	
Cam lock		2	2	–	–	–	–	–	
3-point lock system		–	–	■	■	■	■	■	
Accessories									
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 20 mm	4 pc(s).	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	2508.020	966
Wall mounting bracket, for AX sheet steel, KX sheet steel, wall distance 40 mm	4 pc(s).	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	2503.020	966
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	2505.510	967
Pole clamp		–	–	–	–	–	–	–	
Plastic gland plate, modular	1 pc(s).	2566.200	2566.200	2566.200	2566.200	2566.200	2566.200	2567.200	1050
Plastic gland plate with membranes	1 pc(s).	2566.300	2566.300	2566.300	2566.300	2566.300	2566.300	2567.300	1052
Metal gland plate with knockouts	1 pc(s).	2576.100	2576.100	2576.100	2576.100	2576.100	2576.100	2577.100	1053
Sealing frame, modular		see page	see page	see page	see page	see page	see page	see page	1048
Rail for interior installation	4 pc(s).	2393.300	2393.300	2393.300	2393.400	2393.300	2393.400	2393.400	989
Support strips, installation in the door	20 pc(s).	4695.000	4695.000	–	–	–	–	–	952
Punched section with mounting flange 14 x 39 mm, installation in the height	4 pc(s).	8619.790	8619.750	8619.770	8619.770	8619.780	8619.780	8619.770	990
Punched section with mounting flange 14 x 39 mm, installation in the door[1)]	4 pc(s).	8619.710	8619.710	8619.710	8619.710	8619.710	8619.710	8619.720	952
LED system light	1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	1014
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	2537.100	–	–	–	–	–	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	2537.300	–	–	–	–	–	940
Comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	–	–	2435.100	2435.100	2435.100	2435.100	2435.100	939
Comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	–	–	2435.400	2435.400	2435.400	2435.400	2435.400	939
Lock inserts		see page	see page	see page	see page	see page	see page	see page	941, 942
Viewing window, depth 36 mm		–	–	–	–	–	–	–	
Viewing window, depth 62 mm		–	–	–	–	–	–	–	
Operating panel		–	–	–	–	–	–	–	
180° hinge	3 pc(s).	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	2449.010	951
Door stay	1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable	1 pc(s).	2515.200	2515.200	2515.200	2515.200	2515.200	2515.200	2515.300	954
Plastic wiring plan pockets		see page	see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch		see page	see page	see page	see page	see page	see page	see page	955
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	2820.101	2820.101	2820.101	2820.101	2820.101	2820.101	2820.121	888
Base/plinth trim panels, sides, 100 mm	2 pc(s).	2820.310	2820.310	2820.310	2820.410	2820.310	2820.410	2820.410	889
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	2820.102	2820.102	2820.102	2820.102	2820.102	2820.102	2820.122	888
Base/plinth trim panels, sides, 200 mm	2 pc(s).	2820.320	2820.320	2820.320	2820.420	2820.320	2820.420	2820.420	889
Eyebolts	2 pc(s).	–	2509.010	2509.010	2509.010	2509.010	2509.010	2509.010	964
Protective roof	1 pc(s).	2363.010	2363.010	2363.010	–	2363.010	–	–	958
Dust guard trim	1 pc(s).	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	2426.500	959
Earth straps		see page	see page	see page	see page	see page	see page	see page	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass		see page	see page	see page	see page	see page	see page	see page	1056
Cable gland, polyamide		see page	see page	see page	see page	see page	see page	see page	1056

[1)] For two-door enclosures: Installation in the lockable door

Plastic enclosures AX – Added durability

Enclosures

- 14 different enclosure variants, with or without viewing panel
- Symmetrical layout means the enclosure is easily rotated through 180°
- Double seal with an integral rain protection strip on the top and bottom edge of the door to protect the seal from dust and rainwater
- Fibreglass-reinforced plastic with a high level of UV resistance

Siting

- Wall mounting brackets are easily secured from the outside while retaining the UL approval
- The pole clamp may be screw-fastened directly into the external threaded inserts
- Ideally suited for outdoor applications

Mounting plate

- The mounting plate is easily screw-fastened onto the pre-assembled bolts from the front
- Simple earthing of the mounting plate, even retrospectively, using machined keyholes
- If no mounting plate is used, top hat rails may be mounted directly onto the available mounting bosses

Interior installation

- Numerous mounting bosses for individual interior installation
- Interior installation on a 25 mm pitch pattern with universal bracket for mounting punched sections and rails
- Direct door installation with support strips and punched sections with mounting flanges 14 x 39 mm, for use as an additional mounting surface
- Door-operated switches may be attached directly to the mounting bosses

Plastic enclosures AX

System accessories Page 877 **Ex enclosures** Page 257

Material:
- Enclosure and door: Fibre-glass-reinforced unsaturated polyester
- Fire protection corresponding to UL 94 V-0
- Door: All-round foamed-in PU seal
- Mounting plate: Sheet steel

Surface finish:
- Enclosure and door: Dyed plastic with no after-treatment
- Mounting plate: Zinc-plated

Colour:
- Similar to RAL 7035

Protection class:
- II at 1000 V AC

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

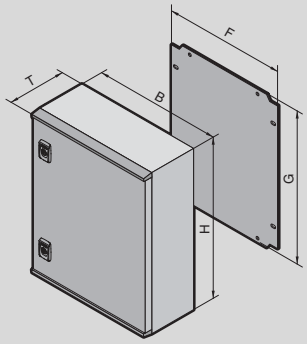
Supply includes:
- Enclosure with hinged door, of all-round solid construction, 3 mm double-bit lock
- Door hinged on the right, may be swapped to the left
- Mounting plate
- Twin seal on the top and bottom edges of the door as integral rain protection strip

Please note the product-specific scope of supply.

Note:
- Interior installation screws are required to secure components inside the enclosure
- Components such as punched sections with mounting flanges may be attached on a 25 mm pitch pattern using the universal bracket

Approvals:
- UL
- cUL

Further approvals can be found on the Internet.



without viewing window

Width (B) mm	Packs of	250	300	400	400	500	600	600	800	Page
Height (H) mm		350	400	400	600	500	600	800	1000	
Depth (T) mm		150	200	200	200	300	200	300	300	
Mounting plate width (F) mm		155	205	305	305	405	505	505	705	
Mounting plate height (G) mm		275	325	325	525	425	525	725	925	
Mounting plate thickness mm		2.5	2.5	2.5	3.0	3.0	3.0	3.0	3.0	
Model No.	1 pc(s).	**1432.000**	**1434.000**	**1444.000**	**1446.000**	**1453.000**	**1466.000**	**1468.000**	**1480.000**	
Weight kg		4.4	6.3	7.8	11.1	13.1	15.5	22.4	34.2	
Product-specific scope of supply										
Cam lock		1	2	2	2	2	2	2	3	
Accessories										
Wall mounting bracket	4 pc(s).	1485.400	1485.400	1485.400	1485.400	1485.400	1485.400	1485.400	1485.400	97
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	–	968
Universal bracket	4 pc(s).	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	97
Door stay	2 pc(s).	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	96
LED system light		–	–	2500.100	2500.100	2500.100	2500.100	2500.110	2500.110	1014
Mini-comfort handle AX	1 pc(s).	1485.600	1485.600	1485.600	1485.600	1485.600	1485.600	1485.600	1485.600	96
Cable gland		see page	see page	see page	see page	see page	see page	see page	see page	1056
Screw for interior installation	50 pc(s).	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	97
Wiring plan pocket	1 pc(s).	–	–	–	–	–	4116.500	4116.500	4116.500	955
Punched section with mounting flange 23 x 64 mm, installation in the height	4 pc(s).	–	8617.110	8617.110	8617.130	8617.120	8617.130	8617.140	8617.150	991
Punched section with mounting flange 23 x 64 mm, installation in the width		–	–	8617.110	8617.110	8617.120	8617.130	8617.130	8617.140	
Support strips, installation in the door	20 pc(s).	–	–	4594.000	4594.000	4309.000	4596.000	4596.000	4598.000	952
Punched section with mounting flange 14 x 39 mm, installation in the door	4 pc(s).	–	–	8619.700	8619.700	8619.710	8619.720	8619.720	8619.730	952

System accessories Page 877 **Ex enclosures** Page 257

Material:
- Enclosure and door: Fibre-glass-reinforced unsaturated polyester
- Fire protection corresponding to UL 94 V-0
- Door: All-round foamed-in PU seal
- Mounting plate: Sheet steel
- Viewing window: Polycarbonate

Surface finish:
- Enclosure and door: Dyed plastic with no after-treatment
- Mounting plate: Zinc-plated

Colour:
- Similar to RAL 7035

Protection class:
- II at 1000 V AC

Protection category IP to IEC 60 529:
- IP 56

Protection category NEMA:
- NEMA 12

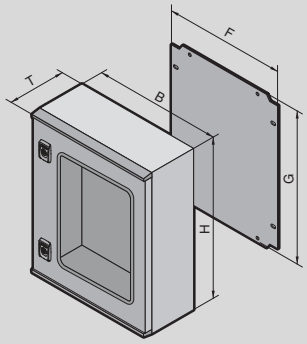
Supply includes:
- Enclosure with hinged door with viewing window, of all-round solid construction, 3 mm double-bit lock
- Door hinged on the right, may be swapped to the left
- Mounting plate
- Twin seal on the top and bottom edges of the door as integral rain protection strip

Please note the product-specific scope of supply.

Note:
- Interior installation screws are required to secure components inside the enclosure
- Components such as punched sections with mounting flanges may be attached on a 25 mm pitch pattern using the universal bracket

Approvals:
- UL
- cUL

Further approvals can be found on the Internet.



with viewing window

Width (B) mm	Packs of	400	400	500	600	600	800	Page
Height (H) mm		400	600	500	600	800	1000	
Depth (T) mm		200	200	300	200	300	300	
Mounting plate width (F) mm		305	305	405	505	505	705	
Mounting plate height (G) mm		325	525	425	525	725	925	
Mounting plate thickness mm		2.5	3.0	3.0	3.0	3.0	3.0	
Model No.	1 pc(s).	**1448.000**	**1449.000**	**1454.000**	**1467.000**	**1469.000**	**1479.000**	
Weight kg		7.7	10.9	12.9	15.2	21.9	33.2	
Product-specific scope of supply								
Cam lock		2	2	2	2	2	3	
Accessories								
Wall mounting bracket	4 pc(s).	1485.400	1485.400	1485.400	1485.400	1485.400	1485.400	97
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	–	968
Universal bracket	4 pc(s).	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	97
Door stay	2 pc(s).	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	96
LED system light		2500.100	2500.100	2500.100	2500.100	2500.110	2500.110	1014
Mini-comfort handle AX	1 pc(s).	1485.600	1485.600	1485.600	1485.600	1485.600	1485.600	96
Cable gland		see page	see page	see page	see page	see page	see page	1056
Screw for interior installation	50 pc(s).	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	97
Wiring plan pocket	1 pc(s).	–	–	–	4116.500	4116.500	4116.500	955
Punched section with mounting flange 23 x 64 mm, installation in the height	4 pc(s).	8617.110	8617.130	8617.120	8617.130	8617.140	8617.150	991
Punched section with mounting flange 23 x 64 mm, installation in the width		8617.110	8617.110	8617.120	8617.130	8617.130	8617.140	
Support strips, installation in the door	20 pc(s).	4594.000	4594.000	4309.000	4596.000	4596.000	4598.000	952
Punched section with mounting flange 14 x 39 mm, installation in the door	4 pc(s).	8619.700	8619.700	8619.710	8619.720	8619.720	8619.730	952

Accessories

Mini-comfort handle AX

for AX plastic

The unlatched handle swivels to open the lock. Prepared for the installation of lock inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders, as well as lock and push-button inserts.

Packs of	**Model No.**
1 pc(s).	**1485.600**
Lock inserts, type A	
7 mm square	2460.000
8 mm square	2461.000
7 mm triangular	2462.000
8 mm triangular	2463.000
Screwdriver	2464.000
Daimler insert	2465.000
3 mm double-bit	2466.000
Fiat	2307.000
6.5 mm triangular	2460.650
Lock and push-button inserts	
Lock insert, lock no. 3524 E[1)]	2467.000
Push-button insert	2468.000
Push-button and lock insert[1)]	2469.000[2)]
Profile half-cylinders	
To DIN 18 252[3)]	9785.040[5)]
	9785.042[4)]

[1)] With 2 keys
[2)] Lock no. 2123; no other lock is possible
[3)] With 3 keys for each lock insert
[4)] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[5)] Lock-specific key

Door stay AX

for AX plastic and Ex enclosure, plastic

To secure the door in the open position. May be fitted without machining the enclosure.

Supply includes:
– Assembly parts

Installation options:
– Installation directly at the top/bottom right
– When swapping the door hinge to the opposite side, the prefitted door stay is easily removed and re-installed

Assembly	Packs of	**Model No.**
Top/bottom	2 pc(s).	**1485.100**

Wall mounting bracket

for AX plastic
For attachment to the wall, only possible from the outside of the enclosure.

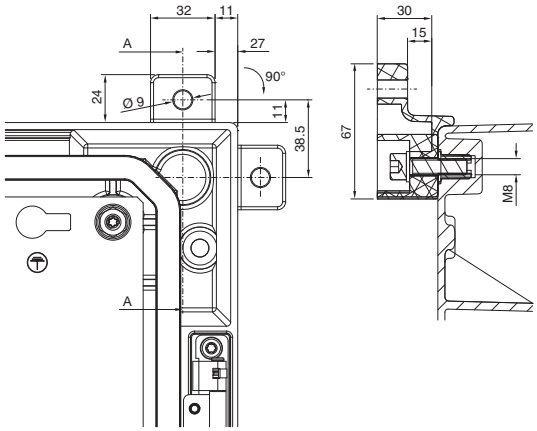
Material:
– Fibreglass-reinforced polyamide[1)]

Supply includes:
– Assembly parts for mounting on the enclosure

Colour	Packs of	Model No.
RAL 7035	4 pc(s).	**1485.400**
RAL 9011	4 pc(s).	**1485.500[1)]**

[1)] With graphite additive for Ex applications

Section A – A



Universal bracket

for AX plastic and Ex enclosure, plastic
For the interior installation on a
25 mm pitch pattern of
– Punched sections with mounting flanges
– Door rails
– Support strips

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**1485.200**

Screw for interior installation

for AX plastic
For mounting accessories on the mounting bosses of the enclosure frame.

Drive: Multi-tooth 25

Dimensions: 5 x 14 mm

Type of screw	Packs of	Model No.
Pan head screw, self-tapping	50 pc(s).	**1485.300**

Rittal – The System.

Faster – better – everywhere.

Rack systems

Baying enclosure system VX25

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Basic enclosure, height 1400 mm, depth 500 mm 118
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Free-standing enclosure system VX SE

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Two powerful models – one accessory range – one system

Free-standing enclosure system VX SE

For standalone enclosure applications up to 1800 mm wide

Baying enclosure system VX25

For individual bayed combinations – accessible from all sides

Baying enclosure system VX25 – Product comparison

		Basic enclosure		Basic enclosure with glazed door	Electronic enclosure	IP 66/NEMA 4	
Material	Sheet steel	■	–	■	■	■	
	Stainless steel	–	■	–	–	–	
Cladding	Door, front	■	■	–	–	■	
	Glazed door, front	–	–	■	–	–	
	Front frame	–	–	–	■	–	
	Front trim panels	–	–	–	–	–	
	Door, rear	–	–	■	■	–	
	Rear panel	■	■	–	–	■	
	Roof plate	■	■	■	■	■	
Interior installation	Mounting plate	■	■	–	■	■	
	Punched rails	■	■	–	–	■	
	Gland plate, solid	–	–	–	–	■	
	Gland plate, multi-piece	■	■	■	■	–	
	Locating frame for fuse-switch disconnectors	–	–	–	–	–	
	Adaptor section, 482.6 mm (19″), front	–	–	–	■	–	
Protection category	IP to IEC 60 529	IP 55	IP 55	IP 55	–	IP 66	
	NEMA	12	12	12	–	4	
from page		116	242	128	130	131	

Baying enclosure system VX25 – Product comparison

	IP 66/NEMA 4X	Distribution enclosure	Modular enclosure	Fuse-switch-disconnector enclosure	EMC enclosure
	–	■	■	■	■[1)]
	■	–	–	–	–
	■	■	–	■	■
	–	–	–	–	–
	–	–	–	–	–
	–	–	–	■	–
	–	–	–	–	–
	■	■	■	■	■
	■	■	–	■	■
	■	–	–	–	■
	■	–	–	–	■
	■	–	–	–	–
	–	■	■	■	■
	–	–	–	■	–
	–	–	–	–	–
	IP 66	IP 55	Up to IP 54[2)]	Up to IP 3X[2)]	IP 55
	4X	12	–	–	12
	246	135	132	134	136

[1)] Sheet steel with magnesium zinc coating [2)] Depending on the cladding

Baying enclosure system VX25 – Product overview

			Basic enclosure		Basic enclosure with glazed door[1]	Electronic enclosure[2]	IP 66/NEMA 4
Height x depth mm	**Width mm**	**Doors**	**Model No.**	**Model No.**	**Model No.**	**Model No.**	**Model No.**
Material			Sheet steel	Stainless steel	Sheet steel	Sheet steel	Sheet steel
1200 x 500	600	1	**8615.000**	–	–	–	–
	800	1	**8815.000**	–	–	–	–
	1200	2	**8215.000**	–	–	–	–
1400 x 500	600	1	**8645.000**	–	–	–	–
	800	1	**8845.000**	–	–	–	–
	1200	2	**8245.000**	–	–	–	–
1600 x 500	600	1	**8665.000**	–	–	–	–
	800	1	**8865.000**	–	–	–	–
	1200	2	**8265.000**	–	–	–	–
1600 x 600	600	1	–	–	–	**8410.000**	–
1600 x 800	600	1	–	–	–	**8418.000**	–
1800 x 400	600	1	**8684.000**	–	–	–	–
	800	1	**8884.000**	**8454.000**	–	–	–
	1000	1	**8084.000**	–	–	–	–
	1000	2	**8080.000**	–	–	–	–
	1200	2	**8284.000**	**8456.000**	–	–	–
1800 x 500	400	1	**8485.000**	–	–	–	–
	600	1	**8685.000**	**8457.000**	–	–	–
	800	1	**8885.000**	**8455.000**	–	–	–
	800	2	**8880.000**	–	–	–	–
	1200	2	**8285.000**	**8453.000**	–	–	–
1800 x 600	400	1	**8486.000**	–	–	–	–
	600	1	**8686.000**	–	–	–	–
	800	1	**8886.000**	–	–	–	–
	800	2	**8881.000**	–	–	–	–
	1200	2	**8286.000**	–	–	–	–
2000 x 400	400	1	–	–	–	–	–
	600	1	**8604.000**	–	–	–	–
	800	1	**8804.000**	–	–	–	–
	850	1	–	–	–	–	–
	1000	2	**8004.000**	–	–	–	–
	1100	2	–	–	–	–	–
	1200	2	**8204.000**	–	–	–	–
2000 x 500	400	1	**8405.000**	–	–	–	–
	600	1	**8605.000**	–	–	–	–
	800	1	**8805.000**	–	–	–	–
	1000	2	**8005.000**	–	–	–	–
	1200	2	**8205.000**	–	–	–	–
2000 x 600	400	1	**8406.000**	–	–	–	–
	600	1	**8606.000**	**8452.000**	**8840.120**	**8430.000**	–
	800	1	**8806.000**	**8450.000**	**8840.100**	–	**8807.000**
	850	1	–	–	–	–	–
	1000	2	**8006.000**	–	–	–	–
	1100	2	–	–	–	–	–
	1200	2	**8206.000**	**8451.000**	–	–	–
2000 x 800	400	1	–	–	–	–	–
	600	1	**8608.000**	–	**8840.130**	**8438.000**	–
	800	1	**8808.000**	–	**8840.110**	–	–
	1200	2	**8208.000**	–	–	–	–
2200 x 600	400	1	–	–	–	–	–
	600	1	**8626.000**	–	–	–	–
	800	1	**8826.000**	–	–	–	–
	1000	1	–	–	–	–	–
	1200	2	**8226.000**	–	–	–	–
2200 x 800	400	1	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	1200	1	–	–	–	–	–
from page			116	242	128	130	131

[1] Glazed door at the front, rear door [2] Rear door

Baying enclosure system VX25 – Product overview

			IP 66/NEMA 4X	Distribution enclosure	Modular enclosure[3]	Fuse-switch-disconnector enclosure	EMC enclosure
	Width mm	Doors	Model No.	Model No.	Model No.	Model No.	Model No.
			Stainless steel	Sheet steel	Sheet steel	Sheet steel	Sheet steel[4]
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	1200	2	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	1200	2	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	1200	2	–	–	–	–	–
	600	1	–	–	–	–	–
	600	1	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	1000	1	–	–	–	–	–
	1000	2	–	–	–	–	–
	1200	2	–	–	–	–	–
	400	1	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	800	2	–	–	–	–	–
	1200	2	–	–	–	–	–
	400	1	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	800	2	–	–	–	–	–
	1200	2	–	–	–	–	–
	400	1	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	850	1	–	**9666.956**	–	–	–
	1000	2	–	–	–	–	–
	1100	2	–	**9666.966**	–	–	–
	1200	2	–	–	–	–	–
	400	1	–	–	–	–	–
	600	1	–	–	–	–	–
	800	1	–	–	–	–	–
	1000	2	–	–	–	–	–
	1200	2	–	–	–	–	–
	400	1	–	–	**9680.406**	–	–
	600	1	–	–	**9680.606**	–	–
	800	1	**8458.000**	–	**9680.806**	–	**8807.010**
	850	1	–	**9666.916**	–	–	–
	1000	1	–	–	–	**9680.005**	–
	1100	2	–	**9666.926**	–	–	–
	1200	2	–	–	–	–	–
	400	1	–	–	**9680.408**	–	–
	600	1	–	–	**9680.608**	–	–
	800	1	–	–	**9680.808**	–	**8807.020**
	1200	1	–	–	–	**9680.207**	–
	400	1	–	–	**9680.426**	–	–
	600	1	–	–	**9680.626**	–	–
	800	1	–	–	**9680.826**	–	–
	1000	1	–	–	–	**9680.025**	–
	1200	2	–	–	–	–	–
	400	1	–	–	**9680.428**	–	–
	600	1	–	–	**9680.628**	–	–
	800	1	–	–	**9680.828**	–	–
	1200	1	–	–	–	**9680.227**	–
			246	135	132	134	136

[3] Without door [4] Sheet steel with magnesium zinc coating

Baying enclosure system VX25 – Added system benefits

System benefits – Rittal's standards (not to be taken for granted) create additional cross-system benefits

Digitalization

- The QR code on all machinable enclosure panels permits fully automated incorporation into the production workflow, for seamless digital monitoring from the incoming goods right through to the finished product.

Material savings

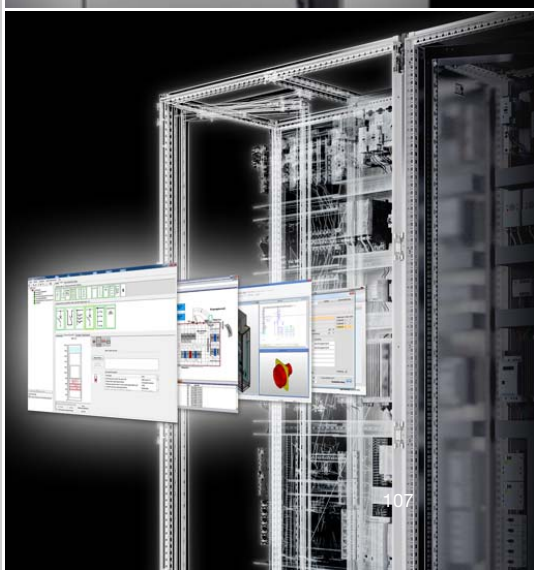
- As standard, potential equalisation of the enclosure panels occurs during screw-fastening, which saves up to seven earth straps per enclosure and also improves work safety by eliminating sharp-edged protruding parts.

System

- Automatic potential equalisation of the roof, rear panel and sides acts as earthing when Rittal climate control devices and Rittal fan-and-filter units are installed.

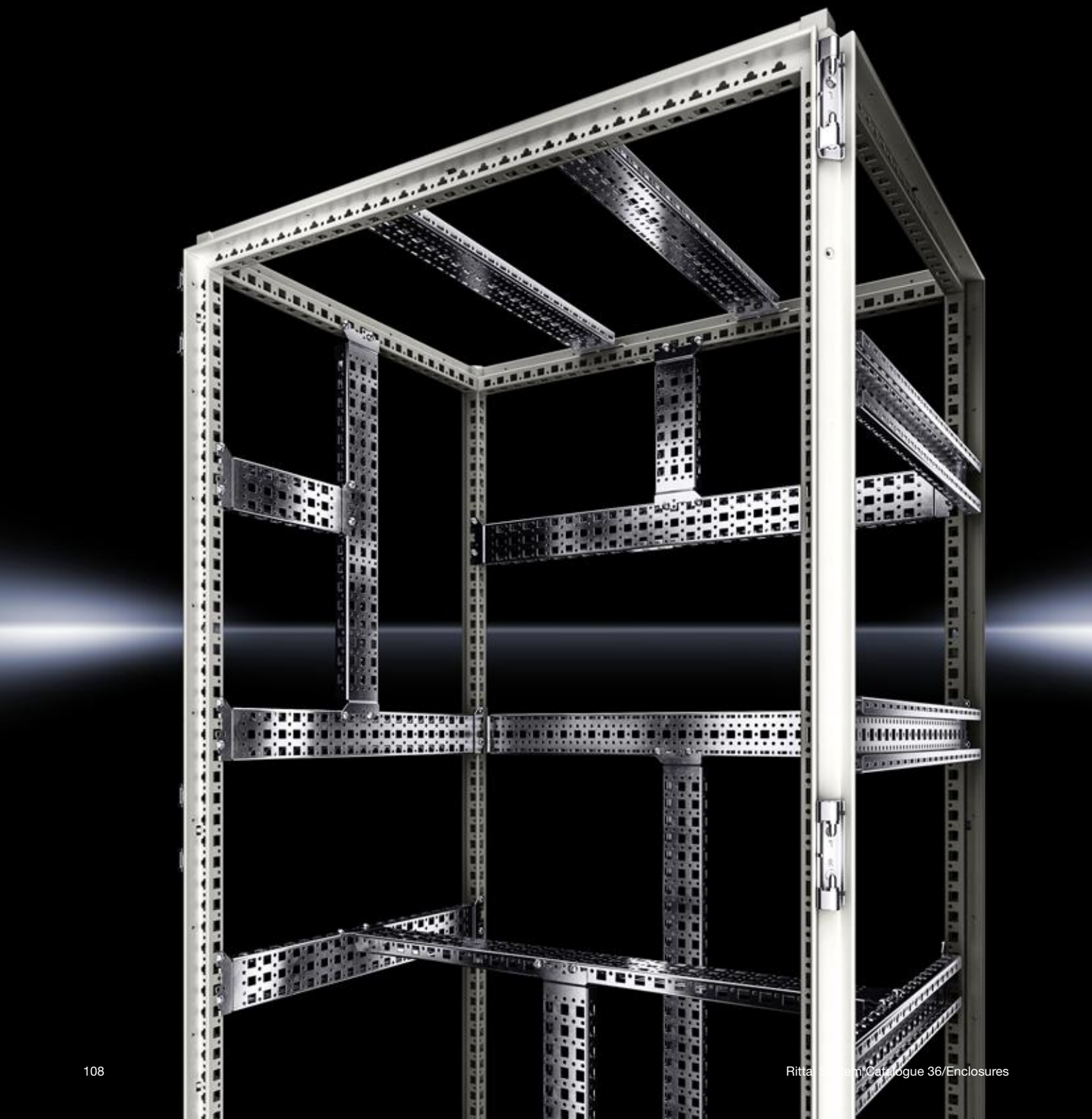
Reliable engineering

- Rittal's customers are supported by a wealth of conversion and planning tools in the automated production process and when working with a virtual prototype:
  - Configurators
  - Parts list converters
  - EPLAN Pro Panel
  - 2D/3D CAD data
  - ecl@ss Advanced
  - Technical documentation
  - Data for planners
  - Assembly videos



Baying enclosure system VX25 – Added system benefits

Frame and punched sections – Now with added assembly-friendliness plus efficient engineering thanks to a symmetrical frame section on a 25 mm pitch pattern across all levels, accessible from all sides.



Accessibility

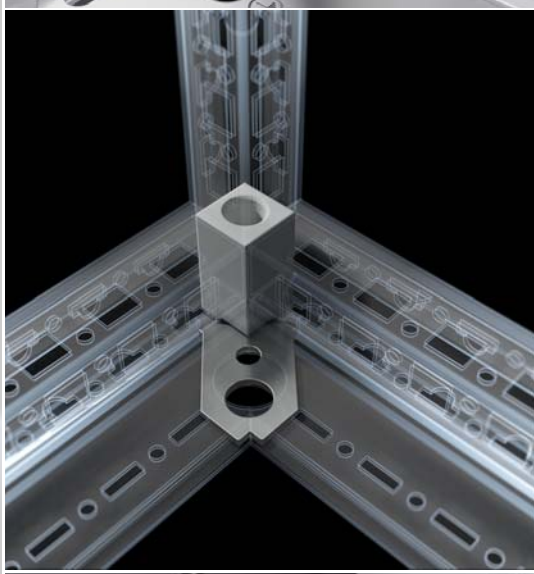
- The system offers an outer mounting level in addition to the inner level, making the enclosure readily accessible and configurable from the outside.

Installation options

- The continuous pattern of square punchings supports the use of M5/M6//M8 cage nuts to create more mounting options at all profile levels.

Stability

- The corner piece with welded base frame makes it easier to secure to the floor and base and improves stability.
- The enclosure is secured to the base/ plinth or subsurface either via the M12 thread in the corner piece or via the stable base structure.



Simple cable entry

- The blunt edges minimise the risk of cable damage when routing cables underneath the enclosure.
- The earthing points pre-labelled as standard provide quick guidance and help to speed up the work process.
- The double edge fold of the gland plates is resistant to bending even under heavy loads to ensure compliance with the high protection category.

Baying enclosure system VX25 – Added time savings

Doors and walls – More flexible, assembly-friendly and economical, thanks to an ingenious hinge system, a quick-fit and readily replaceable lock system, and the elimination of avoidable machining processes.

Making life easier

- The new hinge allows doors to be fitted and removed incredibly easily without any tools, and separately locking and unlocking the hinge bolts is a thing of the past.

Handling

- For one-man assembly, the positioning aid for the side and rear panels allows labour-saving pre-fixing for the ideal fit, which you can screw-fasten later on when you have both hands free.

Flexibility

- Because the hinges of the main and adjacent doors in two-door enclosures can be swapped to the opposite side if required, this creates greater flexibility when installing cooling units in the enclosure doors and helps to avoid collisions between equipment and doors.

Time savings

- The tool-free, readily exchangeable lock systems, e.g. on the comfort handle, reduce the amount of assembly time required.

Baying enclosure system VX25 – Added reductions in complexity

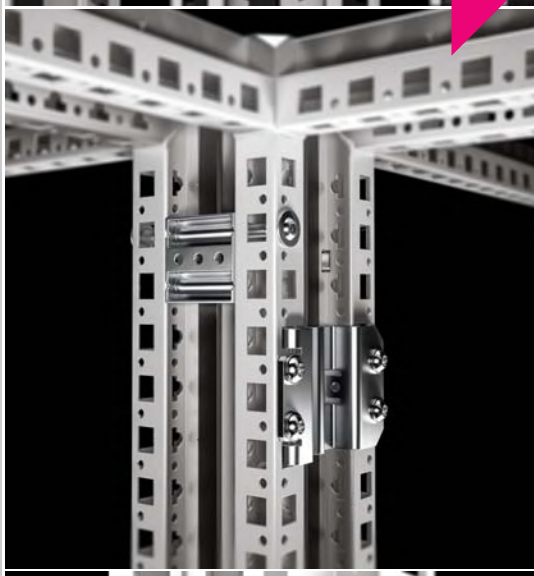
Baying – Complexity is further reduced thanks to a simplified, more consistent baying system for all applications.

Overview

- The baying connectors have been designed to cover every potential baying scenario in enclosure production with just a few baying solutions. This allows easier decision-making and relieves the pressure on engineering.

Location flexibility

- The option of baying from all four sides allows an individual response to every space situation.



Clamping force

- The baying connectors are screwed into place in the direction of baying to bring the enclosures safely into position and are approved for transportation.

Sealing efficiency

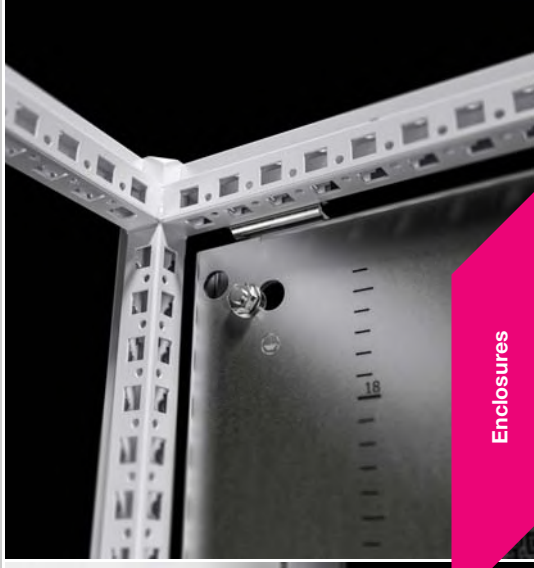
- The seal, which can be inserted in a flash, allows precise positioning and can be removed at any time.

Baying enclosure system VX25 – Added assembly-friendliness

Mounting plate – More time gains, installation options and assembly-friendliness thanks to improved mounting kits, also suitable for dynamic loads.

Space gain

- The option of fitting the mounting plate 20 mm deeper in the enclosure with a special installation kit creates additional space in the enclosure depth.



Process efficiency

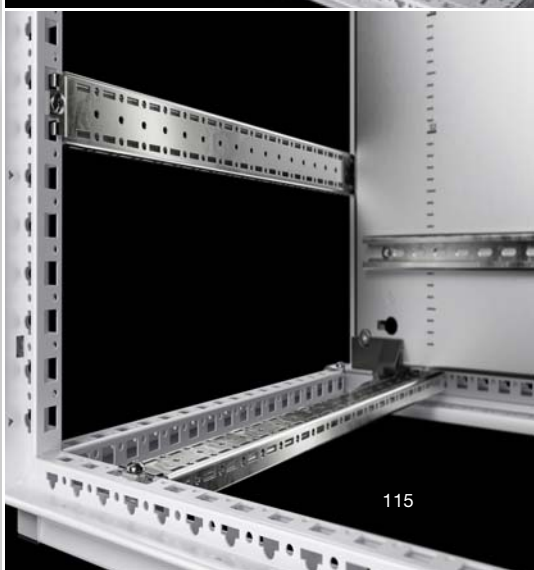
- The integral clip means that the mounting plate slide block can be dismantled with no need for tools and easily refitted. This helps to streamline the fully automated machining process in every respect.

Flexibility

- The system divider designed for installation in the enclosure depth divides wide enclosures into two halves, increasing the flexibility of interior installation.

Additional benefits

- The practical mounting plate slide rail can be removed once the mounting plate has been inserted and used elsewhere in the enclosure as a fully functional punched section.
- The grid print facilitates the simple, fast positioning of components on the mounting plate.



Baying enclosure system VX25

System accessories Page 877 **VX25 basic enclosure with glazed door** Page 128 **VX25 stainless steel** Page 242 **VX25 EMC-shielded** Page 136

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dip-coat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dip-coat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated, passivated
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated

Colour:
- RAL 7035

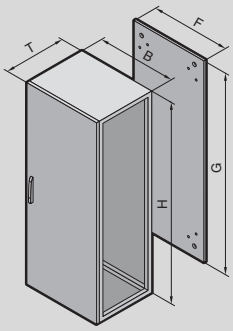
Protection category IP to IEC 60 529:
- IP 55

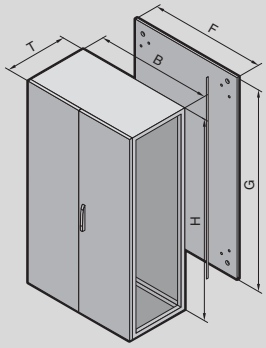
Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure frame
- Door(s) (r/h hinge, may be swapped to opposite side)
- Roof plate
- Rear panel
- Gland plates
- Mounting plate
- 2 punched rails 18 x 39 mm
- Lock: 3 mm double-bit

Approvals:
- UL
- cUL
- DNV-GL
- Lloyds Register of Shipping

Further approvals can be found on the Internet.





Basic enclosure, height 1200 mm, depth 500 mm

Width (B) mm		Packs of	600	800	1200	Page
Height (H) mm			1200	1200	1200	
Depth (T) mm			500	500	500	
Mounting plate width (F) mm			499	699	1099	
Mounting plate height (G) mm			1096	1096	1096	
Model No.		1 pc(s).	**8615.000**	**8815.000**	**8215.000**	
Weight kg			66.0	82.4	126.0	
Product-specific scope of supply						
Door(s)			1	1	2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.032	8640.032	8640.032	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.042	8640.042	8640.042	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8115.245	8115.245	8115.245	901
Divider panel			–	–	–	
Divider panel for module plates			–	–	–	
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	–	–	–	
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill			–	–	–	
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.020	8617.020	8617.020	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.120	8617.120	8617.120	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.710	8617.710	8617.710	993
Support strip for the enclosure depth		20 pc(s).	4695.000	4695.000	4695.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.810	8617.830	996
LED system light			see page	see page	see page	1014
Earth straps			see page	see page	see page	1033
Cable entry plates			8619.800	8619.801	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.801	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.811	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.420	8619.440	1059

Baying enclosure system VX25

Basic enclosure, height 1400 mm, depth 500 mm

Width (B) mm		Packs of	600	800	1200	Page
Height (H) mm			1400	1400	1400	
Depth (T) mm			500	500	500	
Mounting plate width (F) mm			499	699	1099	
Mounting plate height (G) mm			1296	1296	1296	
Model No.		1 pc(s).	**8645.000**	**8845.000**	**8245.000**	
Weight kg			73.8	92.2	141.0	
Product-specific scope of supply						
Door(s)			1	1	2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.032	8640.032	8640.032	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.042	8640.042	8640.042	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8145.245	8145.245	8145.245	901
Divider panel			–	–	–	
Divider panel for module plates			–	–	–	
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	912
Glazed door			–	–	–	
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill			–	–	–	
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.020	8617.020	8617.020	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.120	8617.120	8617.120	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.710	8617.710	8617.710	993
Support strip for the enclosure depth		20 pc(s).	4695.000	4695.000	4695.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.810	8617.830	996
LED system light			see page	see page	see page	1014
Earth straps			see page	see page	see page	1033
Cable entry plates			8619.800	8619.801	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.801	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.811	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.420	8619.440	1059

Basic enclosure, height 1600 mm, depth 500 mm

Width (B) mm		Packs of	600	800	1200	Page
Height (H) mm			1600	1600	1600	
Depth (T) mm			500	500	500	
Mounting plate width (F) mm			499	699	1099	
Mounting plate height (G) mm			1496	1496	1496	
Model No.		1 pc(s).	**8665.000**	**8865.000**	**8265.000**	
Weight kg			81.9	102.0	156.0	
Product-specific scope of supply						
Door(s)			1	1	2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.032	8640.032	8640.032	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.042	8640.042	8640.042	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8165.245	8165.245	8165.245	901
Divider panel			–	–	–	
Divider panel for module plates			–	–	–	
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	912
Glazed door			–	–	–	
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill			–	–	–	
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.020	8617.020	8617.020	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.120	8617.120	8617.120	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.710	8617.710	8617.710	993
Support strip for the enclosure depth		20 pc(s).	4695.000	4695.000	4695.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.810	8617.830	996
LED system light			see page	see page	see page	1014
Earth straps			see page	see page	see page	1033
Cable entry plates			8619.800	8619.801	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.801	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.811	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.420	8619.440	1059

Baying enclosure system VX25

Basic enclosure, height 1800 mm, depth 400 mm

Width (B) mm	Packs of	600	800	1000	1000	1200	Page
Height (H) mm		1800	1800	1800	1800	1800	
Depth (T) mm		400	400	400	400	400	
Mounting plate width (F) mm		499	699	899	899	1099	
Mounting plate height (G) mm		1696	1696	1696	1696	1696	
Model No.	1 pc(s).	**8684.000**	**8884.000**	**8080.000**	**8084.000**	**8284.000**	
Weight kg		86.9	109.0	138.0	133.0	166.0	
Product-specific scope of supply							
Door(s)		1	1	2	1	2	
Accessories							
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.002	8640.003	8640.005	8640.005	8640.007	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.031	8640.031	8640.031	8640.031	8640.031	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.022	8640.023	8640.024	8640.024	8640.025	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.041	8640.041	8640.041	8640.041	8640.041	882
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel	2 pc(s).	8184.245	8184.245	8184.245	8184.245	8184.245	901
Divider panel	1 pc(s).	8609.200	8609.200	8609.200	8609.200	8609.200	905
Divider panel for module plates		–	–	–	–	–	
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	912
Glazed door	1 pc(s).	8618.000	8618.010	–	–	–	917
Comfort handle VX for lock inserts	1 pc(s).	8618.200	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock	1 pc(s).	8618.230	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.250	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1	1 pc(s).	8618.240	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system	1 pc(s).	8618.270	8618.270	8618.270	8618.270	8618.270	937
Lock inserts		see page	see page	see page	see page	see page	941, 942
180° hinges	4 pc(s).	8618.330	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame	4 pc(s).	8619.720	8619.730	8619.710	8619.750	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm	1 pc(s).	4116.500	4118.500	4115.500	–	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm	1 pc(s).	4116.000	4118.000	4115.000	4124.000	4116.000	955
Door stay	1 pc(s).	8618.430	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes	1 pc(s).	8618.425	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller	10 pc(s).	8618.420	8618.420	8618.420	8618.420	8618.420	956
Mounting plate infill	1 pc(s).	4590.700	4590.700	4590.700	4590.700	4590.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width	4 pc(s).	8617.030	8617.040	8617.050	8617.050	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth	4 pc(s).	8617.010	8617.010	8617.010	8617.010	8617.010	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width	4 pc(s).	8617.130	8617.140	8617.150	8617.150	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth	4 pc(s).	8617.110	8617.110	8617.110	8617.110	8617.110	991
Punched rail 18 x 39 mm for the enclosure depth	4 pc(s).	8617.700	8617.700	8617.700	8617.700	8617.700	993
Support strip for the enclosure depth	20 pc(s).	4694.000	4694.000	4694.000	4694.000	4694.000	994
C rail 30/15, for the enclosure width	6 pc(s).	4944.000	4945.000	4946.000	4946.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width	2 pc(s).	8617.800	8617.810	8617.820	8617.820	8617.830	996
LED system light		see page	see page	see page	see page	see page	1014
Earth straps		see page	see page	see page	see page	see page	1033
Cable entry plates		8619.800	8619.801	8619.802	8619.802	8619.803	1044
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
Cable entry grommets — 8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	1044
Cable entry grommets — 3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	1044
Cable entry grommets — 1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets	10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre		8618.800	8618.801	8618.802	8618.802	8618.803	1045
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
Section for cable entry, rear		8618.810	8618.811	8618.812	8618.812	8618.813	1045
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
Cable duct		see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.420	8619.430	8619.430	8619.440	1059

Basic enclosure, height 1800 mm, depth 500 mm

Width (B) mm		Packs of	400	600	800	800	1200	Page
Height (H) mm			1800	1800	1800	1800	1800	
Depth (T) mm			500	500	500	500	500	
Mounting plate width (F) mm			299	499	699	699	1099	
Mounting plate height (G) mm			1696	1696	1696	1696	1696	
Model No.		1 pc(s).	**8485.000**	**8685.000**	**8880.000**	**8885.000**	**8285.000**	
Weight kg			66.4	90.0	119.0	113.0	173.0	
Product-specific scope of supply								
Door(s)			1	1	2	1	2	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.001	8640.002	8640.003	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.032	8640.032	8640.032	8640.032	8640.032	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.021	8640.022	8640.023	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.042	8640.042	8640.042	8640.042	8640.042	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8185.245	8185.245	8185.245	8185.245	8185.245	901
Divider panel		1 pc(s).	8609.201	8609.201	8609.201	8609.201	8609.201	905
Divider panel for module plates		1 pc(s).	8609.210	8609.210	8609.210	8609.210	8609.210	906
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	–	8618.000	–	8618.010	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.700	8619.720	8619.700	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	–	4116.500	–	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4114.000	4116.000	4114.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4590.700	4590.700	4590.700	4590.700	4590.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.010	8617.030	8617.040	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.020	8617.020	8617.020	8617.020	8617.020	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.110	8617.130	8617.140	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.120	8617.120	8617.120	8617.120	8617.120	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.710	8617.710	8617.710	8617.710	8617.710	993
Support strip for the enclosure depth		20 pc(s).	4695.000	4695.000	4695.000	4695.000	4695.000	994
C rail 30/15, for the enclosure width		6 pc(s).	–	4944.000	4945.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	–	8617.800	8617.810	8617.810	8617.830	996
LED system light			see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	1033
Cable entry plates			–	8619.800	8619.801	8619.801	8619.803	1044
		Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			–	8618.800	8618.801	8618.801	8618.803	1045
		Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			–	8618.810	8618.811	8618.811	8618.813	1045
		Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.400	8619.410	8619.420	8619.420	8619.440	1059

Baying enclosure system VX25

Basic enclosure, height 1800 mm, depth 600 mm

Width (B) mm		Packs of	400	600	800	800	1200	Page
Height (H) mm			1800	1800	1800	1800	1800	
Depth (T) mm			600	600	600	600	600	
Mounting plate width (F) mm			299	499	699	699	1099	
Mounting plate height (G) mm			1696	1696	1696	1696	1696	
Model No.		1 pc(s).	**8486.000**	**8686.000**	**8881.000**	**8886.000**	**8286.000**	
Weight kg			69.6	92.3	121.0	116.0	174.0	
Product-specific scope of supply								
Door(s)			1	1	2	1	2	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.001	8640.002	8640.003	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.033	8640.033	8640.033	8640.033	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.021	8640.022	8640.023	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.043	8640.043	8640.043	8640.043	8640.043	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8186.245	8186.245	8186.245	8186.245	8186.245	901
Divider panel		1 pc(s).	8609.202	8609.202	8609.202	8609.202	8609.202	905
Divider panel for module plates		1 pc(s).	8609.211	8609.211	8609.211	8609.211	8609.211	906
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	–	8618.000	–	8618.010	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.700	8619.720	8619.700	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	–	4116.500	–	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4114.000	4116.000	4114.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4590.700	4590.700	4590.700	4590.700	4590.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.010	8617.030	8617.040	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.030	8617.030	8617.030	8617.030	8617.030	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.110	8617.130	8617.140	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.130	8617.130	8617.130	8617.130	8617.130	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.720	8617.720	8617.720	8617.720	8617.720	993
Support strip for the enclosure depth		20 pc(s).	4696.000	4696.000	4696.000	4696.000	4696.000	994
C rail 30/15, for the enclosure width		6 pc(s).	–	4944.000	4945.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	–	8617.800	8617.810	8617.810	8617.830	996
LED system light			see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	1033
Cable entry plates			–	8619.800	8619.801	8619.801	8619.803	1044
		Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			–	8618.800	8618.801	8618.801	8618.803	1045
		Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			–	8618.810	8618.811	8618.811	8618.813	1045
		Packs of	–	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.400	8619.410	8619.420	8619.420	8619.440	1059

Basic enclosure, height 2000 mm, depth 400 mm

Width (B) mm		Packs of	600	800	1000	1200	Page
Height (H) mm			2000	2000	2000	2000	
Depth (T) mm			400	400	400	400	
Mounting plate width (F) mm			499	699	899	1099	
Mounting plate height (G) mm			1896	1896	1896	1896	
Model No.		1 pc(s).	**8604.000**	**8804.000**	**8004.000**	**8204.000**	
Weight kg			95.4	120.0	152.0	183.0	
Product-specific scope of supply							
Door(s)			1	1	2	2	
Accessories							
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.003	8640.005	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.031	8640.031	8640.031	8640.031	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.023	8640.024	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.041	8640.041	8640.041	8640.041	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8104.245	8104.245	8104.245	8104.245	901
Divider panel		1 pc(s).	8609.203	8609.203	8609.203	8609.203	905
Divider panel for module plates			–	–	–	–	
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	8618.020	8618.030	–	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.730	8619.710	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4118.500	4115.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4118.000	4115.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4591.700	4591.700	4591.700	4591.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.040	8617.050	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.010	8617.010	8617.010	8617.010	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.140	8617.150	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.110	8617.110	8617.110	8617.110	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.700	8617.700	8617.700	8617.700	993
Support strip for the enclosure depth		20 pc(s).	4694.000	4694.000	4694.000	4694.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4945.000	4946.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.810	8617.820	8617.830	996
LED system light			see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	1033
Cable entry plates			8619.800	8619.801	8619.802	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.801	8618.802	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.811	8618.812	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.420	8619.430	8619.440	1059

Baying enclosure system VX25

Basic enclosure, height 2000 mm, depth 500 mm

Width (B) mm		Packs of	400	600	800	1000	1200	Page
Height (H) mm			2000	2000	2000	2000	2000	
Depth (T) mm			500	500	500	500	500	
Mounting plate width (F) mm			299	499	699	899	1099	
Mounting plate height (G) mm			1896	1896	1896	1896	1896	
Model No.		1 pc(s).	**8405.000**	**8605.000**	**8805.000**	**8005.000**	**8205.000**	
Weight kg			73.0	98.0	122.0	156.0	187.0	
Product-specific scope of supply								
Door(s)			1	1	1	2	2	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.001	8640.002	8640.003	8640.005	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.032	8640.032	8640.032	8640.032	8640.032	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.021	8640.022	8640.023	8640.024	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.042	8640.042	8640.042	8640.042	8640.042	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8105.245	8105.245	8105.245	8105.245	8105.245	901
Divider panel		1 pc(s).	8609.204	8609.204	8609.204	8609.204	8609.204	905
Divider panel for module plates		1 pc(s).	8609.212	8609.212	8609.212	8609.212	8609.212	906
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	–	8618.020	8618.030	–	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.700	8619.720	8619.730	8619.710	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	–	4116.500	4118.500	4115.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4114.000	4116.000	4118.000	4115.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4591.700	4591.700	4591.700	4591.700	4591.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.010	8617.030	8617.040	8617.050	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.020	8617.020	8617.020	8617.020	8617.020	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.110	8617.130	8617.140	8617.150	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.120	8617.120	8617.120	8617.120	8617.120	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.710	8617.710	8617.710	8617.710	8617.710	993
Support strip for the enclosure depth		20 pc(s).	4695.000	4695.000	4695.000	4695.000	4695.000	994
C rail 30/15, for the enclosure width		6 pc(s).	–	4944.000	4945.000	4946.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	–	8617.800	8617.810	8617.820	8617.830	996
LED system light			see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	1033
Cable entry plates			–	8619.800	8619.801	8619.802	8619.803	1044
		Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			–	8618.800	8618.801	8618.802	8618.803	1045
		Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Section for cable entry, rear			–	8618.810	8618.811	8618.812	8618.813	1045
		Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.400	8619.410	8619.420	8619.430	8619.440	1059

Basic enclosure, height 2000 mm, depth 600 mm

Width (B) mm		Packs of	400	600	800	1000	1200	Page
Height (H) mm			2000	2000	2000	2000	2000	
Depth (T) mm			600	600	600	600	600	
Mounting plate width (F) mm			299	499	699	899	1099	
Mounting plate height (G) mm			1896	1896	1896	1896	1896	
Model No.		1 pc(s).	**8406.000**	**8606.000**	**8806.000**	**8006.000**	**8206.000**	
Weight kg			75.2	101.0	126.0	160.0	191.0	
Product-specific scope of supply								
Door(s)			1	1	1	2	2	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.001	8640.002	8640.003	8640.005	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.033	8640.033	8640.033	8640.033	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.021	8640.022	8640.023	8640.024	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.043	8640.043	8640.043	8640.043	8640.043	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8106.245	8106.245	8106.245	8106.245	8106.245	901
Divider panel		1 pc(s).	8609.205	8609.205	8609.205	8609.205	8609.205	905
Divider panel for module plates		1 pc(s).	8609.213	8609.213	8609.213	8609.213	8609.213	906
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	–	8618.020	8618.030	–	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.700	8619.720	8619.730	8619.710	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	–	4116.500	4118.500	4115.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4114.000	4116.000	4118.000	4115.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4591.700	4591.700	4591.700	4591.700	4591.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.010	8617.030	8617.040	8617.050	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.030	8617.030	8617.030	8617.030	8617.030	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.110	8617.130	8617.140	8617.150	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.130	8617.130	8617.130	8617.130	8617.130	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.720	8617.720	8617.720	8617.720	8617.720	993
Support strip for the enclosure depth		20 pc(s).	4696.000	4696.000	4696.000	4696.000	4696.000	994
C rail 30/15, for the enclosure width		6 pc(s).	–	4944.000	4945.000	4946.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	–	8617.800	8617.810	8617.820	8617.830	996
LED system light			see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	1033
Cable entry plates			–	8619.800	8619.801	8619.802	8619.803	1044
		Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			–	8618.800	8618.801	8618.802	8618.803	1045
		Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Section for cable entry, rear			–	8618.810	8618.811	8618.812	8618.813	1045
		Packs of	–	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.400	8619.410	8619.420	8619.430	8619.440	1059

Baying enclosure system VX25

Basic enclosure, height 2000 mm, depth 800 mm

Width (B) mm		Packs of	600	800	1200	Page
Height (H) mm			2000	2000	2000	
Depth (T) mm			800	800	800	
Mounting plate width (F) mm			499	699	1099	
Mounting plate height (G) mm			1896	1896	1896	
Model No.		1 pc(s).	**8608.000**	**8808.000**	**8208.000**	
Weight kg			106.0	138.0	201.0	
Product-specific scope of supply						
Door(s)			1	1	2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.034	8640.034	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.044	8640.044	8640.044	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8108.245	8108.245	8108.245	901
Divider panel		1 pc(s).	8609.206	8609.206	8609.206	905
Divider panel for module plates			–	–	–	
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	8618.020	8618.030	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4591.700	4591.700	4591.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.040	8617.040	8617.040	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.140	8617.140	8617.140	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.730	8617.730	8617.730	993
Support strip for the enclosure depth		20 pc(s).	4697.000	4697.000	4697.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.810	8617.830	996
LED system light			see page	see page	see page	1014
Earth straps			see page	see page	see page	1033
Cable entry plates			8619.800	8619.801	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.801	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.811	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.420	8619.440	1059

Basic enclosure, height 2200 mm, depth 600 mm

Width (B) mm		Packs of	600	800	1200	Page
Height (H) mm			2200	2200	2200	
Depth (T) mm			600	600	600	
Mounting plate width (F) mm			499	699	1099	
Mounting plate height (G) mm			2096	2096	2096	
Model No.		1 pc(s).	**8626.000**	**8826.000**	**8226.000**	
Weight kg			106.0	136.0	204.0	
Product-specific scope of supply						
Door(s)			1	1	2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.003	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.033	8640.033	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.023	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.043	8640.043	8640.043	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8126.245	8126.245	8126.245	901
Divider panel		1 pc(s).	8609.207	8609.207	8609.207	905
Divider panel for module plates			–	–	–	
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	912
Glazed door		1 pc(s).	8618.040	8618.050	–	917
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4118.000	4116.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill		1 pc(s).	4592.700	4592.700	4592.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.030	8617.030	8617.030	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.130	8617.130	8617.130	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.720	8617.720	8617.720	993
Support strip for the enclosure depth		20 pc(s).	4696.000	4696.000	4696.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.810	8617.830	996
LED system light			see page	see page	see page	1014
Earth straps			see page	see page	see page	1033
Cable entry plates			8619.800	8619.801	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.801	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.811	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.420	8619.440	1059

Baying enclosure system VX25

System accessories Page 877 **VX25 basic enclosure** Page 116 **VX25 stainless steel** Page 242 **VX25 EMC-shielded** Page 136

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Glazed door: Extruded aluminium section, powder-coated, single-pane safety glass, 3 mm
- Rear door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated, passivated

Colour:
- Enclosure frame, door frame, corner pieces, panels: RAL 7035
- Viewing window (printed mask on the inside): RAL 9005

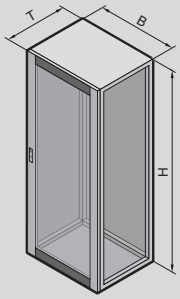
Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure frame
- Door(s) (r/h hinge, may be swapped to opposite side)
- Roof plate
- Glazed door at front
- Rear door
- Gland plates
- Lock: 3 mm double-bit

Approvals:
- UL
- cUL
- CSA

Further approvals can be found on the Internet.



Basic enclosure with glazed door

Width (B) mm		Packs of	600	600	800	800	Page
Height (H) mm			2000	2000	2000	2000	
Depth (T) mm			600	800	600	800	
Model No.		1 pc(s).	**8840.120**	**8840.130**	**8840.100**	**8840.110**	
Weight kg			71.0	75.4	84.2	90.0	
Accessories							
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.002	8640.003	8640.003	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.033	8640.034	8640.033	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.022	8640.023	8640.023	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.043	8640.044	8640.043	8640.044	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel		2 pc(s).	8106.245	8108.245	8106.245	8108.245	901
Divider panel		1 pc(s).	8609.205	8609.206	8609.205	8609.206	905
Divider panel for module plates		1 pc(s).	8609.213	–	8609.213	–	906
Baying bracket, internal		6 pc(s).	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal		6 pc(s).	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external		6 pc(s).	8617.502	8617.502	8617.502	8617.502	912
Comfort handle VX for lock inserts		1 pc(s).	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock		1 pc(s).	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders		1 pc(s).	8618.250	8618.250	8618.250	8618.250	937
Comfort handle VX with security lock insert, lock E1		1 pc(s).	8618.240	8618.240	8618.240	8618.240	937
Comfort handle VX for ASSA lock system		1 pc(s).	8618.270	8618.270	8618.270	8618.270	937
Lock inserts			see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8618.330	8618.330	8618.330	8618.330	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame		4 pc(s).	8619.720	8619.720	8619.730	8619.730	952
Wiring plan pocket, sheet steel, depth 35 mm		1 pc(s).	4116.500	4116.500	4118.500	4118.500	955
Wiring plan pocket, sheet steel, depth 90 mm		1 pc(s).	4116.000	4116.000	4118.000	4118.000	955
Door stay		1 pc(s).	8618.430	8618.430	8618.430	8618.430	956
Door stay for escape routes		1 pc(s).	8618.425	8618.425	8618.425	8618.425	956
Ride-up roller		10 pc(s).	8618.420	8618.420	8618.420	8618.420	956
Punched section with mounting flange 18 x 64 mm for the outer level, in the width		4 pc(s).	8617.030	8617.030	8617.040	8617.040	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth		4 pc(s).	8617.030	8617.040	8617.030	8617.040	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width		4 pc(s).	8617.130	8617.130	8617.140	8617.140	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth		4 pc(s).	8617.130	8617.140	8617.130	8617.140	991
Punched rail 18 x 39 mm for the enclosure depth		4 pc(s).	8617.720	8617.730	8617.720	8617.730	993
Support strip for the enclosure depth		20 pc(s).	4696.000	4697.000	4696.000	4697.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4944.000	4945.000	4945.000	996
Support rail 48 x 26 mm, for the enclosure width		2 pc(s).	8617.800	8617.800	8617.810	8617.810	996
LED system light			see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	1033
Cable entry plates			8619.800	8619.800	8619.801	8619.801	1044
		Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.800	8618.801	8618.801	1045
		Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	
Section for cable entry, rear			8618.810	8618.810	8618.811	8618.811	1045
		Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.410	8619.420	8619.420	1059

Baying enclosure system VX25

System accessories Page 877 **482.6 mm (19") installation accessories** Page 1075 **482.6 mm (19") climate control** Page 466

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Front frame: Extruded aluminium section, powder-coated
- Rear door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated, passivated
- 482.6 mm (19") adaptor sections: Sheet steel, zinc-plated

Colour:
- RAL 7035

Supply includes:
- Enclosure frame
- Front frame (r/h hinge, held on the left via magnetic snap fasteners)
- Rear door (r/h hinge, may be swapped to opposite side)
- Roof plate
- Gland plates
- Adaptor sections, 482.6 mm (19"), front

Electronic enclosure

Height units U	Packs of	33	33	42	42	Page
Width mm		600	600	600	600	
Height mm		1600	1600	2000	2000	
Depth mm		600	800	600	800	
Model No.	1 pc(s).	**8410.000**	**8418.000**	**8430.000**	**8438.000**	
Weight kg		58.0	63.2	67.8	72.2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.002	8640.002	8640.002	8640.002	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.034	8640.033	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.022	8640.022	8640.022	8640.022	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.044	8640.043	8640.044	882
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	4612.000	892
Side panels, screw-fastened, sheet steel	2 pc(s).	8166.245	8168.245	8106.245	8108.245	901
Comfort handle VX for lock inserts	1 pc(s).	8618.200	8618.200	8618.200	8618.200	937
Comfort handle VX for lock inserts and padlock	1 pc(s).	8618.230	8618.230	8618.230	8618.230	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.250	8618.250	8618.250	8618.250	937
Lock inserts		see page	see page	see page	see page	941, 942
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth	4 pc(s).	8617.030	8617.040	8617.030	8617.040	990
LED system light		see page	see page	see page	see page	1014
Section for cable entry, centre	2 pc(s).	8618.800	8618.800	8618.800	8618.800	1045
Section for cable entry, rear	2 pc(s).	8618.810	8618.810	8618.810	8618.810	1045
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.410	8619.410	8619.410	1059
Adaptor section, 482.6 mm (19")	2 pc(s).	8619.300	8619.300	8619.320	8619.320	1080
Adaptor piece, 482.6 mm (19")	4 pc(s).	8619.330	8619.330	8619.330	8619.330	1081
Slide rail with two-sided mounting	10 pc(s).	8613.161	8613.181	8613.161	8613.181	1089
Slide rail with one-sided mounting	10 pc(s).	4531.001	4531.001	4531.001	4531.001	1089
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	1097

System accessories Page 877 **Cable entry** Page 1044

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Roof: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed and powder-coated, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Gland plate: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated

Colour:
- RAL 7035

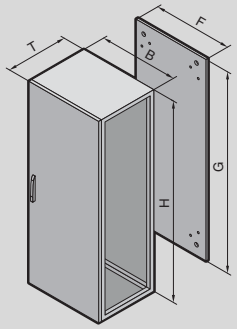
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4

Supply includes:
- Enclosure frame
- Door (r/h hinge, may be swapped to opposite side)
- Roof plate
- Base
- Rear panel
- Mounting plate
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm
- Accessory kit for side panels for upgrading to IP 66/NEMA 4

Note:
- The standard baying connectors VX for bayed suites may be used while maintaining the protection category IP 66/NEMA 4X

Approvals:
- UL
- cUL
- DNV-GL



IP 66/NEMA 4

Width (B) mm	Packs of	800	Page
Height (H) mm		2000	
Depth (T) mm		600	
Mounting plate width (F) mm		699	
Mounting plate height (G) mm		1896	
Model No.	1 pc(s).	**8807.000**	
Accessories			
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	882
Levelling feet	4 pc(s).	4612.000	892
Side panels, screw-fastened, sheet steel	2 pc(s).	8106.245	901
Baying bracket, internal	6 pc(s).	8617.500	912
Baying block, internal	6 pc(s).	8617.501	912
Baying connector, external	6 pc(s).	8617.502	912
Comfort handle VX for lock inserts	1 pc(s).	8618.200	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.250	937
Wiring plan pocket, sheet steel, depth 35 mm	1 pc(s).	4118.500	955
Wiring plan pocket, sheet steel, depth 90 mm	1 pc(s).	4118.000	955
LED system light		see page	1014
Cable duct		see page	1058
Cable clamp rail, right angle section	2 pc(s).	8619.420	1059

Baying enclosure system VX25

System accessories Page 877 **Modular front design** Page 925 **Compartment configuration** Page 410

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:
- Up to IP 54, depending on the panels

Supply includes:
- Enclosure frame
- Rear panel
- Gland plates

Modular enclosure, height 2000 mm

Width mm	Packs of	400	600	800	400	600	800	Page
Height mm		2000	2000	2000	2000	2000	2000	
Depth mm		600	600	600	800	800	800	
Model No.	1 pc(s).	**9680.406**	**9680.606**	**9680.806**	**9680.408**	**9680.608**	**9680.808**	
Weight kg		43.8	51.0	61.0	46.0	53.7	64.2	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.001	8640.002	8640.003	8640.001	8640.002	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.033	8640.033	8640.034	8640.034	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.021	8640.022	8640.023	8640.021	8640.022	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.043	8640.043	8640.044	8640.044	8640.044	882
Side panel, screw-fastened, sheet steel	2 pc(s).	8106.245	8106.245	8106.245	8106.245	8108.245	8108.245	901
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	8617.502	912
Partial door		see page	see page	see page	see page	see page	see page	926
Front trim panel, top, solid		see page	see page	see page	see page	see page	see page	927
Front trim panel, bottom, solid		see page	see page	see page	see page	see page	see page	927
Front trim panel, bottom, vented	1 pc(s).	9682.354	9682.356	9682.358	9682.354	9682.356	9682.358	927
Roof plate IP 55, solid	1 pc(s).	9681.646	9681.666	9681.686	9681.648	9681.668	9681.688	961
Roof plate IP 2X with ventilation hole	1 pc(s).	9681.846	9681.866	9681.886	9681.848	9681.868	9681.888	961
Roof plate for cable entry glands	1 pc(s).	9681.546	9681.566	9681.586	9681.548	9681.568	9681.588	961
Cable entry gland		see page	see page	see page	see page	see page	see page	962

Baying enclosure system VX25

Modular enclosure, height 2200 mm

Width mm	Packs of	400	600	800	400	600	800	Page
Height mm		2200	2200	2200	2200	2200	2200	
Depth mm		600	600	600	800	800	800	
Model No.	1 pc(s).	**9680.426**	**9680.626**	**9680.826**	**9680.428**	**9680.628**	**9680.828**	
Weight kg		43.2	54.0	59.4	46.1	55.8	66.0	
Accessories								
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.001	8640.002	8640.003	8640.001	8640.002	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.033	8640.033	8640.034	8640.034	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.021	8640.022	8640.023	8640.021	8640.022	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.043	8640.043	8640.044	8640.044	8640.044	882
Side panel, screw-fastened, sheet steel	2 pc(s).	8126.245	8126.245	8126.245	8128.245	8128.245	8128.245	901
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	8617.502	912
Partial door		see page	see page	see page	see page	see page	see page	926
Front trim panel, top, solid		see page	see page	see page	see page	see page	see page	927
Front trim panel, bottom, solid		see page	see page	see page	see page	see page	see page	927
Front trim panel, bottom, vented	1 pc(s).	9682.354	9682.356	9682.358	9682.354	9682.356	9682.358	927
Roof plate IP 55, solid	1 pc(s).	9681.646	9681.666	9681.686	9681.648	9681.668	9681.688	961
Roof plate IP 2X with ventilation hole	1 pc(s).	9681.846	9681.866	9681.886	9681.848	9681.868	9681.888	961
Roof plate for cable entry glands	1 pc(s).	9681.546	9681.566	9681.586	9681.548	9681.568	9681.588	961
Cable entry gland		see page	see page	see page	see page	see page	see page	962

Rittal – The System.

Modular front design

see page 925

Baying enclosure system VX25

System accessories Page 877 **Compartment configuration** Page 410 **Fuse-switch disconnector section** Page 415

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plate: Sheet steel, 1.5 mm, zinc-plated
- Front trim panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Compartment side panel: Sheet steel, 1.5 mm, zinc-plated

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2
- IEC 61 641

Protection category IP to IEC 60 529:
- Up to IP 3X, depending on the panels

Supply includes:
- Enclosure frame
- Door
- Roof plate
- Rear panel
- Gland plates
- Front trim panels
- Lock: 3 mm double-bit
- Compartment side panels
- Locating frame for disconnectors with fuses (brands ABB SlimLine/Jean Müller SASIL)

Fuse-switch-disconnector enclosure, height 2000 – 2200 mm

Width mm	Packs of	1000	1200	1000	1200	Page
Height mm		2000	2000	2200	2200	
Depth mm		600	800	600	800	
Model No.	1 pc(s).	**9680.005**	**9680.207**	**9680.025**	**9680.227**	
Weight kg		125.3	149,6	135.2	158.9	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.005	8640.007	8640.005	8640.007	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.034	8640.033	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.024	8640.025	8640.024	8640.025	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.044	8640.043	8640.044	882
Side panel, screw-fastened, sheet steel	2 pc(s).	8106.245	8108.245	8126.245	8128.245	901
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	912
Roof plate IP 2X with ventilation hole	1 pc(s).	9681.806	9681.828	9681.806	9681.828	961

Baying enclosure system VX25

System accessories Page 877 **ISV assembly modules** Page 421 **VX basic enclosure** Page 116 **Lock systems** Page 937

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, dipcoat-primed
- Roof: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Gland plates: Sheet steel, 1.5 mm, zinc-plated

Colour:
- RAL 7035

Basis of test:
- IEC 61 439-1/-2

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure frame
- Door(s) (door hinged on the right, may be swapped to the left)
- Gland plates
- Rear panel
- Roof plate
- Lock: 3 mm double-bit

Please observe the product-specific scope of supply.

Note:
- For 600 mm wide distribution enclosures, please use VX basic enclosures
- For a base/plinth height of 200 mm, 2 packs each of plinth corner pieces, 100 mm and base/plinth trim panels, 100 mm are required

Distribution enclosure

Width mm	Packs of	850	1100	850	1100	Page
Height mm		2000	2000	2000	2000	
Depth mm		400	400	600	600	
Model No.	1 pc(s).	**9666.956**	**9666.966**	**9666.916**	**9666.926**	
Weight kg		111.0	146.0	117.0	156.0	
Product-specific scope of supply						
Number of doors		1	2	1	2	
Also required						
ISV installation kit	1 pc(s).	9666.912	9666.922	9666.912	9666.922	420
Mounting angles ISV	2 pc(s).	9666.712	9666.712	9666.712	9666.712	429
Depth stay for installation kit ISV	2 pc(s).	–	9666.732	–	9666.732	430
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.004	8640.006	8640.004	8640.006	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.031	8640.031	8640.033	8640.033	882
Side panel, screw-fastened, sheet steel	2 pc(s).	8104.245	8104.245	8106.245	8106.245	901
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	8617.501	912
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	912
Roof plate for cable entry glands	1 pc(s).	9681.594	9681.514	9681.596	9681.516	961
Cable entry gland		see page	see page	see page	see page	962

Baying enclosure system VX25

System accessories Page 877 **VX25 basic enclosure** Page 116 **VX25 stainless steel** Page 242

The large enclosures in the VX25 series offer a good level of shielding across a broad frequency range, even in the standard version. For increased EMC requirements, Rittal's VX25 enclosure is also available in a high RF attenuation version.

Material and surface finish:
- Enclosure frame: Sheet steel, 1.5 mm, with magnesium zinc coating
- Roof: Sheet steel, 1.5 mm, with magnesium zinc coating, spray-finished on the outside and paint-free on the inside
- Door: Sheet steel, 2 mm, with magnesium zinc coating, spray-finished on the outside and paint-free on the inside
- Rear panel: Sheet steel, 1.5 mm, with magnesium zinc coating, spray-finished on the outside and paint-free on the inside
- Gland plates: Sheet steel, 1.5 mm, zinc-plated
- Mounting plate: Sheet steel, 3 mm, zinc-plated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

NEMA protection category:
- NEMA 12

Supply includes:
- Enclosure frame
- Door(s) (door hinged on the right, may be swapped to the left)
- Rear panel
- Roof plate
- Gland plates
- Mounting plate
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Note:
- For bayed enclosures, the EMC shielding seal is required

Approvals:
- UL
- cUL

Further approvals can be found on the Internet.

EMC enclosure

Width mm	Packs of	800	800	Page
Height mm		2000	2000	
Depth mm		600	800	
Model No.	1 pc(s).	**8807.010**	**8807.020**	
Weight kg		130.0	135.0	
Accessories				
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.003	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.034	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.023	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.044	882
EMC side panels	2 pc(s).	8106.760	8108.760	1028
EMC shielding seal	1 pc(s).	8800.695	8800.695	1028
Divider panel	1 pc(s).	8609.205	8609.206	905
EMC divider panel seal	1 pc(s).	4348.500	4348.500	1028
Rail for EMC shielding bracket	1 pc(s).	2388.850	2388.850	1029
EMC shielding bracket		see page	see page	1029
EMC shield bus		see page	see page	1030
EMC gland plates	1 pc(s).	8618.821	8618.821	1029
EMC earth clamps		see page	see page	1030
EMC cable glands		see page	see page	1030
Cable duct		see page	see page	1058
LED system light		see page	see page	1014
Earth strap		see page	see page	1033
Earthing braid		see page	see page	1033
Comfort handle VX		see page	see page	937

LED system light

Innovative LED technology produces even more light,
see page 1012

Free-standing enclosure system VX SE

Added efficiency with planning and assembly

Digitalization

- The QR code on all machinable enclosure panels permits fully automated incorporation into the production workflow, for seamless digital monitoring from the incoming goods right through to the finished product.

Reliable engineering

- In the automated production process and when working with virtual prototypes, Rittal supports its customers with a host of conversion and planning tools:
  – Configurators
  – Parts list converters
  – EPLAN Pro Panel
  – 2D/3D CAD data
  – ecl@ss Advanced
  – Technical documentation
  – Data for planners

Large variety of sizes

- Enclosure widths from 600 – 1800 mm
- Widths 1600 and 1800 mm are only available for VX SE. These replace several bayed enclosures.

  Benefits:
  – No baying work
  – One large, continuous mounting plate
  – Savings on accessories:
    – Only one base/plinth
    – Only one handle
  – No need to use a mounting plate infill
  – 300 mm deep enclosures are ideal for use in facility management

Smart construction

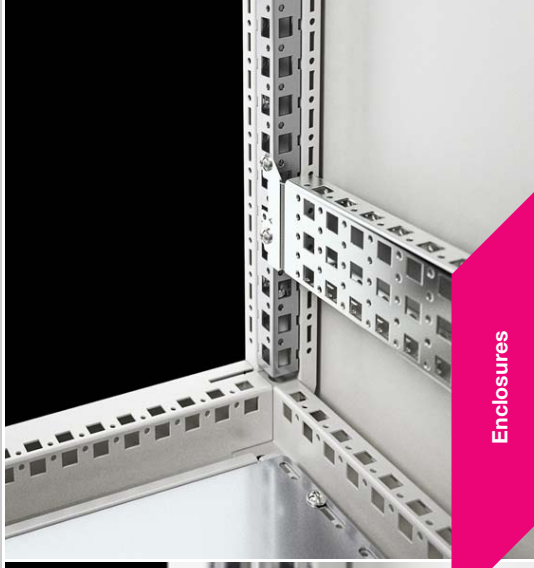
- High stability thanks to a self-supporting, integral construction technique, with roof and sides from a single piece with roll-formed frame
- High protection category up to IP 66
- A wide range of sheet steel and stainless steel versions for almost any application area
- 300 mm deep enclosures are ideal for use in facility management

Free-standing enclosure system VX SE

Compatibility with the VX25 for added efficiency in interior installation, even more efficient

Compatible interior installation

- With the new base assembly and optional adaptor rail, interior installation is compatible with the VX25
- All VX25 punched sections and bars for the inner mounting level may be used without restriction
- The large swing frame supports full or partial installation for 482.6 mm (19″) components. It is fully depth-adjustable within the 25 mm pitch pattern, and hinged on the left or right. Two swing frames may also be fitted together in 1200 mm wide enclosures.



Optimum installation options

- The continuous square holes on the vertical section when using adaptor rail VX support the use of metric screw-fastenings M5, M6, M8

System benefits

- The smart enclosure design from a single piece eliminates the need for additional earth straps from the roof and side panels to the frame
- Automatic potential equalisation from the rear panel to the enclosure as standard
- When using a Rittal climate control device and Rittal fan-and-filter unit in the roof, rear panel and side panels, additional earthing is not required
- The smart enclosure design from a single piece ensures good EMC properties

Simple cable entry

- The blunt edges minimise the risk of cable damage when routing cables underneath the enclosure
- The earthing points pre-labelled as standard provide quick guidance and help to accelerate the work process
- The double edge fold of the gland plates prevents bending even under heavy loads to ensure compliance with the high protection category

Free-standing enclosure system VX SE

System accessories Page 877 **VX SE stainless steel** Page 248 **Base/plinth** Page 880

Material and surface finish:
- Enclosure: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated
- Gland plates: Sheet steel, 1.5 mm, zinc-plated, passivated

Colour:
- RAL 7035

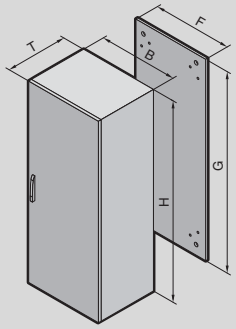
Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Mounting plate
- Gland plates
- Rear panel, detachable
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Please note the product-specific scope of supply.

Approvals:
- UL
- cUL



Basic enclosure, width 600 mm

Width (B) mm		Packs of	600	600	600	Page
Height (H) mm			1800	1800	2000	
Depth (T) mm			300	400	300	
Mounting plate width (F) mm			499	499	499	
Mounting plate height (G) mm			1696	1696	1896	
Model No.		1 pc(s).	**5820.600**	**5830.600**	**5821.600**	
Product-specific scope of supply						
Rear panel, one-piece			■	■	■	
Door(s)			1	1	1	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.002	8640.002	8640.002	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.030	8640.031	8640.030	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.022	8640.022	8640.022	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.040	8640.041	8640.040	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Glazed door		1 pc(s).	8610.685	8610.685	8610.605	918
Comfort handle for lock insert		1 pc(s).	8611.020	8611.020	8611.020	938
Comfort handle for lock insert and padlock		1 pc(s).	8611.290	8611.290	8611.290	938
Comfort handle for profile half-cylinders		1 pc(s).	8611.070	8611.070	8611.070	938
Lock inserts			see page	see page	see page	941, 942
180° hinges		4 pc(s).	8800.190	8800.190	8800.190	951
Punched section with mounting flange, 14 x 39 mm, for door		4 pc(s).	8619.720	8619.720	8619.720	952
Wiring plan pocket, depth 35 mm		1 pc(s).	4116.500	4116.500	4116.500	955
Wiring plan pocket, depth 90 mm		1 pc(s).	4116.000	4116.000	4116.000	955
Door stay		5 pc(s).	4583.000	4583.000	4583.000	956
Door stay for escape routes		1 pc(s).	4583.500	4583.500	4583.500	956
Ride-up roller		10 pc(s).	4538.000	4538.000	4538.000	956
Adaptor rail VX to fit enclosure height		4 pc(s).	8617.750	8617.750	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth		4 pc(s).	8612.030	8612.040	8612.030	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth		4 pc(s).	8612.130	8612.140	8612.130	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]		4 pc(s).	8617.100	8617.110	8617.100	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]		4 pc(s).	8617.130	8617.130	8617.130	991
Punched rail 18 x 39 mm for the enclosure depth[1)]		4 pc(s).	–	8617.700	–	993
Support strip for the outer level for enclosure depth		20 pc(s).	–	4694.000	–	994
Support strip for the inner level for enclosure depth		20 pc(s).	–	4309.000	–	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4944.000	4944.000	996
Support rail 48 x 26 mm, for the enclosure width[1)]		2 pc(s).	8617.800	8617.800	8617.800	996
LED system light			see page	see page	see page	1014
Earth straps			see page	see page	see page	1033
Cable entry plate		2 pc(s).	8619.800	8619.800	8619.800	1044
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	1044
Section for cable entry, centre		2 pc(s).	8618.800	8618.800	8618.800	1045
Section for cable entry, rear		2 pc(s).	8618.810	8618.810	8618.810	1045
Cable duct			see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.410	8619.410	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986

Free-standing enclosure system VX SE

Basic enclosure, width 800 mm

Width (B) mm		Packs of	800	800	800	800	800	800	Page
Height (H) mm			1800	1800	2000	2000	2000	2000	
Depth (T) mm			300	400	300	400	500	600	
Mounting plate width (F) mm			699	699	699	699	699	699	
Mounting plate height (G) mm			1696	1696	1896	1896	1896	1896	
Model No.		1 pc(s).	**5822.600**	**5831.600**	**5823.600**	**5832.600**	**5833.600**	**5834.600**	
Product-specific scope of supply									
Rear panel, one-piece			■	■	■	■	■	■	
Door(s)			1	1	1	1	1	1	
Accessories									
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.003	8640.003	8640.003	8640.003	8640.003	8640.003	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.030	8640.031	8640.030	8640.031	8640.032	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.023	8640.023	8640.023	8640.023	8640.023	8640.023	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.040	8640.041	8640.040	8640.041	8640.042	8640.043	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	892
Glazed door		1 pc(s).	8610.885	8610.885	8610.805	8610.805	8610.805	8610.805	918
Comfort handle for lock insert		1 pc(s).	8611.020	8611.020	8611.020	8611.020	8611.020	8611.020	938
Comfort handle for lock insert and padlock		1 pc(s).	8611.290	8611.290	8611.290	8611.290	8611.290	8611.290	938
Comfort handle for profile half-cylinders		1 pc(s).	8611.070	8611.070	8611.070	8611.070	8611.070	8611.070	938
Lock inserts			see page	see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8800.190	8800.190	8800.190	8800.190	8800.190	8800.190	951
Punched section with mounting flange, 14 x 39 mm, for door		4 pc(s).	8619.730	8619.730	8619.730	8619.730	8619.730	8619.730	952
Wiring plan pocket, depth 35 mm		1 pc(s).	4118.500	4118.500	4118.500	4118.500	4118.500	4118.500	955
Wiring plan pocket, depth 90 mm		1 pc(s).	4118.000	4118.000	4118.000	4118.000	4118.000	4118.000	955
Door stay		5 pc(s).	4583.000	4583.000	4583.000	4583.000	4583.000	4583.000	956
Door stay for escape routes		1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	956
Ride-up roller		10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	4538.000	956
Adaptor rail VX to fit enclosure height		4 pc(s).	8617.750	8617.750	8617.751	8617.751	8617.751	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth		4 pc(s).	8612.030	8612.040	8612.030	8612.040	8612.050	8612.060	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth		4 pc(s).	8612.130	8612.140	8612.130	8612.140	8612.150	8612.160	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]		4 pc(s).	8617.100	8617.110	8617.100	8617.110	8617.120	8617.130	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]		4 pc(s).	8617.140	8617.140	8617.140	8617.140	8617.140	8617.140	991
Punched rail 18 x 39 mm for the enclosure depth[1)]		4 pc(s).	–	8617.700	–	8617.700	8617.710	8617.720	993
Support strip for the outer level for enclosure depth		20 pc(s).	–	4694.000	–	4694.000	4695.000	4696.000	994
Support strip for the inner level for enclosure depth		20 pc(s).	–	4309.000	–	4309.000	4596.000	8800.130	994
C rail 30/15, for the enclosure width		6 pc(s).	4945.000	4945.000	4945.000	4945.000	4945.000	4945.000	996
Support rail 48 x 26 mm, for the enclosure width[1)]		2 pc(s).	8617.810	8617.810	8617.810	8617.810	8617.810	8617.810	996
LED system light			see page	see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	see page	1033
Cable entry plate		2 pc(s).	8619.801	8619.801	8619.801	8619.801	8619.801	8619.801	1044
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre		2 pc(s).	8618.801	8618.801	8618.801	8618.801	8618.801	8618.801	1045
Section for cable entry, rear		2 pc(s).	8618.811	8618.811	8618.811	8618.811	8618.811	8618.811	1045
Cable duct			see page	see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.420	8619.420	8619.420	8619.420	8619.420	8619.420	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986

Free-standing enclosure system VX SE

Basic enclosure, width 1000 – 1200 mm

Width (B) mm		Packs of	1000	1200	1200	1200	1200	1200	1200	Page
Height (H) mm			1800	1800	1800	2000	2000	2000	2000	
Depth (T) mm			400	300	400	300	400	500	600	
Mounting plate width (F) mm			899	1099	1099	1099	1099	1099	1099	
Mounting plate height (G) mm			1696	1696	1696	1896	1896	1896	1896	
Model No.		1 pc(s).	**5840.600**	**5824.600**	**5841.600**	**5825.600**	**5843.600**	**5844.600**	**5845.600**	
Product-specific scope of supply										
Rear panel, one-piece			■	■	■	■	■	■	■	
Door(s)			2	2	2	2	2	2	2	
Accessories										
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.005	8640.007	8640.007	8640.007	8640.007	8640.007	8640.007	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.031	8640.030	8640.031	8640.030	8640.031	8640.032	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.024	8640.025	8640.025	8640.025	8640.025	8640.025	8640.025	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.041	8640.040	8640.041	8640.040	8640.041	8640.042	8640.043	882
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	4612.000	892
Glazed door			–	–	–	–	–	–	–	
Comfort handle for lock insert		1 pc(s).	8611.020	8611.020	8611.020	8611.020	8611.020	8611.020	8611.020	938
Comfort handle for lock insert and padlock		1 pc(s).	8611.290	8611.290	8611.290	8611.290	8611.290	8611.290	8611.290	938
Comfort handle for profile half-cylinders		1 pc(s).	8611.070	8611.070	8611.070	8611.070	8611.070	8611.070	8611.070	938
Lock inserts			see page	see page	see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8800.190	8800.190	8800.190	8800.190	8800.190	8800.190	8800.190	951
Punched section with mounting flange, 14 x 39 mm, for door		4 pc(s).	8619.710	8619.720	8619.720	8619.720	8619.720	8619.720	8619.720	952
Wiring plan pocket, depth 35 mm		1 pc(s).	4115.500	4116.500	4116.500	4116.500	4116.500	4116.500	4116.500	955
Wiring plan pocket, depth 90 mm		1 pc(s).	4115.000	4116.000	4116.000	4116.000	4116.000	4116.000	4116.000	955
Door stay		5 pc(s).	4583.000	4583.000	4583.000	4583.000	4583.000	4583.000	4583.000	956
Door stay for escape routes		1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	956
Ride-up roller		10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	4538.000	4538.000	956
Adaptor rail VX to fit enclosure height		4 pc(s).	8617.750	8617.750	8617.750	8617.751	8617.751	8617.751	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth		4 pc(s).	8612.040	8612.030	8612.040	8612.030	8612.040	8612.050	8612.060	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth		4 pc(s).	8612.140	8612.130	8612.140	8612.130	8612.140	8612.150	8612.160	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]		4 pc(s).	8617.110	8617.100	8617.110	8617.100	8617.110	8617.120	8617.130	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]		4 pc(s).	8617.150	8617.160	8617.160	8617.160	8617.160	8617.160	8617.160	991
Punched rail 18 x 39 mm for the enclosure depth[1)]		4 pc(s).	8617.700	–	8617.700	–	8617.700	8617.710	8617.720	993
Support strip for the outer level for enclosure depth		20 pc(s).	4694.000	–	4694.000	–	4694.000	4695.000	4696.000	994
Support strip for the inner level for enclosure depth		20 pc(s).	4309.000	–	4309.000	–	4309.000	4596.000	8800.130	994
C rail 30/15, for the enclosure width		6 pc(s).	4946.000	4947.000	4947.000	4947.000	4947.000	4947.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width[1)]		2 pc(s).	8617.820	8617.830	8617.830	8617.830	8617.830	8617.830	8617.830	996
LED system light			see page	see page	see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	see page	see page	1033
Cable entry plate		4 pc(s).	8619.802	8619.803	8619.803	8619.803	8619.803	8619.803	8619.803	1044
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre		4 pc(s).	8618.802	8618.803	8618.803	8618.803	8618.803	8618.803	8618.803	1045
Section for cable entry, rear		4 pc(s).	8618.812	8618.813	8618.813	8618.813	8618.813	8618.813	8618.813	1045
Cable duct			see page	see page	see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.430	8619.440	8619.440	8619.440	8619.440	8619.440	8619.440	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986

Free-standing enclosure system VX SE

Basic enclosure, width 1600 – 1800 mm

Width (B) mm	Packs of	1600	1800	Page
Height (H) mm		1800	2000	
Depth (T) mm		400	500	
Mounting plate width (F) mm		1499	1699	
Mounting plate height (G) mm		1696	1896	
Model No.	1 pc(s).	**5842.600**	**5846.600**	
Product-specific scope of supply				
Rear panel, two-piece		■	■	
Door(s)		2	2	
Accessories				
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.008	8640.009	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.031	8640.032	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.026	8640.027	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.041	8640.042	882
Levelling feet	4 pc(s).	4612.000	4612.000	892
Glazed door		–	–	
Comfort handle for lock insert	1 pc(s).	8611.020	8611.020	938
Comfort handle for lock insert and padlock	1 pc(s).	8611.290	8611.290	938
Comfort handle for profile half-cylinders	1 pc(s).	8611.070	8611.070	938
Lock inserts	1 pc(s).	see page	see page	941, 942
180° hinges	4 pc(s).	8800.190	8800.190	951
Punched section with mounting flange, 14 x 39 mm, for door	4 pc(s).	8619.730	8619.740	952
Wiring plan pocket, depth 35 mm	1 pc(s).	4118.500	–	955
Wiring plan pocket, depth 90 mm	1 pc(s).	4118.000	4123.000	955
Door stay	5 pc(s).	4583.000	4583.000	956
Door stay for escape routes	1 pc(s).	4583.500	4583.500	956
Ride-up roller	10 pc(s).	4538.000	4538.000	956
Adaptor rail VX to fit enclosure height	4 pc(s).	8617.750	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth	4 pc(s).	8612.040	8612.050	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth	4 pc(s).	8612.140	8612.150	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]	4 pc(s).	8617.110	8617.120	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]	4 pc(s).	8617.180	8617.190	991
Punched rail 18 x 39 mm for the enclosure depth[1)]	4 pc(s).	8617.700	8617.710	993
Support strip for the outer level for enclosure depth	20 pc(s).	4694.000	4695.000	994
Support strip for the inner level for enclosure depth	20 pc(s).	4309.000	4596.000	994
LED system light		see page	see page	1014
Earth straps		see page	see page	1033
Section for cable entry, centre	2 pc(s).	8618.804	–	1045
Section for cable entry, rear	2 pc(s).	8618.814	–	1045
Cable duct		see page	see page	1058
Cable clamp rail, right angle section	2 pc(s).	8619.450	8619.460	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986

System accessories Page 877 **VX SE IP 66/NEMA 4X stainless steel** Page 250 **Base/plinth** Page 880

Material and surface finish:
- Enclosure: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Door: Sheet steel, 2 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Rear panel: Sheet steel, 1.5 mm, dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated
- Base: Sheet steel, 1.5 mm, dipcoat-primed and powder-coated, textured paint

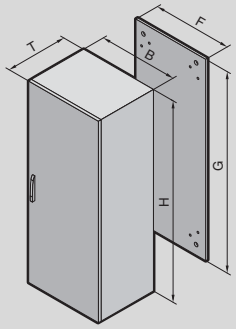
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- Door hinged on the right, may be swapped to the left
- Mounting plate
- Base, solid
- Rear panel, detachable
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Approvals:
- UL
- cUL



IP 66/NEMA 4

Width (B) mm	Packs of	600	800	800	Page
Height (H) mm		1800	1800	2000	
Depth (T) mm		400	400	600	
Mounting plate width (F) mm		499	699	699	
Mounting plate height (G) mm		1696	1696	1896	
Model No.	1 pc(s).	**5830.680**	**5831.680**	**5834.680**	
Door(s)		1	1	1	
Accessories					
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.002	8640.003	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.031	8640.031	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.022	8640.023	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.041	8640.041	8640.043	882
Levelling feet	4 pc(s).	4612.000	4612.000	4612.000	892
Comfort handle for lock insert	1 pc(s).	8611.020	8611.020	8611.020	938
Comfort handle for lock insert and padlock	1 pc(s).	8611.290	8611.290	8611.290	938
Comfort handle for profile half-cylinders	1 pc(s).	8611.070	8611.070	8611.070	938
Lock inserts		see page	see page	see page	941, 942
Punched section with mounting flange, 14 x 39 mm, for door	4 pc(s).	8619.720	8619.730	8619.730	952
Wiring plan pocket, depth 90 mm	1 pc(s).	4116.000	4118.000	4118.000	955
Door stay	5 pc(s).	4583.000	4583.000	4583.000	956
Adaptor rail VX to fit enclosure height	4 pc(s).	8617.750	8617.750	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth	4 pc(s).	8612.040	8612.040	8612.060	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth	4 pc(s).	8612.140	8612.140	8612.160	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]	4 pc(s).	8617.110	8617.110	8617.130	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]	4 pc(s).	8617.130	8617.140	8617.140	991
LED system light		see page	see page	see page	1014
Earth straps		see page	see page	see page	1033
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.420	8619.420	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986

Rittal – The System.

Faster – better – everywhere.

Console systems/ PC enclosure systems/ Industrial Workstations

Product comparison 150

TopConsole system TP

Overview of installation components 153
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600 mm wide 157
800 mm wide 158
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1600 mm wide 160

One-piece consoles TP

One-piece consoles TP 161

Universal consoles TP

Universal consoles TP 162

PC enclosure systems

PC enclosure systems 164

Industrial Workstations

Combination options 166
IW enclosures and worktops 167

Console systems/PC enclosure systems/IW – Product comparison

	TopConsole system	One-piece consoles	
Version	Modular console system for operation and monitoring. The separate modules have independent lock systems.	One-piece console for operation and monitoring, with large mounting plate	
Protection category IP to IEC 60 529	IP 55	IP 55	
Protection category NEMA	NEMA 12	NEMA 12	
Service access	Console from the front, desk unit from above, pedestal from the front (for a depth of 500 mm from the front and rear)	From the front and above	
Lock system	Lock inserts may be replaced individually	Lock inserts may be replaced individually	
Installation options	Option for interior installation with bar systems on a 25 mm pitch pattern in all modules plus additional installation with partial mounting plates	Option for interior installation with bar systems on a 25 mm pitch patterns plus additional installation with partial mounting plates	
from page	153	161	

Console systems/PC enclosure systems/IW – Product comparison

	Universal consoles	PC enclosure systems	Industrial Workstations
	Enclosures with a high level of stability. The standard rear door provides free access to the continuous mounting plate. The mounting plate has a C-fold and is depth-adjustable on a 25 mm pitch pattern. The front may optionally be equipped with a short door and desk section or tall door.	Enclosure body folded from a single piece for a high level of stability. Continuous rear door for simple service access from the rear. High level of access protection thanks to an interior lock on the glazed door and lockable keyboard drawer. There are four versions with different operating concepts available to suit individual requirements.	Modular enclosure system for operation and monitoring. Five different enclosure variants may be combined into individual workstations with special worktops and command panels.
	IP 55	IP 55	IP 54/55
	NEMA 12	NEMA 12	NEMA 12
	From the front and rear	From the front and above	From the front and above
	Lock inserts may be replaced individually	Lock inserts may be replaced individually	Lock inserts may be replaced individually
	Option for interior installation with bar systems on a 25 mm pitch pattern. The desk unit may be designed as an operator console.	Option for interior installation with bar systems on a 25 mm pitch pattern. For the lower area, component shelves are available to accommodate computers, printers etc. plus a paper removal flap allowing the printer to be used without opening the door.	For the lower area, component shelves are available to accommodate computers, printers etc. plus a paper removal flap allowing the printer to be used without opening the door. The worktop may be extended with components from support arm system CP 60 and a command panel to create a complete workstation.
	162	164	166

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TopConsole system TP

Overview of installation components

1 Three-part assembly comprising:
- Console
- Desk unit
- Pedestal

2 Two-part assembly comprising:
- Desk unit
- Pedestal

3 One-part assembly comprising:
- Cover plate
- Pedestal

TopConsole system TP

Fast planning and assembly

- Identical covers for the console and desk unit ensure straightforward engineering
- Individual installation with bar systems
- Simple installation of preassembled modules using partial mounting plates

Simple handling

- Simple one-handed operation and reliable latching of the lid stay in the topmost position
- Secure lock mechanism with end stop acknowledgement, suitable for all common lock inserts
- Stylishly finished with an aluminium strip (accessory) as a design or handle element on the cover

Flexible interior installation

- Rapid assembly of the mounting plate, simply insert and clip into place (400 mm construction depth)
- Depth-adjustable mounting plate (500 mm construction depth)
- Plenty of free space for individual configuration on the mounting plate
- Individual installation with bar systems
- Two-piece gland plates for simple cable entry

TopConsole system TP

System accessories Page 877 **Monitors, keyboards** Page 1109/1110 **Climate control** Page 449

Material:
- Enclosure: Sheet steel, 1.5 mm
- Door and console cover: Sheet steel, 2.0 mm, all-round foamed-in PU seal
- Mounting plate: Sheet steel 2.5 mm (depth 500 m), 3.0 mm (depth 400 mm)

Surface finish:
- Enclosure, cover and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Zinc-plated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
Console
- Enclosure
- Cover hinged at bottom, including cover retainer
- Open base for individual cable entry

Desk section
- Enclosure
- Hinged cover, 2 stays with automatic latching, automatic unlatching on the left and manual unlatching on the right
- Opening for cable entry into the enclosure base

Pedestal
- Enclosure open at top
- Door or double door with locking rod (with depth 400 mm at the front, with depth 500 mm at the front and rear)
- Depth-adjustable mounting plate (with depth 500 mm)
- Gland plates

Approvals:
- UL
- cUL

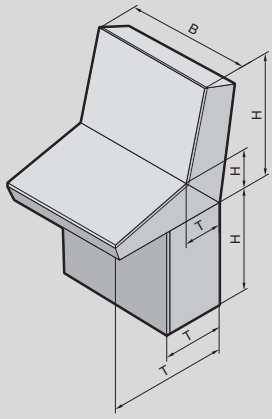
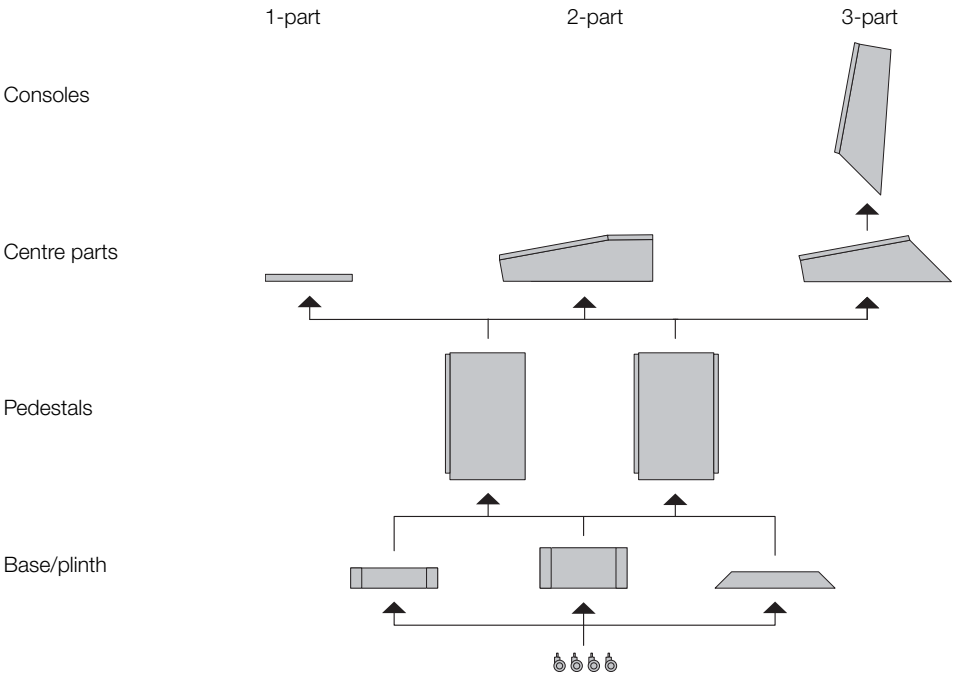
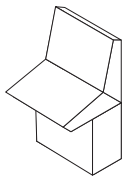
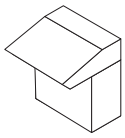
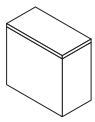
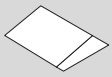
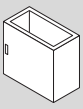


Photo shows a configuration example with equipment not included in the scope of supply

Combination options

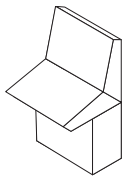
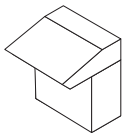
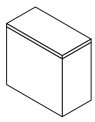


600 mm wide

									
	Configuration		3-part		2-part		1-part		
	Depth of pedestal in mm		400	500	400	500	400	500	
Consoles									
	Height (H) mm	Packs of	720		–		–		Page
	Depth (T) mm		240		–		–		
	Model No.	1 pc(s).	**6720.500**		**–**		**–**		
Accessories									
Partial mounting plate, locatable	Width 200 mm	1 pc(s).	6730.310		–		–		982
	Width 500 mm	1 pc(s).	6730.330		–		–		982
Rail for interior installation	For width	4 pc(s).	5001.050		–		–		995
Centre parts									
	**Height** (H) mm	Packs of	235		235		–		Page
	Depth (T) mm		730		755		–		
	Model No.	1 pc(s).	**6714.500**		**6710.500**		**–**		
Accessories									
Rail for interior installation	For width	4 pc(s).	5001.050		5001.050		–		995
Cover plate									
	Height (H) mm	Packs of	–		–		27		Page
	Depth (T) mm		–		–		400	500	
	Model No.	1 pc(s).	**–**		**–**		**5001.130**	**6730.100**	163
Pedestals									
	**Height** (H) mm	Packs of	675	675	675	675	675	675	Page
	Depth (T) mm		400	500	400	500	400	500	
	Model No.	1 pc(s).	**6700.600**	**6704.600**	**6700.600**	**6704.600**	**6700.600**	**6704.600**	
Accessories									
Base/plinth corner pieces with base/plinth trim panels, front and rear	Height 100 mm	2 pc(s).	8640.002	8640.002	8640.002	8640.002	8640.002	8640.002	881
	Height 200 mm	2 pc(s).	8640.022	8640.022	8640.022	8640.022	8640.022	8640.022	881
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8640.031	8640.032	8640.031	8640.032	8640.031	8640.032	882
	Height 200 mm	2 pc(s).	8640.041	8640.042	8640.041	8640.042	8640.041	8640.042	882
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	891
Rail for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	995
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	992
Support strip	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	994
Punched section with mounting flange, 17 x 73 mm	For door	4 pc(s).	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050	992
Support strip	For door	20 pc(s).	4596.000	4596.000	4596.000	4596.000	4596.000	4596.000	952
Cable clamp rail		1 pc(s).	5001.080	5001.080	5001.080	5001.080	5001.080	5001.080	1059
Sheet steel wiring plan pockets		1 pc(s).	4116.500	4116.500	4116.500	4116.500	4116.500	4116.500	955
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	163
Lock systems			from page	from page	from page	from page	from page	from page	935
LED system light			see page	see page	see page	see page	see page	see page	1014

TopConsole system TP

800 mm wide

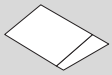




	Configuration	3-part		2-part		1-part		
	Depth of pedestal in mm	400	500	400	500	400	500	

Consoles

Height (H) mm		Packs of	720	–	–	Page
Depth (T) mm			240	–	–	
Model No.		1 pc(s).	**6721.500**	**–**	**–**	
Accessories						
Partial mounting plate, locatable	Width 200 mm	1 pc(s).	6730.310	–	–	982
	Width 500 mm	1 pc(s).	6730.330	–	–	982
	Width 700 mm	1 pc(s).	6730.340	–	–	982
Rail for interior installation	For width	4 pc(s).	5001.051	–	–	995

Centre parts

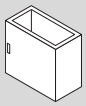


Height (H) mm		Packs of	235	235	–	Page
Depth (T) mm			730	755	–	
Model No.		1 pc(s).	**6715.500**	**6711.500**	**–**	
Accessories						
Rail for interior installation	For width	4 pc(s).	5001.051	5001.051	–	995

Cover plate

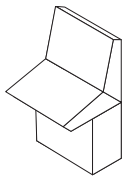
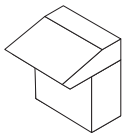
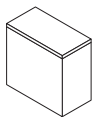
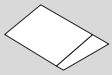
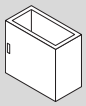
Height (H) mm		Packs of	–	–	27	Page
Depth (T) mm			–	–	400 / 500	
Model No.		1 pc(s).	**–**	**–**	**5001.140** / **6730.110**	163

Pedestals



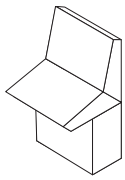
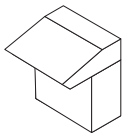
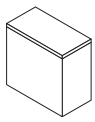
Height (H) mm		Packs of	675	675	675	675	675	675	Page
Depth (T) mm			400	500	400	500	400	500	
Model No.		1 pc(s).	**6701.600**	**6705.600**	**6701.600**	**6705.600**	**6701.600**	**6705.600**	
Accessories									
Base/plinth corner pieces with base/plinth trim panels, front and rear	Height 100 mm	2 pc(s).	8640.003	8640.003	8640.003	8640.003	8640.003	8640.003	881
	Height 200 mm	2 pc(s).	8640.023	8640.023	8640.023	8640.023	8640.023	8640.023	881
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8640.031	8640.032	8640.031	8640.032	8640.031	8640.032	882
	Height 200 mm	2 pc(s).	8640.041	8640.042	8640.041	8640.042	8640.041	8640.042	882
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	891
Rail for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	995
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	992
Support strip	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	994
Support strip	For door	20 pc(s).	4598.000	4598.000	4598.000	4598.000	4598.000	4598.000	952
Cable clamp rail		1 pc(s).	5001.081	5001.081	5001.081	5001.081	5001.081	5001.081	1059
Sheet steel wiring plan pockets		1 pc(s).	4118.500	4118.500	4118.500	4118.500	4118.500	4118.500	955
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	163
Lock systems			from page	from page	from page	from page	from page	from page	935
LED system light			see page	see page	see page	see page	see page	see page	1014

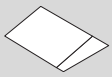
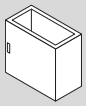
1200 mm wide

								
	Configuration	3-part		2-part		1-part		
	Depth of pedestal in mm	400	500	400	500	400	500	
Consoles								
	Height (H) mm	Packs of	720		–		–	Page
	Depth (T) mm		240		–		–	
	Model No.	1 pc(s).	**6722.500**		**–**		**–**	
Accessories								
Partial mounting plate, locatable	Width 200 mm	1 pc(s).	6730.310		–		–	982
	Width 500 mm	1 pc(s).	6730.330		–		–	982
	Width 700 mm	1 pc(s).	6730.340		–		–	982
Rail for interior installation	For width	4 pc(s).	5001.053		–		–	995
Centre parts								
	**Height** (H) mm	Packs of	235		235		–	Page
	Depth (T) mm		730		755		–	
	Model No.	1 pc(s).	**6716.500**		**6712.500**		**–**	
	Accessories							
Rail for interior installation	For width	4 pc(s).	5001.053		5001.053		–	995
Cover plate								
	Height (H) mm	Packs of	–		–		27	Page
	Depth (T) mm		–		–	400	500	
	Model No.	1 pc(s).	**–**		**–**	**5001.160**	**6730.120**	163
Pedestals								
	**Height** (H) mm	Packs of	675	675	675	675	675	675	Page
	Depth (T) mm		400	500	400	500	400	500	
	Model No.	1 pc(s).	**6702.600**	**6706.600**	**6702.600**	**6706.600**	**6702.600**	**6706.600**	
Accessories									
Base/plinth corner pieces with base/plinth trim panels, front and rear	Height 100 mm	2 pc(s).	8640.007	8640.007	8640.007	8640.007	8640.007	8640.007	881
	Height 200 mm	2 pc(s).	8640.025	8640.025	8640.025	8640.025	8640.025	8640.025	881
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8640.031	8640.032	8640.031	8640.032	8640.031	8640.032	882
	Height 200 mm	2 pc(s).	8640.041	8640.042	8640.041	8640.042	8640.041	8640.042	882
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	891
Rail for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	995
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	992
Support strip	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	994
Punched section with mounting flange, 17 x 73 mm	For door	4 pc(s).	8612.050	8612.050	8612.050	8612.050	8612.050	8612.050	992
Support strip	For door	20 pc(s).	4596.000	4596.000	4596.000	4596.000	4596.000	4596.000	952
Cable clamp rail		1 pc(s).	5001.083	5001.083	5001.083	5001.083	5001.083	5001.083	1059
Sheet steel wiring plan pockets		1 pc(s).	4116.500	4116.500	4116.500	4116.500	4116.500	4116.500	955
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	163
Lock systems			from page	from page	from page	from page	from page	from page	935
LED system light			see page	see page	see page	see page	see page	see page	1014

TopConsole system TP

1600 mm wide

	Configuration		3-part		2-part		1-part		
	Depth of pedestal in mm		400	500	400	500	400	500	
Consoles									
	Height (H) mm	Packs of	720		–		–		Page
	Depth (T) mm		240		–		–		
	Model No.	1 pc(s).	**6723.500**		**–**		**–**		
Accessories									
Partial mounting plate, locatable	Width 200 mm	1 pc(s).	6730.310		–		–		982
	Width 500 mm	1 pc(s).	6730.330		–		–		982
	Width 700 mm	1 pc(s).	6730.340		–		–		982
Rail for interior installation	For width	4 pc(s).	5001.054		–		–		995
Centre parts									
	**Height** (H) mm	Packs of	235		235		–		Page
	Depth (T) mm		730		755		–		
	Model No.	1 pc(s).	**6717.500**		**6713.500**		**–**		
Accessories									
Rail for interior installation	For width	4 pc(s).	5001.054		5001.054		–		995
Trim panel									
	Height (H) mm	Packs of	–		–		27		Page
	Depth (T) mm		–		–		400	500	
	Model No.	1 pc(s).	**–**		**–**		**6730.030**	**6730.130**	163
Pedestals									
	**Height** (H) mm	Packs of	675	675	675	675	675	675	Page
	Depth (T) mm		400	500	400	500	400	500	
	Model No.	1 pc(s).	**6703.600**	**6707.600**	**6703.600**	**6707.600**	**6703.600**	**6707.600**	
Accessories									
Base/plinth corner pieces with base/plinth trim panels, front and rear	Height 100 mm	2 pc(s).	8640.008	8640.008	8640.008	8640.008	8640.008	8640.008	881
	Height 200 mm	2 pc(s).	8640.026	8640.026	8640.026	8640.026	8640.026	8640.026	881
Base/plinth trim panels, sides	Height 100 mm	2 pc(s).	8640.031	8640.032	8640.031	8640.032	8640.031	8640.032	882
	Height 200 mm	2 pc(s).	8640.041	8640.042	8640.041	8640.042	8640.041	8640.042	882
Cross member		2 pc(s).	8601.450	8601.450	8601.450	8601.450	8601.450	8601.450	891
Rail for interior installation	For height	4 pc(s).	5001.050	5001.050	5001.050	5001.050	5001.050	5001.050	995
Punched section with mounting flange, 17 x 73 mm	In the depth	4 pc(s).	8612.140	8612.150	8612.140	8612.150	8612.140	8612.150	992
Support strip	In the depth	20 pc(s).	4694.000	4695.000	4694.000	4695.000	4694.000	4695.000	994
Support strip	For door	20 pc(s).	4598.000	4598.000	4598.000	4598.000	4598.000	4598.000	952
Cable clamp rail	Width 800 mm	1 pc(s).	5001.081	5001.081	5001.081	5001.081	5001.081	5001.081	1059
Sheet steel wiring plan pockets		1 pc(s).	4118.500	4118.500	4118.500	4118.500	4118.500	4118.500	955
TP aluminium strip		1 pc(s).	6731.120	6731.120	6731.120	6731.120	–	–	163
Lock systems			from page	from page	from page	from page	from page	from page	935
LED system light			see page	see page	see page	see page	see page	see page	1014

One-piece consoles TP

System accessories P. 877 **Monitors, keyboards** P. 1109/1110 **Climate control** P. 449 **One-piece consoles, stainless steel** P. 251

Material:
- Enclosure: Sheet steel, 1.5 mm
- Door and console cover: Sheet steel, 2.0 mm, all-round foamed-in PU seal
- Mounting plate: Sheet steel, 3.0 mm

Surface finish:
- Enclosure, cover and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate: Zinc-plated

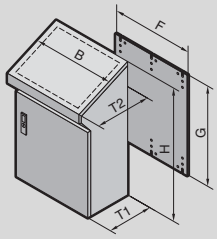
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid back and sides
- Door or double door at front, with locking rod
- Mounting plate
- Cover hinged at rear, 2 stays with automatic locking. Automatic unlocking on the left, manual unlocking on the right
- Gland plates

Approvals:
- UL
- cUL



Width (B) mm	Packs of	600	800	1000	1200	Page
Height (H) mm		975	975	975	975	
Depth, bottom (T1) mm		400	400	400	400	
Depth, top (T2) mm		520	520	520	520	
Mounting plate width (F) mm		530	730	930	1130	
Mounting plate height (G) mm		900	900	900	900	
Model No.	1 pc(s).	**6746.600**	**6748.600**	**6740.600**	**6742.600**	
Door(s)		1	1	2	2	
Accessories						
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.002	8640.003	8640.005	8640.007	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.031	8640.031	8640.031	8640.031	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.022	8640.023	8640.024	8640.025	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.041	8640.041	8640.041	8640.041	882
Cross member	2 pc(s).	8601.450	8601.450	8601.450	8601.450	891
TP aluminium strip	1 pc(s).	6731.120	6731.120	6731.120	6731.120	163
Rail for interior installation		see page	see page	see page	see page	995
Punched section with mounting flange, 17 x 73 mm		see page	see page	see page	see page	992
Cable clamp rails	1 pc(s).	5001.080	5001.081	5001.082	5001.083	1059
Sheet steel wiring plan pockets	1 pc(s).	4116.500	4118.500	4115.500	4116.500	955
LED system light		see page	see page	see page	see page	1014

Universal consoles TP

System accessories Page 877 **Monitors, keyboards** Page 1109/1110 **Climate control** Page 449

Material:
- Enclosure, gland plate: Sheet steel, 1.5 mm
- Door: Sheet steel, 2.0 mm
- Mounting plate: Sheet steel, 3.0 mm

Surface finish:
- Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Mounting plate and gland plates: Zinc-plated

Colour:
- RAL 7035

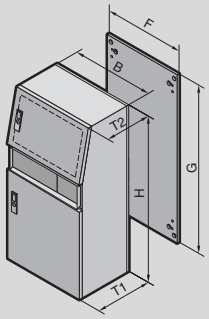
Protection category IP to IEC 60 529:
- IP 55

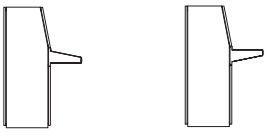
Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure with door(s)
- Mounting plate
- Gland plates

Note:
- For universal console with short front door: The desk section should be fitted in order to maintain the protection category

Approvals:
- UL
- CSA
- TÜV
- Russian Maritime Register of Shipping



				
Version	Packs of	With short front door	With tall front door	Page
Width (B) mm		600	600	
Height (H) mm		1300	1300	
Depth, bottom (T1) mm		500	500	
Depth, top (T2) mm		417.5	417.5	
Mounting plate width (F) mm		499	499	
Mounting plate height (G) mm		1196	1196	
Model No.	1 pc(s).	**2694.500**	**2695.500**	
Weight kg		77.0	80.0	
Also required				
Desk section	1 pc(s).	2696.500	–	163
Accessories				
Base/plinth, complete	1 pc(s).	2807.200	2807.200	890
Cross member	2 pc(s).	8601.450	8601.450	891
Cable clamp rail	2 pc(s).	5001.080	5001.080	1059
Lock systems		from page	from page	935

TP aluminium strip

For retrospective external mounting on TP desk units, consoles and one-piece consoles.

Applications:
- TP three-part/two-part
- One-piece consoles TP
- May be mounted on all enclosures/covers with 20 mm fold height (max. metal thickness 2 mm)

Installation options:
- Easily cut to length for other sizes
- 3 x width 600 mm
- 2 x width 800 mm
- 1 x width 1000 mm + 1 x width 600 mm
- 1 x width 1200 mm
- 1 x width 1600 mm

Material:
- Extruded aluminium section
- Cover caps: Plastic

Surface finish:
- Aluminium extruded section: Natural anodised

Colour:
- Cover caps: RAL 7035

Length mm	**Model No.**
1750	**6731.120**

Supply includes:
- 1 aluminium section
- 6 plastic cover caps
- Drilling template
- Assembly parts

Cover plate

for TP

As cover for a TP pedestal.

Material:
- Sheet steel

Surface finish:
- Textured paint

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Assembly parts

For enclosure		**Model No.**
Width mm	Depth mm	
600	400	**5001.130**
800	400	**5001.140**
1200	400	**5001.160**
1600	400	**6730.030**
600	500	**6730.100**
800	500	**6730.110**
1200	500	**6730.120**
1600	500	**6730.130**

Desk section

for TP universal console

For installing display and control components and a keyboard. Closed at the side and front. Cover plates for top and bottom.

Material:
- Sheet steel

Surface finish:
- Dipcoat-primed, powder-coated on the outside, textured paint

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Assembly parts

Height mm	**Model No.**
200	**2696.500**

PC enclosure systems

Lock systems Page 934 **Climate control** Page 449 **PC enclosure system, stainless steel** Page 252 **System accessories** Page 877

Secure accommodation of all PC components, from monitors, to PCs, to keyboards. For ultimate ease of operation in a modern design. Perfect protection from humidity and dirt, temperature fluctuations and unauthorised access.

Material:
– Enclosure, door, rear door, mounting compartment, supports: Sheet steel
– Handles, decorative trim panels: Plastic
– Door trim panel: Aluminium
– Viewing window: Single-pane safety glass

Surface finish:
– Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
– Mounting compartment, support: Powder-coated

Colour:
– Enclosure, door, decorative trim panels, supports: RAL 7035
– Handle: RAL 7015
– Monitor panel, door centre part: RAL 7015

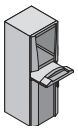
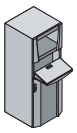
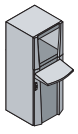
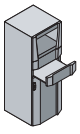
Protection category IP to IEC 60 529:
– IP 55

Protection category NEMA:
– NEMA 12

Supply includes:
– Enclosure, door, rear door
Please note the product-specific scope of supply.

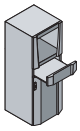
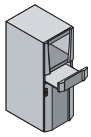
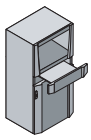
Approvals:
– UL
– cUL

Width 600 mm

						
Width mm	Packs of	600	600	600	600	Page
Height mm		1600	1600	1600	1600	
Depth mm		636	636	636	636	
Product-specific scope of supply						
Glazed door, top		■	■	■	■	
Keyboard drawer		■	–	–	■	
Component shelf		■	■	■	■	
Fold-out keyboard tray		–	■	–	–	
Desk section		–	–	■	–	
Mounting compartment, small		–	–	–	■	
Model No.	1 pc(s).	**5366.050**	**5366.150**	**5366.250**	**5366.350**	
Max. keyboard dimensions (W x H x D) mm		480 x 70 x 260	497 x 50 x 250 497 x 60 x 200	540 x 40 x 175	480 x 70 x 260	
Weight kg		101.4	98.0	95.5	95.5	
Accessories						
Base/plinth, stationary	1 pc(s).	8800.920	8800.920	8800.920	8800.920	890
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.002	8640.002	8640.002	8640.002	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.033	8640.033	8640.033	882
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.022	8640.022	8640.022	8640.022	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.043	8640.043	8640.043	881
Partial mounting plates[1)]	1 pc(s).	8617.550	8617.550	8617.550	8617.550	975
Component shelf, pull-out	1 pc(s).	6902.960	6902.960	6902.960	6902.960	1007
Drawer tray	1 pc(s).	6902.700	6902.700	6902.700	6902.700	1007
Paper removal flap	1 pc(s).	6903.200	6903.200	6903.200	6903.200	1116

[1)] The adaptor rail for VX compatibility is required for the installation, see page 995

Width 600 – 800 mm

					
Width mm	Packs of	600	600	800	Page
Height mm		1600	1600	1600	
Depth mm		636	836	636	
Product-specific scope of supply					
Keyboard drawer		■	■	■	
Mounting compartment, large		■	–	–	
Glazed door, top		–	■	■	
Component shelf		–	■	■	
Model No.	1 pc(s).	**5366.450**	**5368.050**	**5386.050**	
Max. keyboard dimensions (W x H x D) mm		480 x 70 x 260	480 x 70 x 260	480 x 70 x 260	
Weight kg		97.5	111.0	117.6	
Accessories					
Base/plinth, stationary	1 pc(s).	8800.920	–	–	890
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.002	8640.002	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.034	8640.033	881
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.022	8640.022	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.044	8640.043	881
Partial mounting plates[1)]	1 pc(s).	8617.550	8617.550	8617.580	975
Component shelf, pull-out	1 pc(s).	6902.960	6902.980	–	1007
Drawer tray	1 pc(s).	6902.700	6902.700	–	1007
Paper removal flap	1 pc(s).	6903.200	6903.200	6903.200	1116

[1)] The adaptor rail for VX compatibility is required for the installation, see page 995

Industrial Workstations

System accessories Page 877 **Comfort Panel** Page 172 **Optipanel** Page 174 **TFT monitor** Page 1109

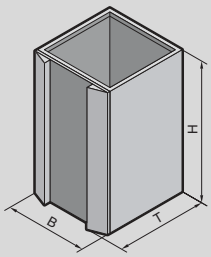
Material:
- Enclosure, roof, drawer tray, designer door, rear wall and rear door: Sheet steel
- Worktop: Chipboard, plastic-laminated on both sides (edging)
- Handle: Aluminium, powder-coated

Surface finish:
- Enclosure: Dipcoat-primed, powder-coated on the outside, textured paint

Farbe:
- Enclosure, worktop: RAL 7035
- Worktop edge strip: RAL 7015
- Worktop handle: RAL 9006

Protection category:
- See table

Supply includes:
Available on the Internet



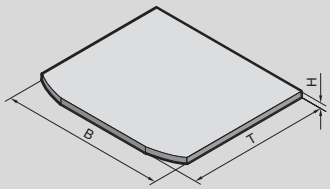
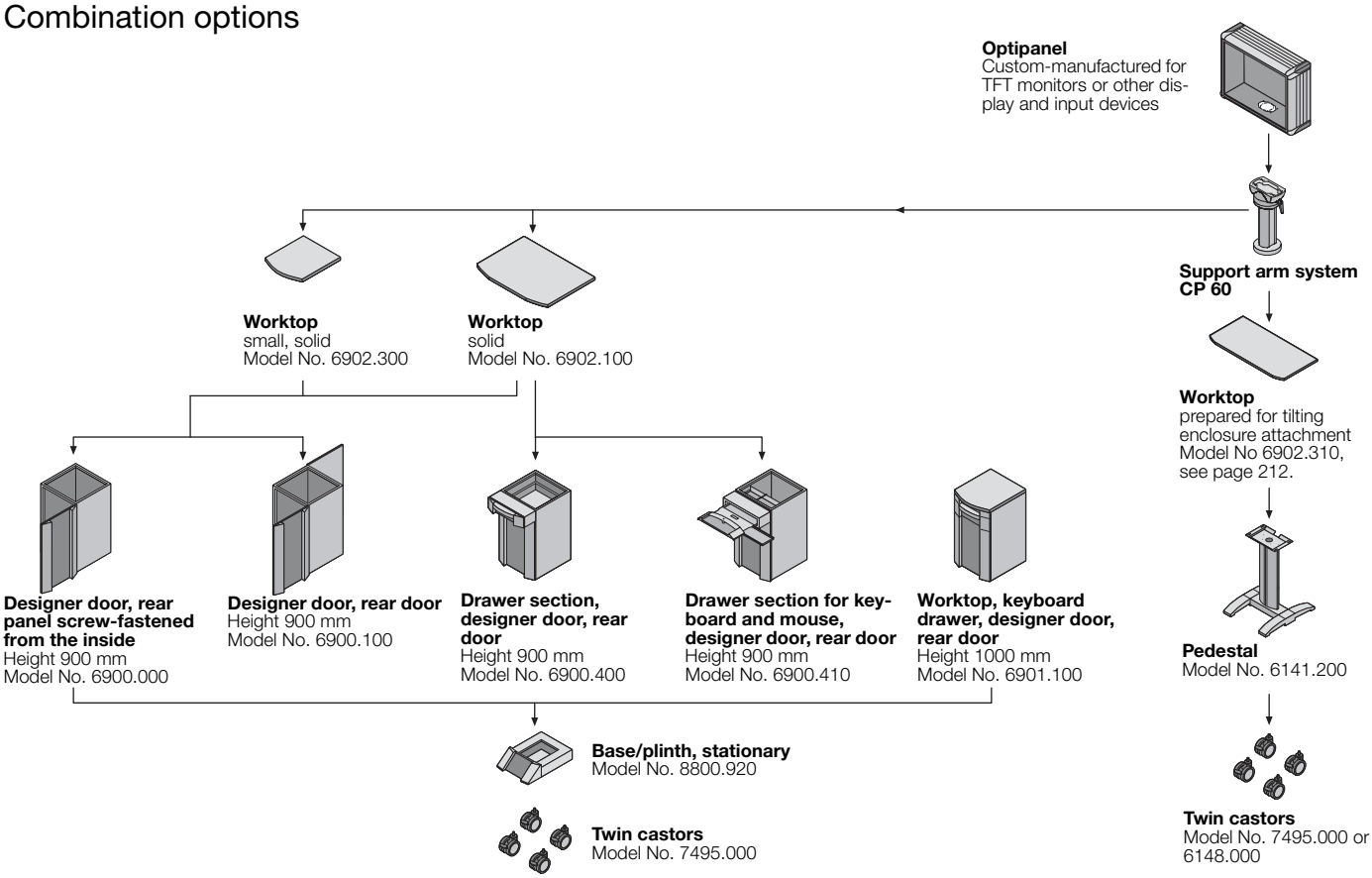


Photo shows a configuration example with equipment not included in the scope of supply

Combination options



IW enclosures and worktops

Enclosure										Page
Version					Designer door, rear panel screw-fastened from the inside	Designer door, rear door	Drawer section, designer door, rear door	Drawer section for keyboard and mouse, designer door, rear door	Worktop, keyboard drawer, designer door, rear door	
Width (B) mm					600	600	600	600	600	
Height (H) mm					900	900	900	900	1000	
Depth (T) mm					600	600	600 (890)	600 (890)	645	
Weight (kg)					54.9	59.9	73	73	91	
Model No.					**6900.000**	**6900.100**	**6900.400**	**6901.410**	**6901.100**	
Protection category IP to IEC 60 529					IP 55		IP 54			
Protection category NEMA					NEMA 12		NEMA 12			
	Width (B) mm	**Height** (H) mm	**Depth** (T) mm	Weight kg	**Model No.**					
Worktops	610	38	645	11.6	**6902.300**	**6902.300**	–	–	■	
	1000	38	895	24	**6902.100**	**6902.100**	**6902.100**	**6902.100**	–	

Accessories	Packs of						
Base/plinth, stationary	1 pc(s).	8800.920	8800.920	8800.920	8800.920	8800.920	890
Cross member, adjustable	2 pc(s).	8601.680	8601.680	8601.680	8601.680	–	891
Twin castors	4 pc(s).	7495.000	7495.000	7495.000	7495.000	7495.000	893
Handle adaptor for comfort handle	1 pc(s).	8611.300	8611.300	–	–	–	918
Cable gland	1 pc(s).	6902.770	6902.770	6902.770	6902.770	6902.770	1046
Partial mounting plate VX for enclosure width 600 mm[1)]	1 pc(s).	see page	see page	see page	see page	see page	975
Component shelf, static installation	1 pc(s).	8800.900	8800.900	8800.900	8800.900	8800.900	1007
Component shelf, pull-out	1 pc(s).	6902.960	6902.960	6902.960	6902.960	6902.960	1007
Drawer tray	1 pc(s).	6902.700	6902.700	6902.700	6902.700	6902.700	1007
Paper removal flap	1 pc(s).	6903.200	6903.200	6903.200	6903.200	6903.200	1116
Support arm systems		see page	see page	see page	see page	see page	183
Operating housings		see page	see page	see page	see page	see page	169

[1)] The adaptor rail for VX compatibility is required for the installation, see page 995

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Operating housings/ support arm systems/ stand systems

Comfort Panel

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Optipanel

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Operating housings AX

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Compact Panel

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Compact Panel 181

Support arm systems

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Stand systems

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Operating housings – Product comparison

		Comfort Panel	Optipanel	
Design		Enclosure made from extruded aluminium section with cooling fins for optimum passive cooling	Enclosure made from extruded aluminium section	
Protection category IP to IEC 60 529		IP 65	IP 65	
Protection category NEMA		NEMA 12	NEMA 12	
No. of sizes		7 standard sizes available off the shelf	7 standard sizes available off the shelf	
Support arm connection	Cross-section	▭ 120 x 65 mm up to depth 74 mm, Ø 130 mm from depth 152 mm	▭ 120 x 65 mm depth 100 mm, Ø 130 mm depth 150 mm	
	Quantity/ position	1/top Bottom by rotating the enclosure	1/top Bottom by rotating the enclosure	
Servicing access		From the rear, depending on the enclosure, hinged or screw-fastened; with the screw-fastened rear panel, the front flips open	From the rear, hinged rear panel	
Lock system		Lock inserts may be replaced individually	Lock inserts may be replaced individually	
Equipment		Prepared for the direct mounting of standard machine controllers and industrial PCs with corresponding screw clamps; all-round mounting channels integrated into the section for individual mounting of accessory components	Prepared for the direct mounting of standard machine controllers and industrial PCs with corresponding screw clamps	
from page		172	174	

Operating housings – Product comparison

	Operating housings AX with handle strips	Operating housing AX for desktop TFT	Compact Panel
	Enclosure made from sheet steel and front panel made from aluminium	Sheet steel enclosure and viewing panel made from 3 mm single-pane safety glass	Roof and base tray made from die-cast zinc, powder-coated, side panels made from extruded aluminium section, powder-coated
	IP 55	IP 65	IP 65
	NEMA 12	NEMA 12	NEMA 12
	10 standard sizes available off the shelf	1 standard size available off the shelf	4 standard sizes available off the shelf
	Ø 130 mm	Ø 130 mm	▭ 90 x 71 mm for CP 40, steel, the enclosure may optionally be mounted directly on a rotatable wall mounting
	1/top Bottom by rotating the enclosure, optional off-centre support arm connection, pre-formed	1/top Bottom by rotating the enclosure, optional off-centre support arm connection, pre-formed	1/top Bottom by rotating the enclosure
	Depends on the enclosure, from the front or rear	From the rear	From the rear, hinged rear panel
	Lock inserts may be replaced individually	Lock inserts may be replaced individually	Screw-fastened
	Interior installation bracket with system punchings for configuration with punched sections with mounting flanges 14 x 39 mm on a 25 mm pitch pattern. Simple machining of the front panel for installing machine controllers, industrial PCs or switches.	Retainer for desktop TFT with VESA 75/100 locator up to 24″ in the formats 16:9/16:10	The customer's own front panels (2 – 6 mm) are easily inserted from the rear and secured with screw clamps
	178	180	181

Comfort Panel

System accessories Page 877 **Support arm systems** Page 183 **Stand systems** Page 211 **Industrial Workstations** Page 166

Material:
– Enclosure:
Extruded aluminium section
– Corner pieces: Die-cast zinc
– Corner protectors: Plastic

Colour:
– Enclosure: Natural anodised
– Corner pieces: RAL 7035
– Corner protectors: similar to RAL 7024

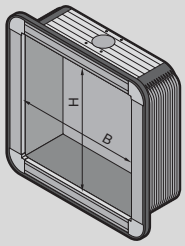
Protection category IP to IEC 60 529:
– IP 65

Protection category NEMA:
– NEMA 12

Supply includes:
– Seals and assembly parts for front panels

Note:
– The support arm connection may be swapped over by rotating the enclosure

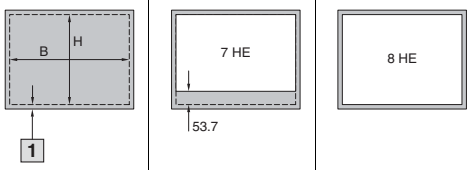
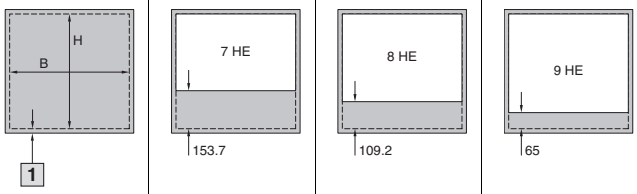
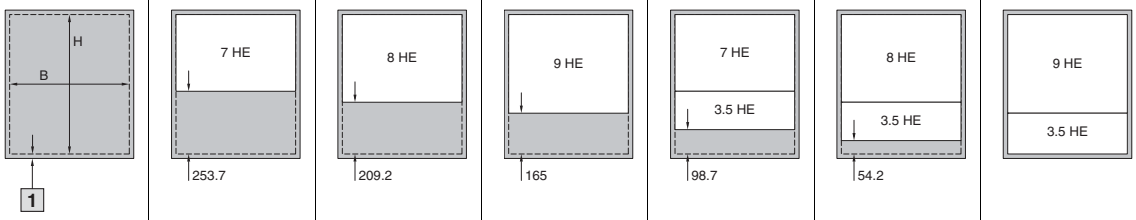
Approvals:
– UL
– cUL



For front panel width (B) mm	Packs of	520			520		520		Page
For front panel height (H) mm		400			500		600		
Installation depth mm		74	152	191	152	191	152	191	
Model No.	1 pc(s).	**6372.541**	**6372.542**	**6372.543**	**6372.552**	**6372.553**	**6372.562**	**6372.563**	
Weight kg		7.8	11.7	13.8	12.3	15.2	13.5	16.7	
Design									
Support arm connection □ 120 x 65 mm		■	–	–	–	–	–	–	
Support arm connection Ø 130 mm		–	■	■	■	■	■	■	
Hinged rear panel on the long side, with screw lock		■	–	–	–	–	–	–	
Hinged rear panel on the hinged long side, with cam[1]		–	■	–	■	–	■	–	
Screw-fastened rear panel[2]		–	–	■	–	■	–	■	
Accessories									
Front panel	1 pc(s).	6028.014	6028.014	6028.014	6028.015	6028.015	6028.016	6028.016	1107
Cover plate for support arm connection	1 pc(s).	6505.100	6505.500	6505.500	6505.500	6505.500	6505.500	6505.500	1107
Mounting bracket for interior installation	4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	1000
Spring nut M5	50 pc(s).	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	1003
Earthing plate	1 pc(s).	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	1034

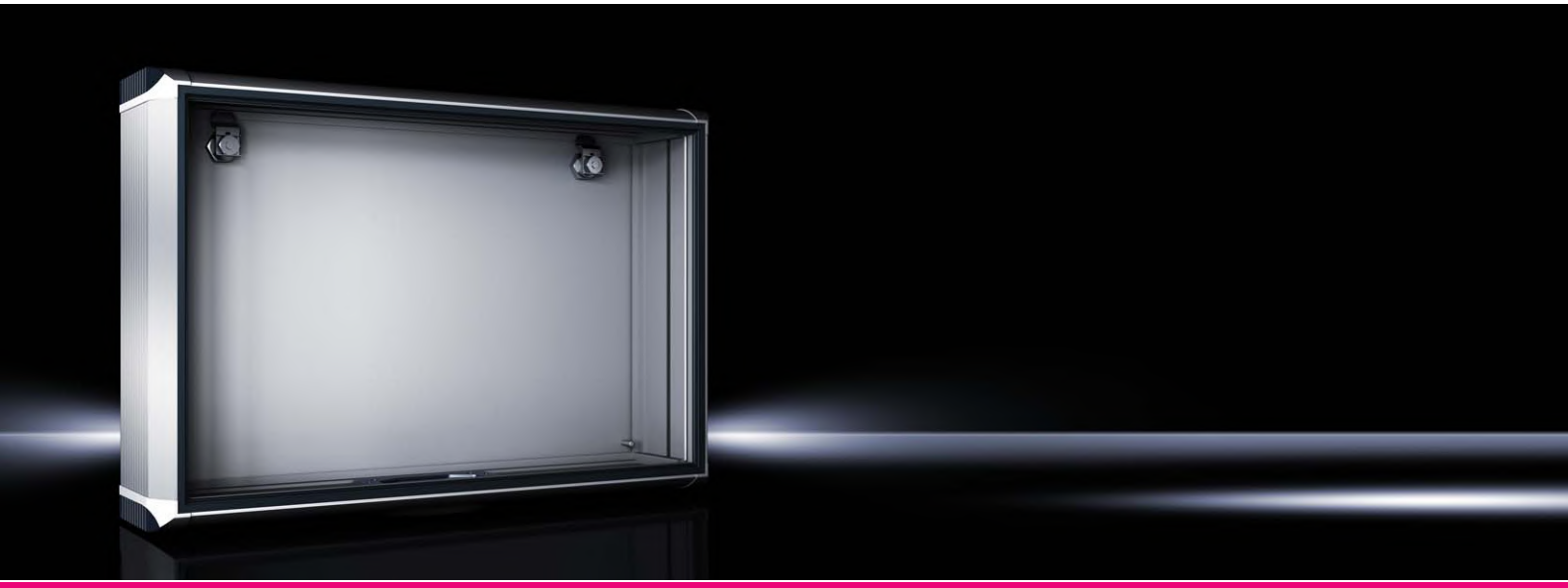
[1] With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 941, plastic handles and T handles, version C, see page 942, 943
[2] Enclosure hinged at the front with side double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 941, plastic handles and T handles, version C, see page 942, 943

Configuration examples

Front panel height mm	Cut-out dimensions
400	
	B = 484 mm H = 364 mm 1 = 18 mm all-round for attaching the front panel
500	
	B = 484 mm H = 464 mm 1 = 18 mm all-round for attaching the front panel
600	
	B = 484 mm H = 564 mm 1 = 18 mm all-round for attaching the front panel
	Free space, available for individual installed equipment such as rows of switches etc.

HE = U

Optipanel



System accessories Page 877 **Support arm systems** Page 183 **Stand systems** Page 211 **Industrial Workstations** Page 166

Material:
– Enclosure: Extruded aluminium section
– Corner pieces: Die-cast zinc
– Corner protector: Plastic

Colour:
– Enclosure: Natural anodised
– Corner pieces: RAL 7035
– Corner protectors: similar to RAL 7024

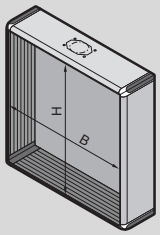
Protection category IP to IEC 60 529:
– IP 65

Protection category NEMA:
– NEMA 12

Supply includes:
– Seals

Note:
– The support arm connection may be swapped over by rotating the enclosure

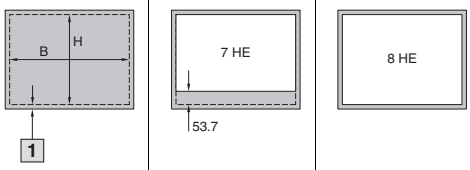
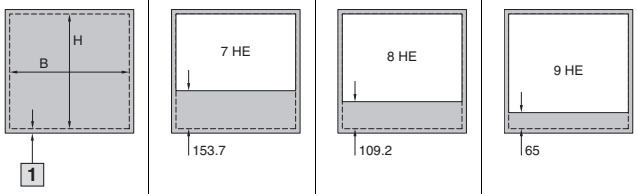
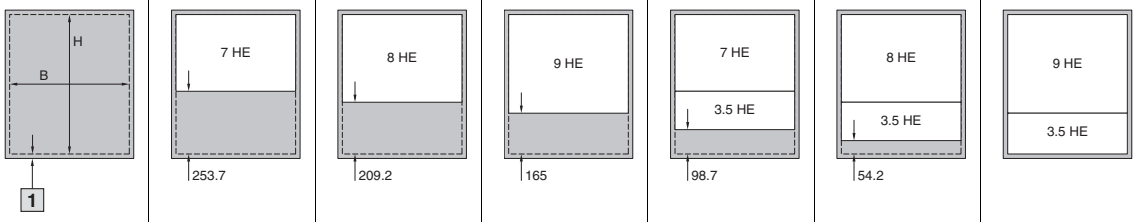
Approvals:
– UL
– cUL



For front panel width (B) mm	Packs of	430	482.6	482.6	520		520	520	Page
For front panel height (H) mm		343	310.3	354.8	400		500	600	
Installation depth mm		100	100	100	100	150	150	150	
Model No.	1 pc(s).	**6380.020**[1]	**6380.000**	**6380.040**[1]	**6380.400**	**6380.410**	**6380.510**	**6380.610**	
Weight kg		5.3	6.2	6.6	5.8	7.3	8.3	9.2	
Design									
Support arm connection □ 120 x 65 mm		■	■	■	■	–	–	–	
Support arm connection Ø 130 mm		–	–	–	–	■	■	■	
Hinged rear panel on the hinged long side[2]		■	■	■	■	■	■	■	
Seals and assembly parts for front panels		–	–	–	■	■	■	■	
Accessories									
Front panel	1 pc(s).	–	6028.010	–	6028.014	6028.014	6028.015	6028.016	1107
Cover plate for support arm connection	1 pc(s).	6505.100	6505.100	6505.100	6505.100	6505.500	6505.500	6505.500	1107
Handle set, horizontal	1 pc(s).	–	6385.010	6385.010	–	–	–	–	1103
Mounting bracket for interior installation	4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	6205.100	1000
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	4597.000	999
Earthing plate	1 pc(s).	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	2570.500	1034
Spring nut M5	50 pc(s).	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	6108.000	1003

[1] To fit TFT monitors, see page 1109
[2] With 3 mm double-bit lock insert, may be exchanged for 41 mm lock inserts, version C, see page 941, plastic handles and T handles, version C, see page 942, 943

Configuration examples

Front panel height mm	Cut-out dimensions
400	
	B = 484 mm H = 364 mm 1 = 18 mm all-round for attaching the front panel
500	
	B = 484 mm H = 464 mm 1 = 18 mm all-round for attaching the front panel
600	
	B = 484 mm H = 564 mm 1 = 18 mm all-round for attaching the front panel

Free space, available for individual installed equipment such as rows of switches etc.

HE = U

Operating housings AX with handle strips

Uniform system in design and function

Modern design, adapted to support arm system CP 60/120/180

Convenience in perfection

- Integral interior installation bracket with system punchings, to match system accessories
- Fast, safe, simple servicing access from the front or rear
- Lock with integral door runners for easy locking

Built-in added value

- Support arm connection for one-person assembly
- Support arm connection Ø 130 mm, pre-formed off-centre in the reinforcement plate, easily drilled out

Ergonomic design

- Design strip including handle function
- Aluminium front panel, easily dismantled for machining

Operating housing AX with handle strips

System accessories Page 877 **Support arm system** Page 183 **Stand systems** Page 211 **Operating housings with door, stainless steel** Page 254

Material:
- Enclosure: Sheet steel
- Door: Sheet steel, all-round foamed-in PU seal
- Handle strips: Aluminium
- Front panel: Aluminium
- Cover caps: Plastic

Surface finish:
- Enclosure and door: Dipcoat-primed, powder-coated on the outside, textured paint
- Handle strip: Natural anodised
- Front panel: Natural anodised

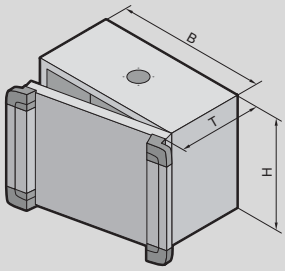
Colour:
- Enclosure and door: RAL 7035
- Cover caps: similar to RAL 7024

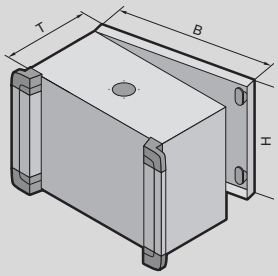
Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure with door, cut-out and reinforcement for support arm connection Ø 130 mm
- Front with maximum cut-out, covered with easily machinable 3 mm aluminium front panel
- Side handle strips and cover caps
- Integral interior installation bracket with system punchings
- Cam lock with 3 mm double-bit insert

Note:
- The support arm connection and door hinge may be swapped over by rotating the enclosure
- Optional: Support arm connection Ø 130 mm, pre-formed off-centre in the reinforcement plate, easily drilled out
- Lock systems for servicing access from the rear: Lock insert may be exchanged for mini-comfort handle AX, 27 mm lock inserts, type A
- Lock systems for servicing access from the front: Lock insert may be exchanged for 27 mm lock inserts, type A





Approvals:
- UL
- cUL

Operating housing AX with handle strips

Width (B) mm		Packs of	300	300	380	380	380	Page
Height (H) mm			200	300	300	380	380	
Depth (T) mm			155	210	210	210	210	
Model No.		1 pc(s).	**6320.050**	**6315.150**	**6315.250**	**6315.350**	**6320.350**	
Weight, approx. kg			4.5	7.0	7.5	9.8	9.8	
Servicing access	from the rear		■	–	–	–	■	
	from the front		–	■	■	■	–	
Accessories								
Punched section with mounting flange 14 x 39 mm, installation in the height		4 pc(s).	–	–	–	8619.700	8619.700	990
Punched section with mounting flange 14 x 39 mm, installation in the width		4 pc(s).	8619.700	8619.700	–	–	–	990
Mounting bracket		4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	999
Mounting bracket for interior installation		4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	1000
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders		1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	940
Lock inserts			see page	see page	see page	see page	see page	941, 942
Earth straps			see page	see page	see page	see page	see page	1033

Width (B) mm		Packs of	500	500	600	600	600	Page
Height (H) mm			500	500	380	600	600	
Depth (T) mm			210	210	210	210	210	
Model No.		1 pc(s).	**6315.450**	**6320.450**	**6320.550**	**6320.650**	**6315.650**	
Weight, approx. kg			16.8	16.8	15.4	18.8	22.8	
Servicing access	from the rear		–	■	■	■	–	
	from the front		■	–	–	–	■	
Accessories								
Punched section with mounting flange 14 x 39 mm, installation in the height		4 pc(s).	8619.710	8619.710	8619.700	8619.720	8619.720	990
Punched section with mounting flange 14 x 39 mm, installation in the width		4 pc(s).	8619.720	8619.720	8619.760	8619.760	8619.760	990
Mounting bracket		4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	999
Mounting bracket for interior installation		4 pc(s).	6205.100	6205.100	6205.100	6205.100	6205.100	1000
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders		1 pc(s).	2537.300	2537.300	2537.300	2537.300	2537.300	940
Lock inserts			see page	see page	see page	see page	see page	941, 942
Earth straps			see page	see page	see page	see page	see page	1033

Operating housing AX for desktop TFT up to 24"

System accessories Page 877 **Support arm systems** Page 183 **Stand systems** Page 211

For the installation of commercially available desktop TFTs with a screen diagonal of up to 24" in the formats 16:9/16:10.

Material:
- Enclosure: Sheet steel
- Door: Sheet steel, all-round foamed-in PU seal
- Handle strips: Aluminium
- Cover caps: Plastic
- Viewing window: Single-pane safety glass
- TFT holder: Sheet steel

Surface finish:
- Enclosure and door: Powder-coated on the outside, textured paint
- Handle strip: Natural anodised

Colour:
- Enclosure and door: RAL 7035
- Cover caps: similar to RAL 7024

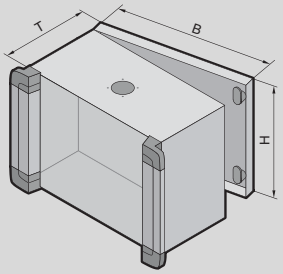
Protection category IP to IEC 60 529:
- IP 65

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure with door, cut-out and reinforcement for support arm connection Ø 130 mm
- Viewing window, single-pane safety glass
- Holder for desktop TFT with VESA 75/100 locator
- Side handle strips and cover caps
- Rear door with r/h hinge
- Cam lock with 3 mm double-bit insert

Note:
- The support arm connection and door hinge may be swapped over by rotating the enclosure
- Optional: Support arm connection Ø 130 mm, pre-formed off-centre in the reinforcement plate, easily drilled out
- Lock insert may be exchanged for mini-comfort handle AX, 27 mm lock inserts, type A

Approvals:
- UL
- cUL



Width (B) mm	Packs of	650	Page
Height (H) mm		450	
Depth (T) mm		155	
Model No.	1 pc(s).	**6321.050**	
Weight, approx. kg		18.0	
Cam lock		2	
Accessories			
Mini-comfort handle AX for lock inserts or profile half-cylinders	1 pc(s).	2537.100	940
Mini-comfort handle AX for padlock and lock inserts or profile half-cylinders	1 pc(s).	2537.300	940
Lock inserts		see page	941, 942

System accessories Page 877 **Support arm systems** Page 183 **Stand systems** Page 211

For small operating units built into front panels. The front panel is inserted from the rear and secured with screw clamps. Special front panels with a material thickness of between 2 and 6 mm are possible. Rear panel optionally hinged on the left or right. Roof tray with cut-out and reinforcement for support arm system CP 40 steel.

Design:
– With support arm connection 90 x 71 mm for CP 40, steel

Material:
– Roof tray, base tray: Die-cast zinc
– Rear panel: Aluminium
– Side parts: Extruded aluminium section
– Screw cover: Plastic

Surface finish:
– Roof tray, base tray, side parts: Powder-coated
– Rear panel: natural anodised

Colour:
– RAL 7024

Protection category IP to IEC 60 529:
– IP 65

Protection category NEMA:
– NEMA 12

Supply includes:
– Roof tray
– Base tray
– Rear panel
– Side parts
– Screw cover
– Seal and screw clamp

Width mm	Packs of	241	241	315	315	Page
Height mm		238	388	238	388	
Depth mm		87	87	87	87	
To fit front panel width mm		178	178	252	252	
To fit front panel height mm		200	350	200	350	
Model No.	1 pc(s).	**6340.000**	**6340.100**	**6340.300**	**6340.400**	
Weight kg		2.8	3.8	3.4	4.5	
Accessories						
Front panel	1 pc(s).	6028.500	6028.510	6028.530	6028.540	1107
Wall mounting bracket	2 pc(s).	6341.000	6341.000	6341.000	6341.000	969
Spring nut M5	50 pc(s).	6108.000	6108.000	6108.000	6108.000	1003
Cover plate	1 pc(s).	6505.200	6505.200	6505.200	6505.200	1107

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Support arm systems

Support arm system CP 40

Component overview, steel....185
Support section CP 40, steel....186
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Support section CP 40, stainless steel....188
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Component overview....193
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Support arm system CP 120

Component overview....197
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Support arm system CP 180

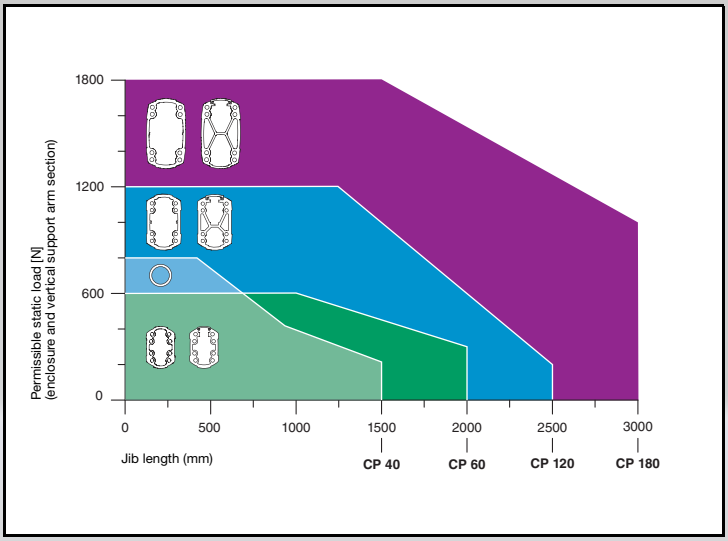
Component overview....201
Support section CP 180....202
Components CP 180....203

Support arm system CP

Support section, height-adjustable....206

Load information

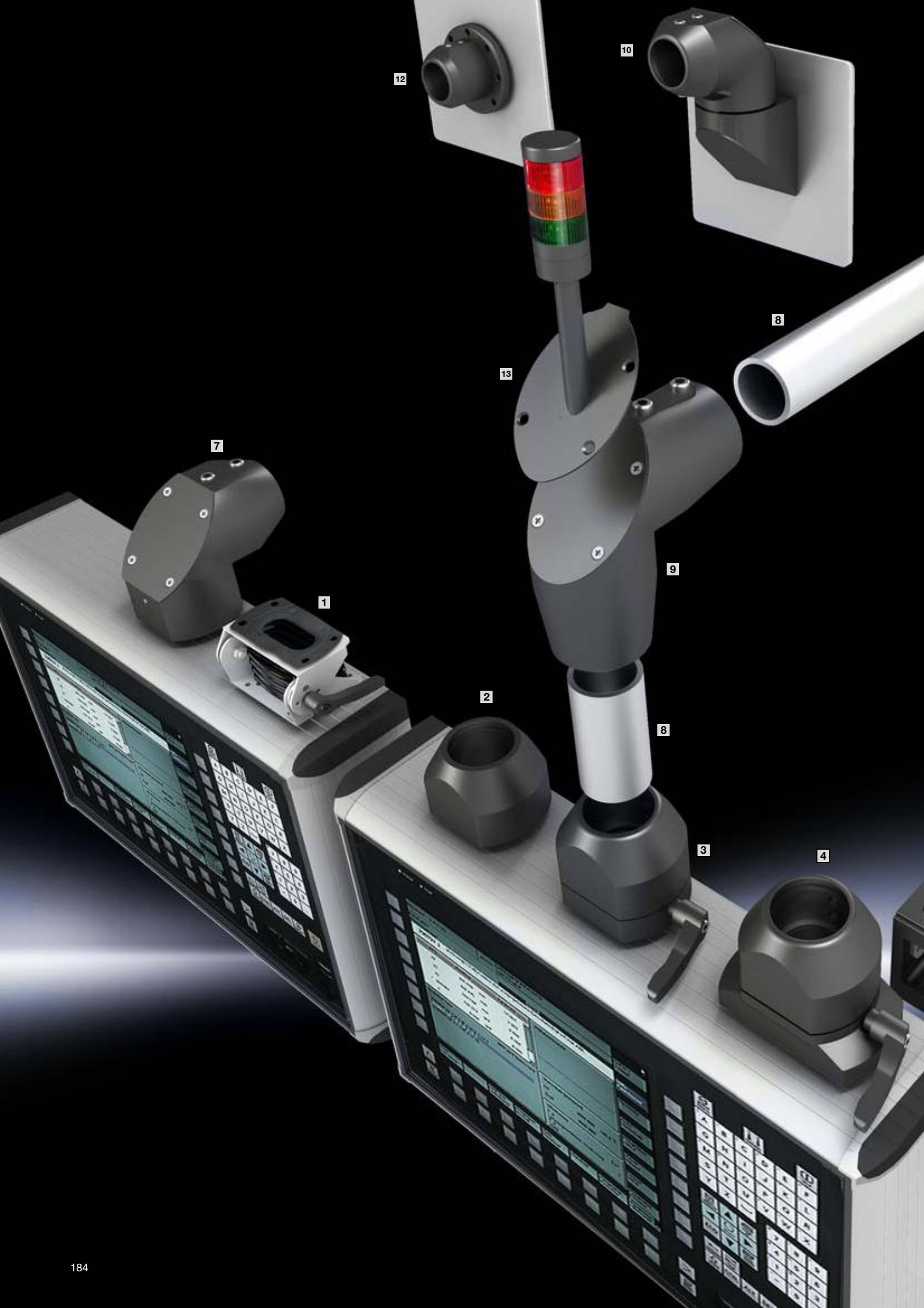
Comparison of support arm systems



Support arm configurator

The support arm configurator determines the correct support arm system according to user-specific parameters.

More detailed information can be found at: www.rittal.com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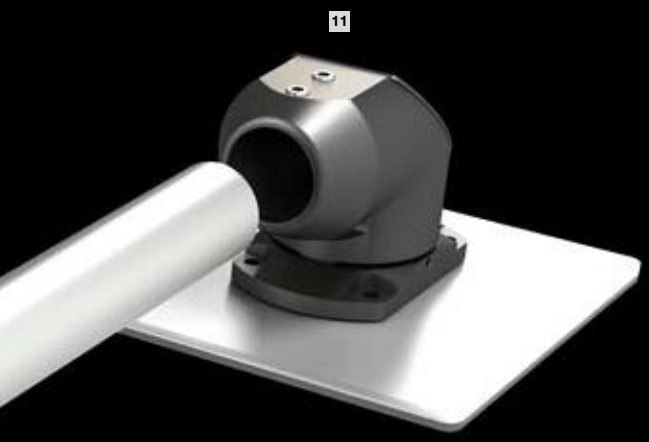
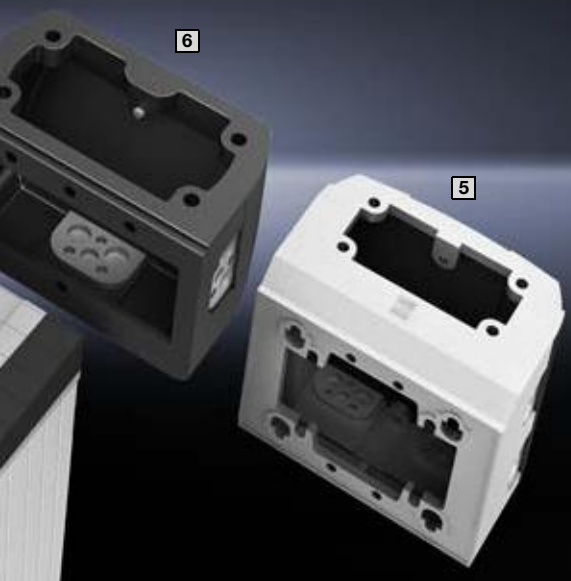
Support arm system CP 40, steel



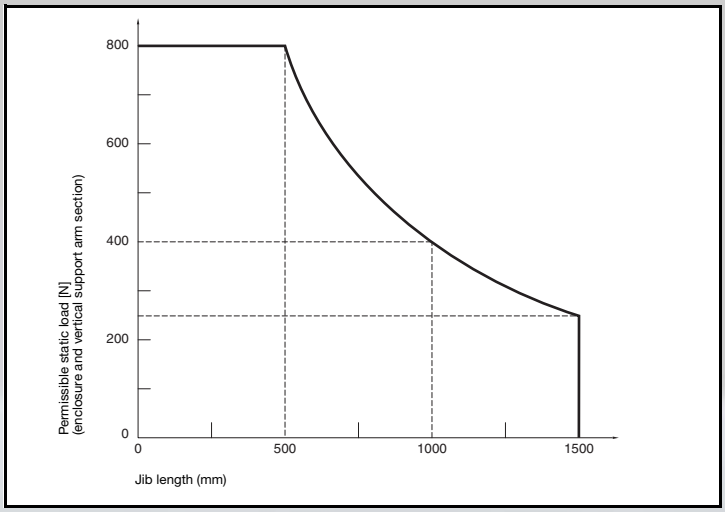
Component overview

1 Tilting adaptor +100/-60° for support arm connection ▭ 120 x 65 mm/ ▭ 90 x 71 mm (6206.460)
2 Attachment CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.070)
3 Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.050)
4 Coupling CP 40, steel, for support arm connection ▭ 120 x 65 mm (6501.130)
5 Connection console VESA 75/100 for support arm connection ▭ 120 x 65 mm (6206.480)
6 Connection console for support arm connection ▭ 120 x 65 mm (6206.490)
7 Angle coupling 90° CP 40, steel (6501.120)
8 Support section CP 40, steel (6501.000, 6501.020)
9 Angle piece 90° CP 40, steel (6501.140)
10 Wall-mounted hinge CP 40, steel (6501.150)
11 Top-mounted joint CP 40, steel (6501.160)
12 Wall/base mounting bracket CP 40, steel (6501.110)
13 Mounting components CP 40, steel, for signal pillar (2375.030)



Load information

When using support arm system CP 40, steel in conjunction with support arm system CP 60 (in the horizontal run of the system), the load diagram for support arm system CP 60 applies.



Support arm system CP 40, steel

Comfort Panel Page 172 **Optipanel** Page 174 **Compact Panel** Page 181 **Operating housings AX with handle strips** Page 178

Support section CP 40, steel
Attached to the connection components via 2 clamping screws

Size:
– Outer diameter: 48.3 mm
– Wall thickness: 4.0 mm

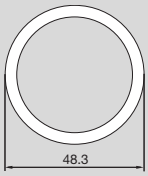
Material:
– Steel conduit, powder-coated

Colour:
– RAL 7035

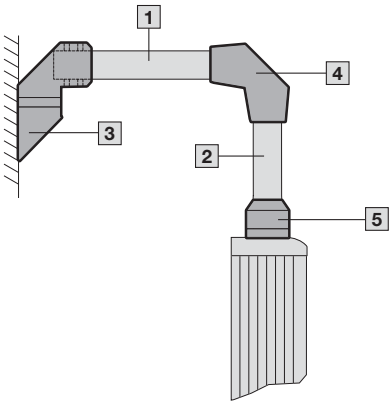
Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Support section, steel

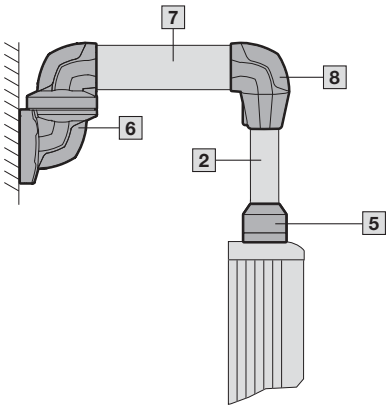
Note:
– Stainless steel, see page 188



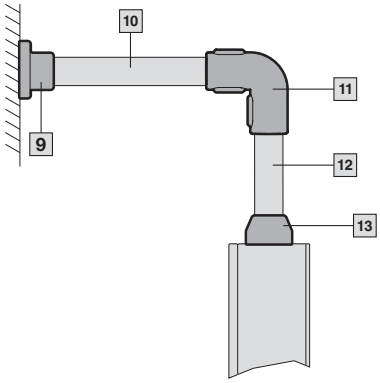
Integral adjustment facility



Combination with support arm system CP 60

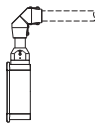
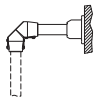
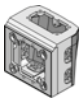
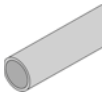
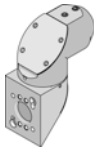


Also available in stainless steel version, see page 188



1 Support section CP 40, steel, 1000 mm (6501.020)
2 Support section CP 40, steel, 500 mm (6501.000)
3 Wall-mounted hinge CP 40, steel (6501.150)
4 Angle piece 90° CP 40, steel (6501.140)
5 Coupling CP 40, steel (6501.050)
6 Wall-mounted hinge CP 60 (6206.740)
7 Support section CP 60, 1000 mm (6206.100)
8 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
9 Wall/base mounting bracket, rigid, CP 40, stainless steel (6663.000)
10 Support section CP 40, stainless steel, 1000 mm (6660.010)
11 Angle piece 90° CP 40, stainless steel (6664.300)
12 Support section CP 40, stainless steel, 500 mm (6660.050)
13 Housing coupling CP 40, stainless steel (6664.000)

Support arm system CP 40, steel

		Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section	Desk section	Wall section
									
							Model No.		
	Tilting adaptor +100/-60° for support arm connection ☐ 120 x 65 mm/☐ 90 x 71 mm								
	see page 209	■	–	–	0.8	7035/ 7024	**6206.460**	–	–
	Attachment CP 40, steel, for support arm connection ☐ 90 x 71 mm								
		–	■	–	1.0	7024	**6501.070**	–	–
	Coupling CP 40, steel, for support arm connection ☐ 90 x 71 mm								
		■	–	–	1.1	7024	**6501.050**	–	–
	Coupling CP 40, steel, for support arm connection ☐ 120 x 65 mm								
		■	–	–	1.5	7024	**6501.130**	–	–
	**Connection console VESA 75/100 for support arm connection ☐ 120 x 65 mm**								
	see page 207	–	■	–	1.1	7035/ 7024	**6206.480**	–	–
	Connection console for support arm connection ☐ 120 x 65 mm								
	see page 207	–	■	–	0.7	7035/ 7024	**6206.490**	–	–
	Angle coupling 90° CP 40, steel, for support arm connection ☐ 90 x 71 mm								
		■	–	–	1.6	7024	**6501.120**	–	–
	**Support section CP 40, steel**								
		–	–	500 1000	2.1 4.2	7035 7035		**6501.000** **6501.020**	
	Angle piece 90° CP 40, steel								
		–	■	–	1.1	7024	**6501.140**	–	**6501.140**
	Top-mounted joint CP 40, steel								
		■	–	–	1.8	7024	–	–	**6501.160**
	**Wall-mounted hinge CP 40, steel**								
		■	–	–	2.2	7024	–	–	**6501.150**
	Wall/base mounting bracket CP 40, steel								
		–	■	–	0.7	7024	–	–	**6501.110**
	Mounting component CP 40, steel, for signal pillar								
	see page 1125	–	■	–	0.3	7024	**2375.030**	–	–
	Accessories								
	Angle adaptor 90° for support arm combination CP 60/40 6206.640								see page 195

Support arm system CP 40, stainless steel

Command panel housing with door, stainless steel P. 254 **Premium Panel, stainless steel** P. 253 **Support section CP 40, steel** P. 186

Support section CP 40, stainless steel
Attached to the connection components via 2 clamping screws

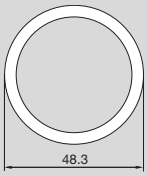
Size:
– Outer diameter: 48.3 mm
– Wall thickness: 3.6 mm

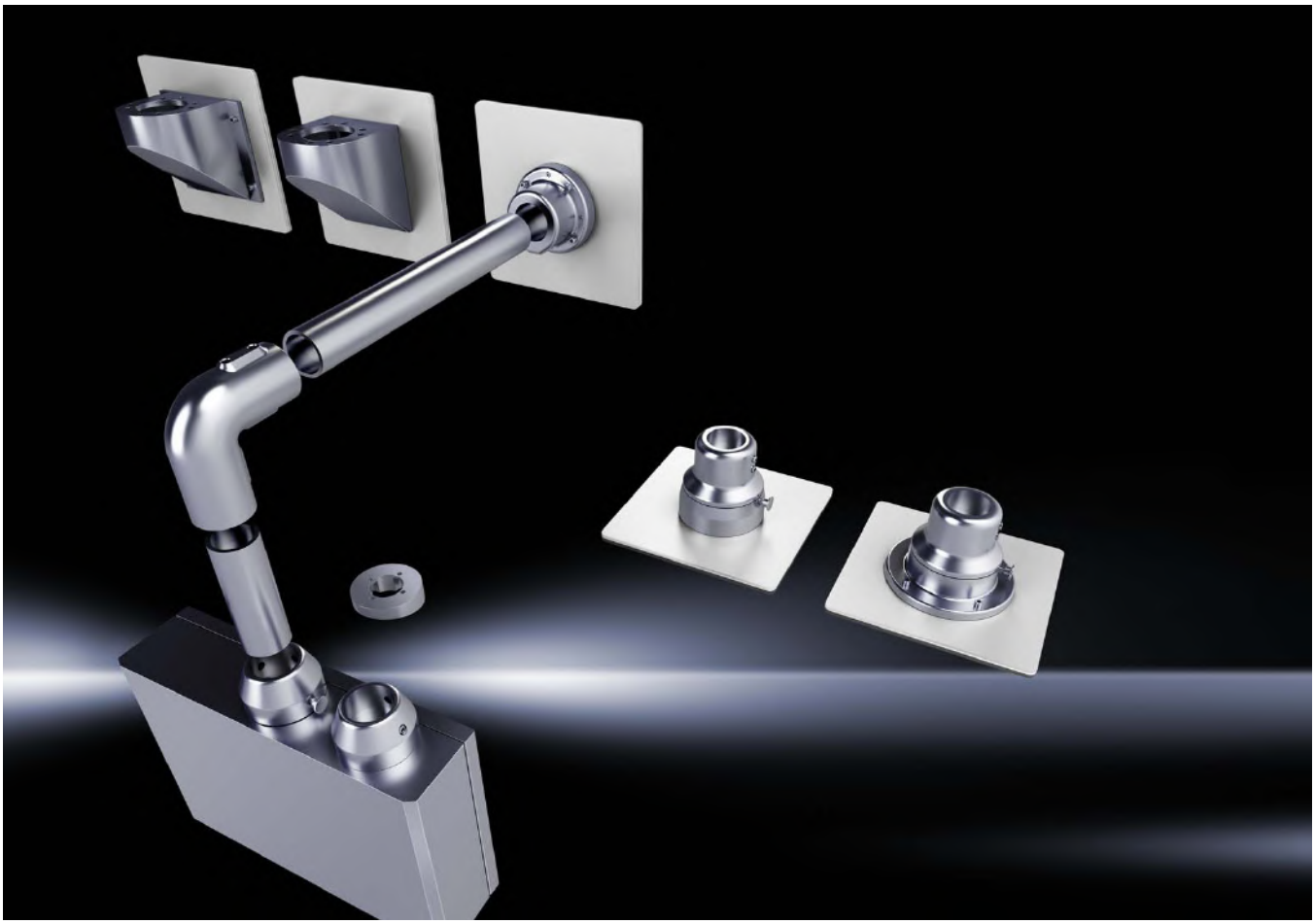
Material:
– Stainless steel

Surface finish:
– Brushed, grain size 400 (support section and wall console only)

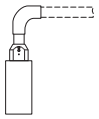
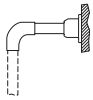
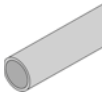
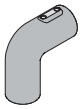
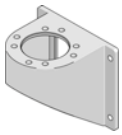
Protection category IP to IEC 60 529:
– IP 66
– IP X9

Supply includes:
– Support section, stainless steel



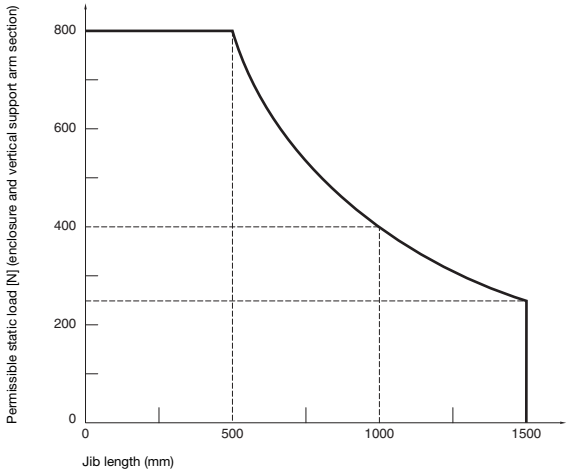


Support arm system CP 40, stainless steel

		Rotating/tilting	Rigid	Length mm	Weight kg	Material	Enclosure section	Desk section	Wall section
									
							Model No.		
	Tilting adaptor 10° CP 40, stainless steel	–	■	–	0.7	1.4305 (AISI 303)	**6664.100**	–	–
	Attachment CP 40, stainless steel	–	■	–	1.3	1.4305 (AISI 303)	**6664.500**	–	–
	Coupling CP 40, stainless steel	■	–	–	1.1	1.4305 (AISI 303)	**6664.000**	–	–
	**Support section CP 40, stainless steel**	–	■	500 1000	2.0 3.9	1.4301 (AISI 304)	**6660.050** **6660.010**		
	**Angle piece 90° CP 40, stainless steel**	–	■	–	1.3	1.4301 (AISI 304)	**6664.300**	–	**6664.300**
	Wall/base mounting bracket, rigid, CP 40, stainless steel	–	■	–	1.7	1.430 (AISI 303)	–	–	**6663.000**
	Wall/base mounting bracket, rotating, CP 40, stainless steel								
	Rear, thread M8 Front, hole Ø 9 mm	■	–	–	3.9 4.5	1.430 (AISI 303)	–	–	**6663.500** **6663.400**
	**Wall console CP 40, stainless steel**								
	Rear, thread M8 Front, hole Ø 9 mm	–	■	–	1.5 1.8	1.4301 (AISI 304)	–	–	**6665.000** **6665.500**

Load information

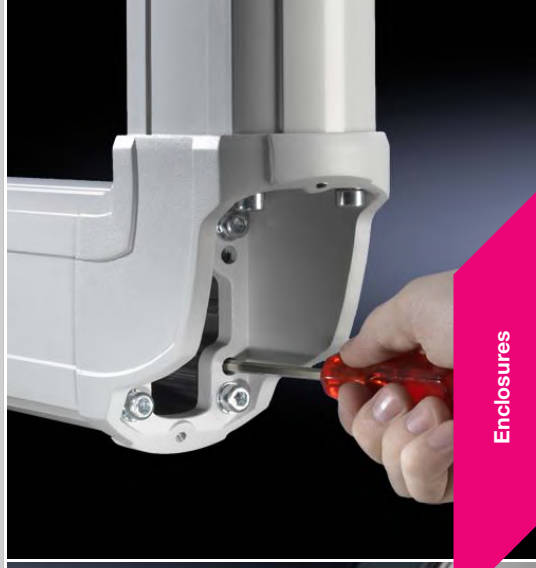
Permissible load depending on system configuration



Support arm system CP 60/120/180

Uniform engineering

- All load levels up to 1800 N
- One system
- Simple system replacement in the vertical axis to cut costs and weight
- Consistent combination options



Multi-functional assembly

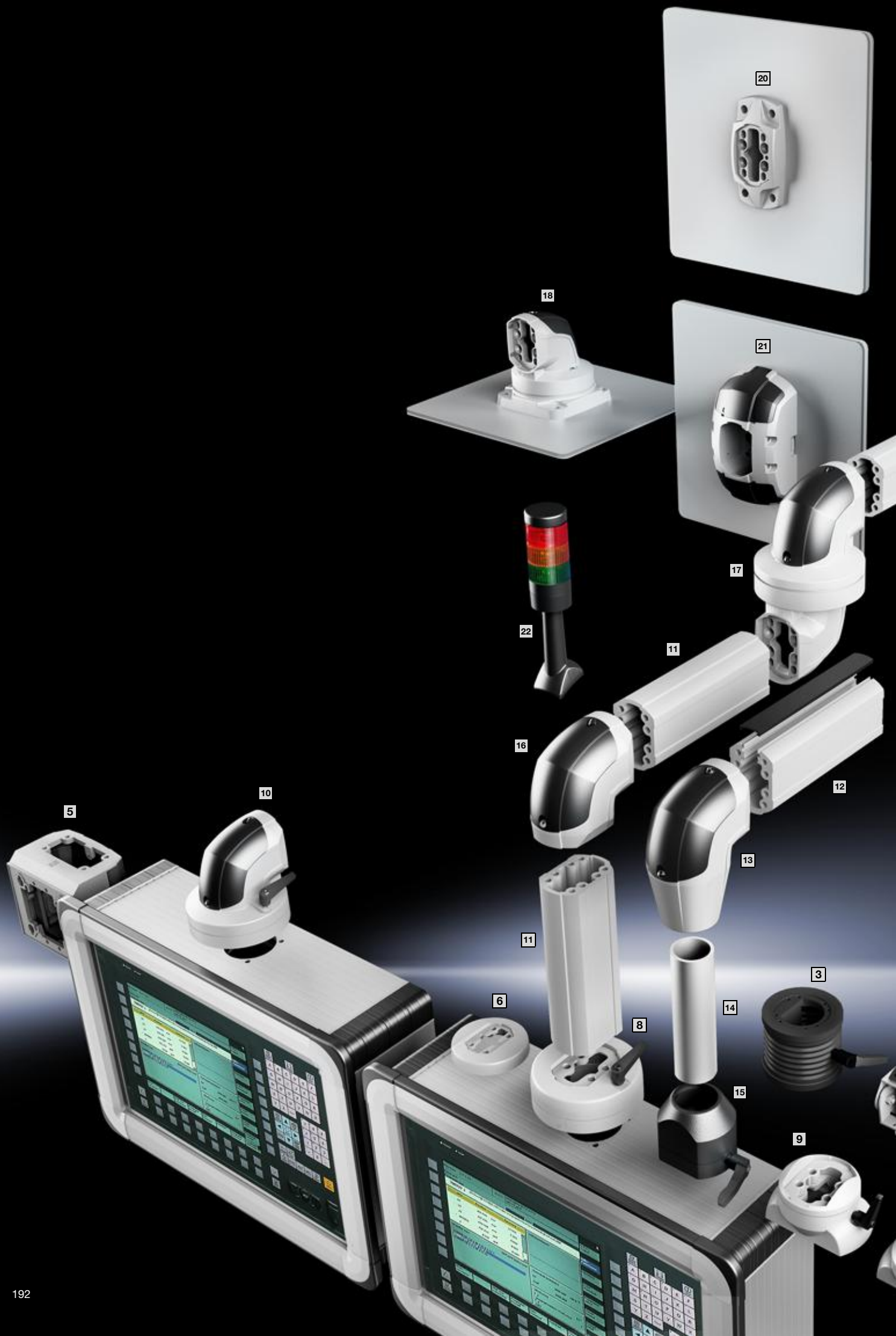
- Uniform adjustment principle, even retrospectively without dismantling
- Perfect limitation of rotation ranges
- Simple, one-person installation
- Sections are easily cut to the required length

Efficient cable management

- Cross-section sufficient for large connectors
- Supports simple separation between data and power cables
- Flexible cable entry and routing options
- Automatic, consistent potential equalisation of all support arm components
- Open support section for easy upgrade and servicing access

Consistent protection category

- Consistent protection category of all components, even with adaptations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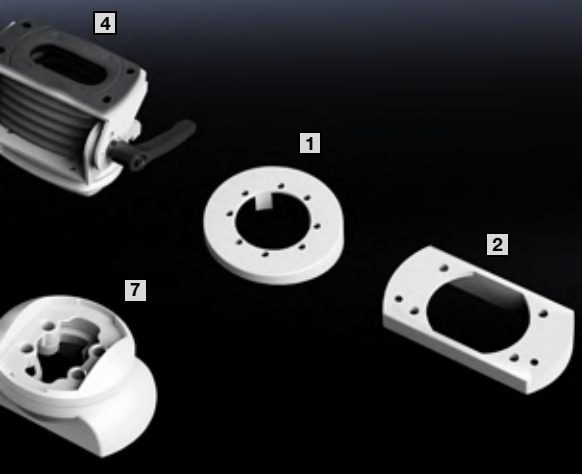
Support arm system CP 60

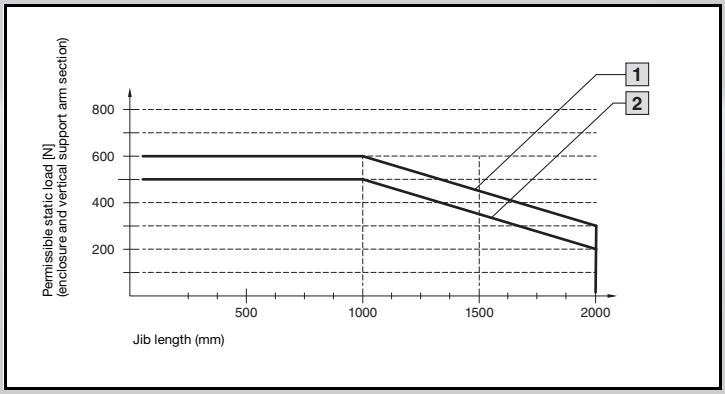


Component overview

1 Tilting adaptor 10° for support arm connection Ø 130 mm (6206.400)
2 Tilting adaptor 10° for support arm connection ▭ 120 x 65 mm (6206.440)
3 Tilting adaptor +/-45° for support arm connection Ø 130 mm (6206.420)
4 Tilting adaptor +100°/-60° for support arm connection ▭ 120 x 65 mm (6206.460)
5 Connection console VESA 75/100 for support arm connection ▭ 120 x 65 mm (6206.480)
6 Coupling CP 60 for support arm connection Ø 130 mm (6206.320)
7 Attachment CP 60 for support arm connection ▭ 120 x 65 mm (6206.360)
8 Coupling CP 60 for support arm connection Ø 130 mm (6206.300)
9 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)
10 Angle coupling 90° CP 60 for support arm connection Ø 130 mm (6206.380)
11 Support section CP 60, closed (6206.025, 6206.050, 6206.100, 6206.200)
12 Support section CP 60, open (6206.110)
13 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
14 Support section CP 40, steel (6501.000)
15 Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.050)
16 Angle piece 90° CP 60 (6206.600)
17 Intermediate hinge CP 60 (6206.620)
18 Top-mounted joint CP 60, horizontal outlet (6206.700)
19 Wall-mounted hinge CP 60, horizontal outlet (6206.740)
20 Wall/base mounting bracket CP 60, small (6206.820)
21 Wall/base mounting bracket CP 60, large (6206.800)
22 Mounting component CP 60 for signal pillar (6206.900)

Load information

Permissible load depending on system configuration



1 System configuration without intermediate hinge 6206.620
2 System configuration with intermediate hinge 6206.620

Note:
– Wall/base mounting bracket, small 6206.820 must not be used in conjunction with intermediate hinge 6206.620!
– Intermediate hinge 6206.620 should only be used once per system!

Support arm system CP 60

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Support section CP 60
Attachment to the connection components with 4 self-tapping screws in the screw channel. May be cut to any required length, no thread-tapping required. Closed cable duct with a large cross-section. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section.

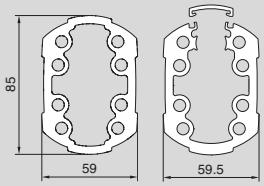
Size:
– External dimensions: 59 x 85 mm

Material:
– Support section: Extruded aluminium section

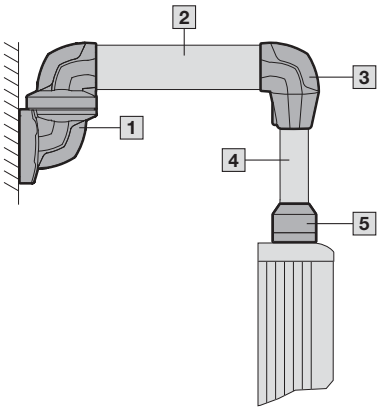
Colour:
– Support section: RAL 7035

Protection category IP to IEC 60 529:
– IP 54

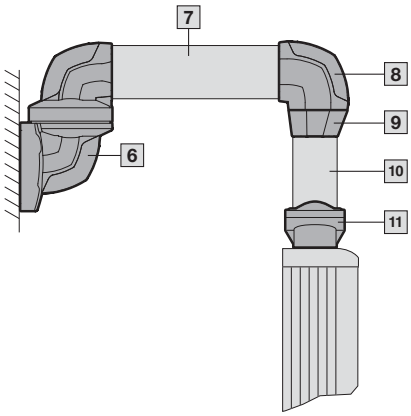
Supply includes:
– Support section



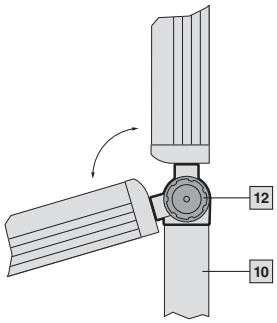
Combination with support arm system CP 40



Combination with support arm system CP 120

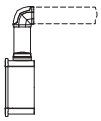
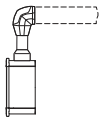
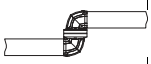
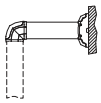
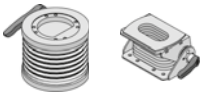
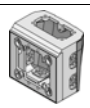
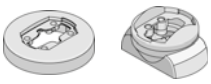
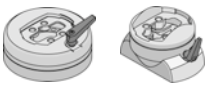
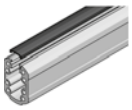
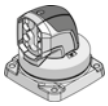
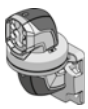


Roof plate with tilt coupler, see page 210



1 Wall-mounted hinge CP 60, horizontal outlet (6206.740)
2 Support section CP 60, 1000 mm (6206.100)
3 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
4 Support section CP 40, steel, 500 mm (6501.000)
5 Coupling CP 40, steel, for support arm connection ▭ 120 x 65 mm (6501.130)
6 Wall-mounted hinge CP 120, horizontal outlet (6212.740)
7 Support section CP 120, 1000 mm (6212.100)
8 Angle piece 90° CP 120 (6212.600)
9 Adaptor for support arm combination CP 120/60 (6212.640)
10 Support section CP 60, 500 mm (6206.050)
11 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)
12 Tilt coupler for support arm system CP 60/6206.350

Support arm system CP 60

	Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section CP 60	Enclosure section CP 60/40	Centre section CP 60	Wall section CP 60
									
						Model No.			
	Tilting adaptor 10° for support arm connection								
	Ø 130 mm	–	■	–	0.6	7035	**6206.400**	–	–	–
	▭ 120 x 65 mm				0.4		**6206.440**	–	–	–
	**Tilting adaptor +/-45°, tilting adaptor +100°/-60° for support arm connection**									see page 209
	Ø 130 mm				1.2	7024	**6206.420**	–	–	–
	▭ 120 x 65 mm	■	–	–	0.8	7035/ 7024	**6206.460**	**6206.460**	–	–
	▭ 90 x 71 mm				0.8		–	**6206.460**	–	–
	**Connection console VESA 75/100 for support arm connection**									see page 207
	▭ 120 x 65 mm	–	■	–	1.1	7035/ 7024	**6206.480**	–	–	–
	**Attachment CP 60/40 for support arm connection**									
	Ø 130 mm				0.7	7035	**6206.320**	–	–	–
	▭ 120 x 65 mm	–	■	–	1.0	7035	**6206.360**	–	–	–
	▭ 90 x 71 mm				1.0	7024	–	**6501.070**	–	–
	**Coupling CP 60/40 for support arm connection**									
	Ø 130 mm				2.1	7035	**6206.300**	–	–	–
	▭ 120 x 65 mm	■	–	–	1.2	7035	**6206.340**	**6501.130**	–	–
	▭ 90 x 71 mm				1.1	7024	–	**6501.050**	–	–
	Angle coupling 90° CP 60/40 for support arm connection									
	Ø 130 mm	■	–	–	1.8	7035/ 7024	**6206.380**	–	–	–
	Support section CP 60/40						CP 60	CP 40[1)]	CP 60	CP 60
	Closed	–	–	250 500 1000 2000	1.25 2.5 5.0 10.0	7035	**6206.025** **6206.050** **6206.100** **6206.200**	– **6501.000** **6501.020** –	**6206.025** **6206.050** **6206.100** **6206.200**	**6206.025** **6206.050** **6206.100** **6206.200**
	Open	–	–	1000	5.6	7035/ 7024	**6206.110**	–	–	–
	Angle adaptor 90° for support arm combination CP 60/40									
		–	■	–	1.0	7035/ 7024	–	**6206.640**	–	–
	Angle piece 90° CP 60									
		–	■	–	0.5	7035/ 7024	**6206.600**	–	–	**6206.600**
	Intermediate hinge CP 60									
		■	–	–	2.2	7035/ 7024	–	–	**6206.620**	–
	**Top-mounted joint CP 60**									
	Horizontal outlet	■	–	–	2.2	7035/ 7024	–	–	–	**6206.700**
	**Wall-mounted hinge CP 60**									
	Horizontal outlet	■	–	–	2.85	7035/ 7024	–	–	–	**6206.740**
	Wall/base mounting bracket CP 60, small									
		–	■	–	0.35	7035	–	–	–	**6206.820**
	Wall/base mounting bracket CP 60, large									
		–	■	–	1.4	7035/ 7024	–	–	–	**6206.800**
	Accessories									
	Mounting component for signal pillar, see page 1125/Adaptor CP 120/60 Ø 130 mm to ▭ 120 x 65 mm 6212.500, see page 199									

[1)] Weight information and diagrams for CP 40, see page 187

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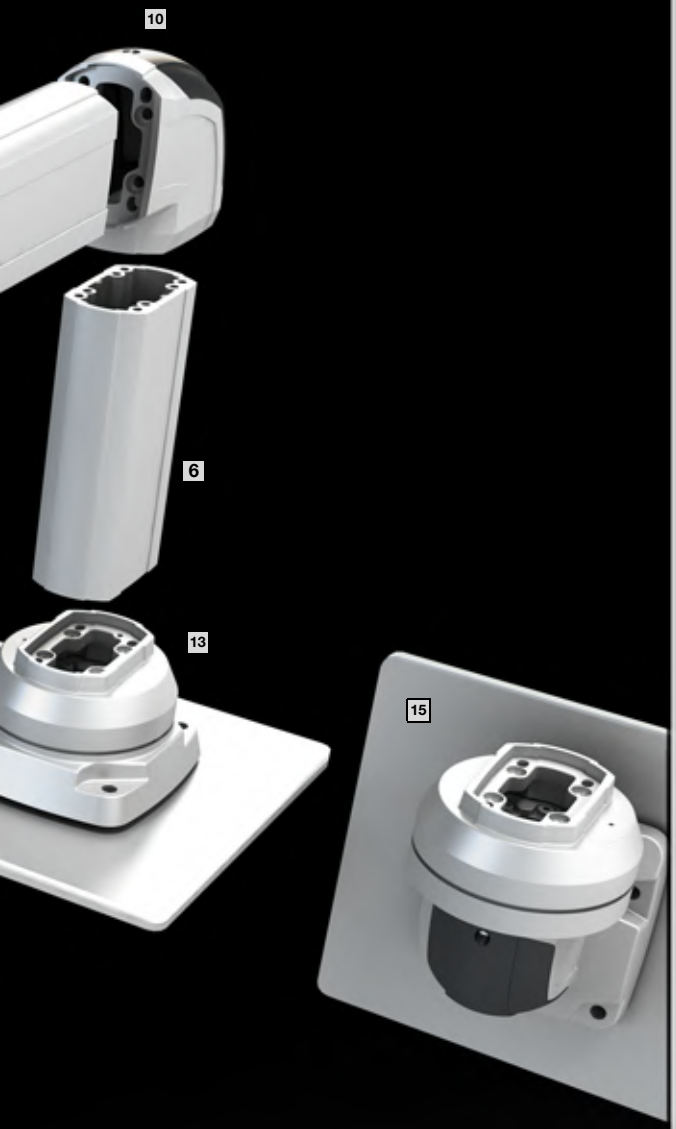
Support arm system CP 120

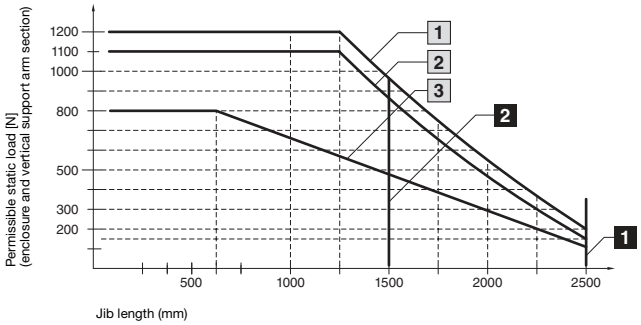


Component overview

1 Adaptor CP 120 from support arm connection Ø 130 mm to ▭ 120 x 65 mm (6212.500)
2 Attachment CP 120 for support arm connection Ø 130 mm (6212.320)
3 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
4 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)
5 Angle coupling 90° CP 120 for support arm connection Ø 130 mm (6212.380)
6 Support section CP 120, closed (6212.025, 6212.050, 6212.100, 6212.200)
7 Support section CP 120, open (6212.150, 6212.110, 6212.210)
8 Support section CP 60, closed (6206.025, 6206.050, 6206.100, 6206.200)
9 Adaptor for support arm combination CP 120/60 (6212.640)
10 Angle piece 90° CP 120 (6212.600)
11 Intermediate hinge CP 120, without height offset (6212.680)
12 Intermediate hinge CP 120, with height offset (6212.620)
13 Top-mounted joint CP 120, vertical outlet (6212.720)
14 Top-mounted joint CP 120, horizontal outlet (6212.700)
15 Wall-mounted hinge CP 120, vertical outlet (6212.760)
16 Wall-mounted hinge CP 120, horizontal outlet, without height offset (6212.780)
17 Wall-mounted hinge CP 120, horizontal outlet, with height offset (6212.740)
18 Wall/base mounting bracket CP 120, small (6212.820)
19 Wall/base mounting bracket CP 120, large (6212.800)
20 Mounting component CP 120/180 for signal pillar (6212.900)

Load information

Permissible load depending on system configuration



1 System configuration without intermediate hinge 6212.620/.680, with closed or open support section
2 System configuration with intermediate hinge 6212.620/.680 and closed support section
3 System configuration with intermediate hinge 6212.620/.680 and open support section

1 Maximum system length 2500 mm for systems with horizontal outlet at the system start

2 Maximum system length 1500 mm for systems with vertical outlet at the system start. The overall height at the vertical system start must not exceed 500 mm.

Note:
– Wall/base mounting bracket, small 6212.820 must not be used in conjunction with intermediate hinge 6212.620/.680!
– Intermediate hinge 6212.620/.680 should only be used once per system!

Support arm system CP 120

Comfort Panel P. 172 **Optipanel** P. 174 **Operating housings AX with handle strips** P. 178 **Operating housing AX for desktop TFT** P. 180

Support section CP 120
Attachment to the connection components with 4 self-tapping screws in the screw channel. May be cut to any required length, no thread-tapping required. Closed cable duct with a large cross-section. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section.

X-shaped profiling for greater load capacity, large cable routing channels. Upper channel adequate for cables with large connectors (e.g. DVI or VGA) and available/usable throughout the entire system.

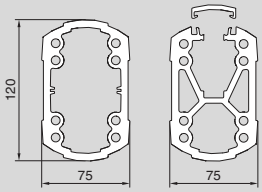
Size:
– External dimensions: 75 x 120 mm

Material:
– Support section: Extruded aluminium section

Colour:
– Support section: RAL 7035

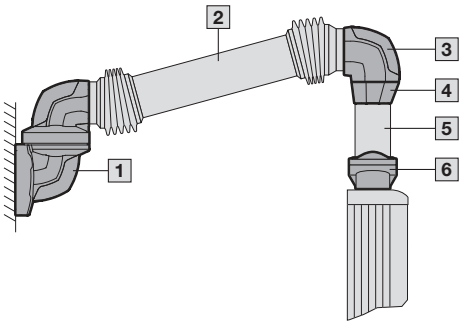
Protection category IP to IEC 60 529:
– IP 54

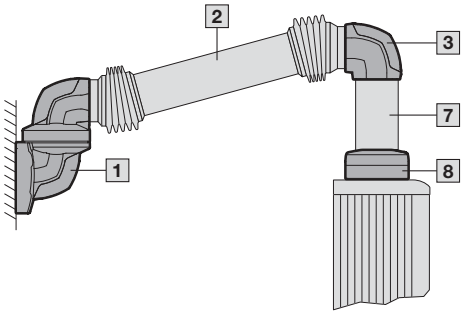
Supply includes:
– Support section

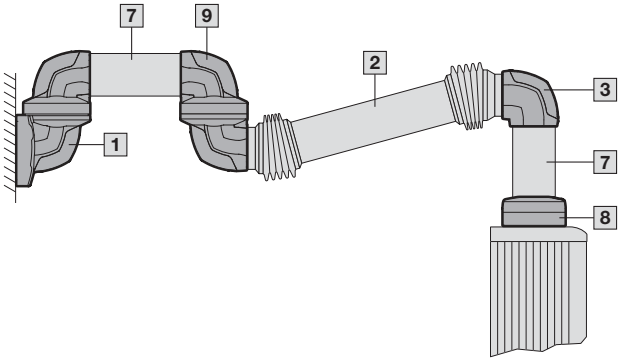


Combination with support section, height adjustable

Note:
When using an intermediate hinge, the height-adjustable support section should always be inserted in the closest horizontal position to the enclosure.

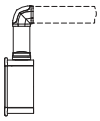
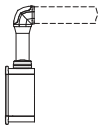
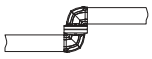
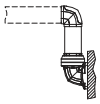
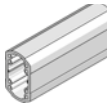
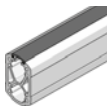
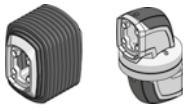
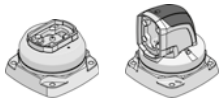
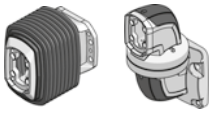




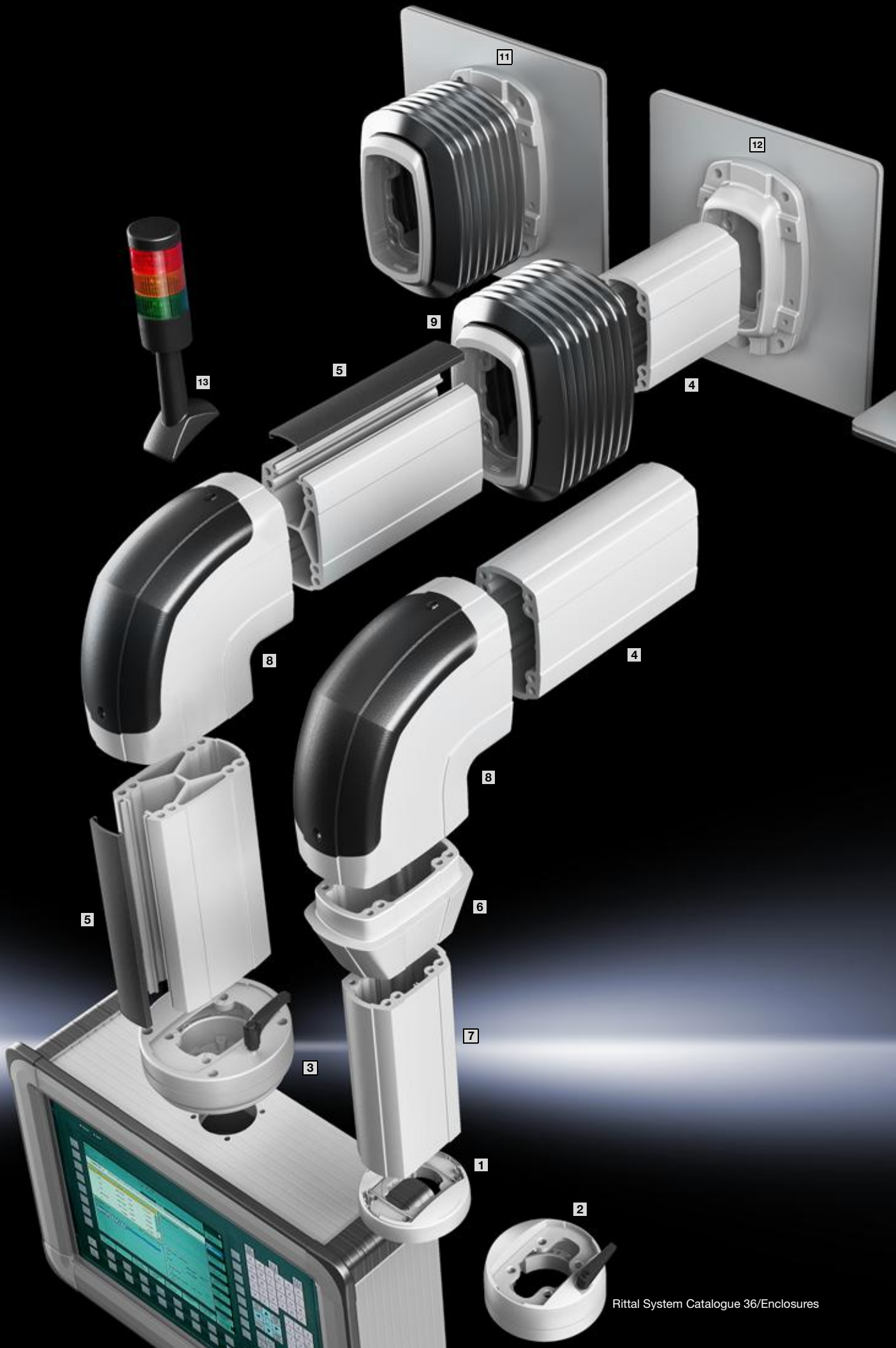


1 Wall-mounted hinge CP 120, horizontal outlet (6212.740)
2 Support section, height-adjustable (6212.120), see page 206
3 Angle piece 90° CP 120 (6212.600)
4 Adaptor for support arm combination CP 120/60 (6212.640)
5 Support section CP 60, L = 500 mm (6206.050)
6 Coupling CP 60 for support arm connection □ 120 x 65 mm (6206.340)
7 Support section CP 120, closed, L = 500 mm (6212.050)
8 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
9 Intermediate hinge CP 120 (6212.620)

Support arm system CP 120

	Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section CP 120	Enclosure section CP 120/60	Centre section CP 120	Wall section CP 120
									
						Model No.			
Adaptor CP 120/60 from support arm connection Ø 130 mm to ▭ 120 x 65 mm									
	–	■	–	0.5	7035	**6212.500**	**6212.500**	**–**	**–**
Attachment CP 120/60 for support arm connection									
Ø 130 mm	–	■	–	0.7	7035	**6212.320**	**6206.320**	**–**	**–**
▭ 120 x 65 mm	–	■	–	0.7	7035	**–**	**6206.360**	**–**	**–**
Coupling CP 120/60 for support arm connection									
Ø 130 mm	■	–	–	2.0	7035	**6212.300**	**6206.300**	**–**	**–**
▭ 120 x 65 mm						**–**	**6206.340**	**–**	**–**
Angle coupling 90° CP 120 for support arm connection									
Ø 130 mm	■	–	–	2.1	7035/ 7024	**6212.380**	**–**	**–**	**–**
Support section CP 120/60						CP 120	CP 60[1)]	CP 120	CP 120
 Closed	– – – –	– – – –	250 500 1000 2000	2.0 3.9 7.8 15.6	7035	**6212.025** **6212.050** **6212.100** **6212.200**	**6206.025** **6206.050** **6206.100** **6206.200**	**6212.025** **6212.050** **6212.100** **6212.200**	**6212.025** **6212.050** **6212.100** **6212.200**
 Open	– – –	– – –	500 1000 2000	4.6 9.2 18.4	7035/ 7024	**6212.150** **6212.110** **6212.210**	**–** **–** **–**	**6212.150** **6212.110** **6212.210**	**6212.150** **6212.110** **6212.210**
Adaptor for support arm combination CP 120/60									
	–	■	–	0.7	7035	**–**	**6212.640**	**–**	**–**
Angle piece 90° CP 120									
	–	■	–	1.1	7035/ 7024	**6212.600**	**–**	**–**	**6212.600**
Intermediate hinge CP 120									
 Without height offset	■	–	–	4.0	7035/ 7024	**–**	**–**	**6212.680**	**–**
With height offset	■	–	–	4.4	7035/ 7024	**–**	**–**	**6212.620**	**–**
Top-mounted joint CP 120									
 Vertical outlet	■	–	–	3.8	7035	**–**	**–**	**–**	**6212.720**
Horizontal outlet	■	–	–	4.3	7035/ 7024	**–**	**–**	**–**	**6212.700**
Wall-mounted hinge CP 120, vertical outlet									
	■	–	–	5.5	7035/ 7024	**–**	**–**	**–**	**6212.760**
Wall-mounted hinge CP 120, horizontal outlet									
 Without height offset	■	–	–	8.3	7035/ 7024	**–**	**–**	**–**	**6212.780**
With height offset	■	–	–	6.1	7035/ 7024	**–**	**–**	**–**	**6212.740**
Wall/base mounting bracket CP 120, small									
	–	■	–	0.5	7035	**–**	**–**	**–**	**6212.820**
Wall/base mounting bracket CP 120, large									
	–	■	–	2.5	7035/ 7024	**–**	**–**	**–**	**6212.800**
Accessories									
Mounting component for signal pillar, see page 1125/ Tilting adaptor for support arm connection Ø 130 mm and ▭ 120 x 65 mm, see page 209									

[1)] Weight information and diagrams for CP 60, see page 195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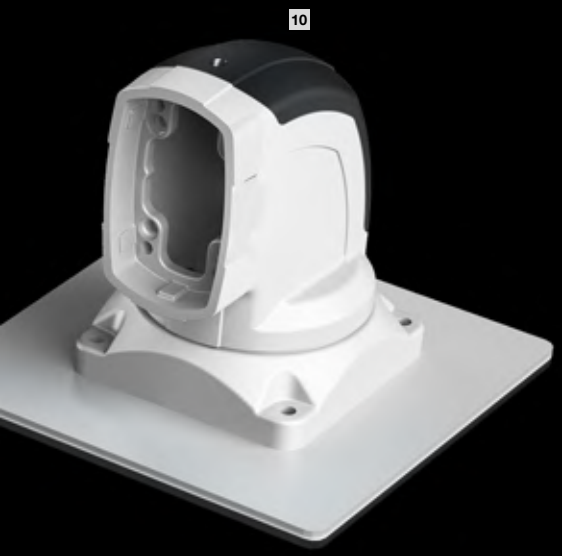
Support arm system CP 180

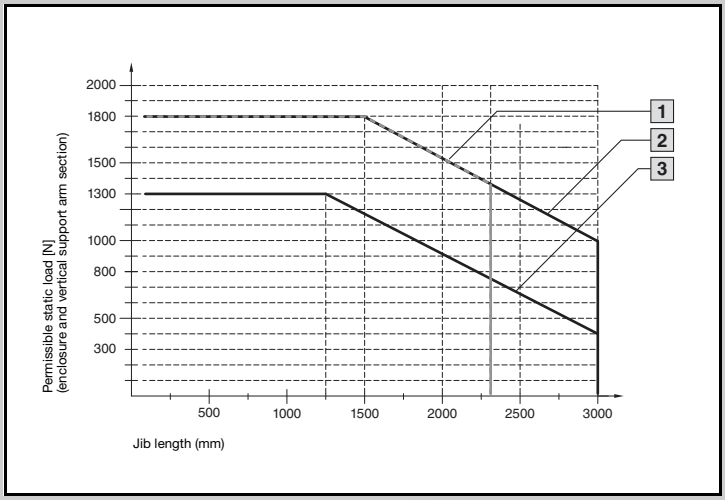


Component overview

1 Attachment CP 120 for support arm connection Ø 130 mm (6212.320)
2 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
3 Coupling CP 180 for support arm connection Ø 130 mm (6218.300)
4 Support section CPS 180, closed (6218.050, 6218.100, 6218.200)
5 Support section CP 180, open (6218.150, 6218.110, 6218.210)
6 Adaptor for support arm combination, CP 180/120 (6218.640)
7 Support section CP 120, closed (6212.025, 6212.050, 6212.100, 6212.200)
8 Angle piece 90° CP 180 (6218.600)
9 Intermediate hinge CP 180 (6218.620)
10 Top-mounted joint CP 180, horizontal outlet (6218.700)
11 Wall-mounted hinge CP 180, horizontal outlet (6218.740)
12 Wall/base mounting bracket CP 180, small (6218.820)
13 Mounting component CP 120/180 for signal pillar (6212.900)

Load information

Permissible load depending on system configuration



1 System configuration without intermediate hinge 6218.620, with closed or open support section
2 System configuration with intermediate hinge 6218.620 and closed support section
3 System configuration with intermediate hinge 6218.620 and open support section

Note:
– Intermediate hinge 6218.620 should only be used once per system!
– Where possible, Rittal recommends that the support section between components 6218.700, 6218.740, 6218.820 and intermediate hinge 6218.620 should be of a closed design

Support arm system CP 180

Comfort Panel P. 172 **Optipanel** P. 174 **Operating housings AX with handle strips** P. 178 **Operating housing AX for desktop TFT** P. 180

Support section CP 180
Attachment to the connection components with 4 self-tapping screws in the screw channel. May be cut to any required length, no thread-tapping required. Closed cable duct with a large cross-section. Open cable duct for easy servicing access and for pre-assembled cables with connectors; lockable via cover section.

X-shaped profiling for greater load capacity, large cable routing channels. Upper channel adequate for cables with large connectors (e.g. DVI or VGA) and available/usable throughout the entire system.

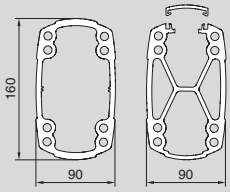
Size:
– External dimensions: 90 x 160 mm

Material:
– Support section: Extruded aluminium section

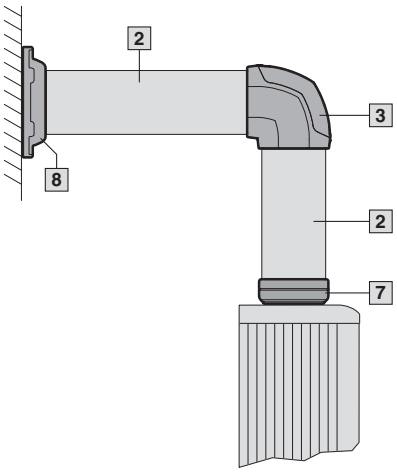
Colour:
– Support section: RAL 7035

Protection category IP to IEC 60 529:
– IP 54

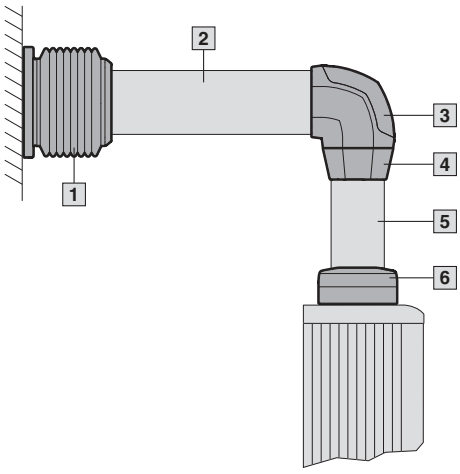
Supply includes:
– Support section



Support arm system CP 180

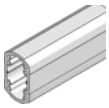


Combination with support arm system CP 120

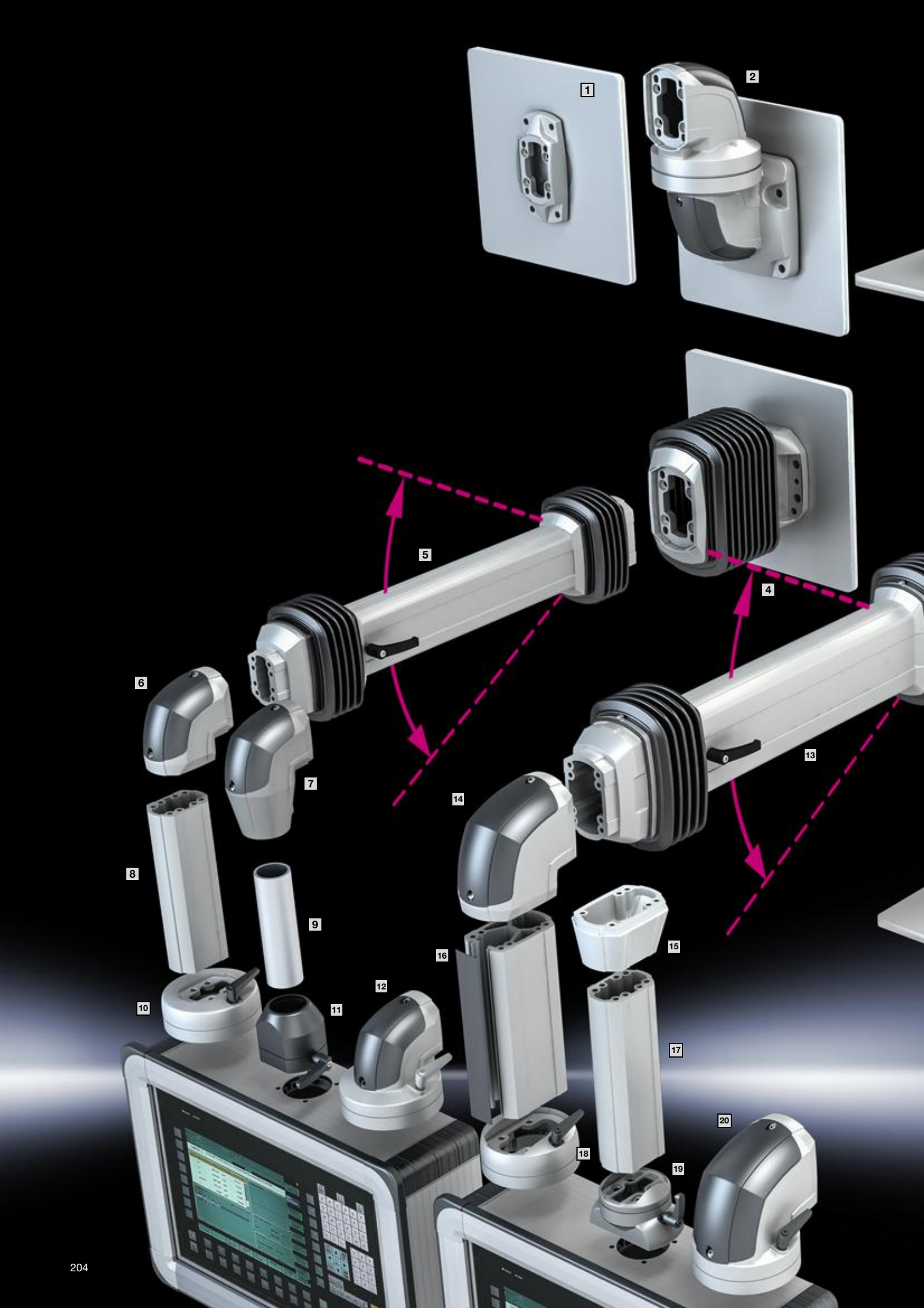


1 Wall-mounted hinge CP 180, horizontal outlet (6218.740)
2 Support section CP 180, closed, 1000 mm (6218.100)
3 Angle piece 90° CP 180 (6218.600)
4 Adaptor for support arm combination CP 180/120 (6218.640)
5 Support section CP 120, closed, L = 500 mm (6212.050)
6 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
7 Coupling CP 180 for support arm connection Ø 130 mm (6218.300)
8 Wall/base mounting bracket CP 180, small (6218.820)

Support arm system CP 180

		Rotating/tilting	Rigid	Length mm	Weight kg	Colour RAL	Enclosure section CP 180/120	Centre section CP 180	Wall section CP 180
							Model No.		
	Adaptor from support arm connection Ø 180 mm to Ø 130 mm								
		–	■	–	0.6	7035	**6212.520**	**–**	**–**
	Attachment CP 120 for support arm connection Ø 130 mm								
		–	■	–	0.7	7035	**6212.320**	**–**	**–**
	Coupling CP 180/120 for support arm connection Ø 130 mm								
		■	–	–	5.3	7035	**6218.300**	**–**	**–**
		■	–	–	2.0		**6212.300**	**–**	**–**
	**Support section CP 180/120**						CP 120[1)]	CP 180	CP 180
	Closed	– – – –	– – – –	250 500 1000 2000	2.6 5.2 10.5 21	7035	**6212.025** **6212.050** **6212.100** **6212.200**	**–** **6218.050** **6218.100** **6218.200**	**–** **6218.050** **6218.100** **6218.200**
	Open	– – –	– – –	500 1000 2000	5.8 11.6 23.2	7035/ 7024	**6212.150** **6212.110** **6212.210**	**6218.150** **6218.110** **6218.210**	**6218.150** **6218.110** **6218.210**
	Adaptor for support arm combination CP 180/120								
		–	■	–	1.5	7035	**6218.640**	**–**	**–**
	Angle piece 90° CP 180								
		–	■	–	3.6	7035/ 7024	**6218.600**	**–**	**6218.600**
	Intermediate hinge CP 180								
		■	–	–	10.3	7035/ 7024	**–**	**6218.620**	**–**
	Top-mounted joint CP 180								
	Horizontal outlet	■	–	–	18.0	7035/ 7024	**–**	**–**	**6218.700**
	Wall-mounted hinge CP 180								
	Horizontal outlet	■	–	–	13.0	7035/ 7024	**–**	**–**	**6218.740**
	Wall/base mounting bracket CP 180, small								
		–	■	–	5.0	7035	**–**	**–**	**6218.820**
	Mounting component CP 120/180 for signal pillar								
	Only for 6218.600, 6218.700, see page 1125	–	■	–	0.1	7024	**6212.900**	**–**	**6212.900**
	Accessories								
	Tilting adaptor for support arm connection Ø 130 mm and ▭ 120 x 65 mm, see page 209								

[1)] Weight information and diagrams for CP 120, see page 199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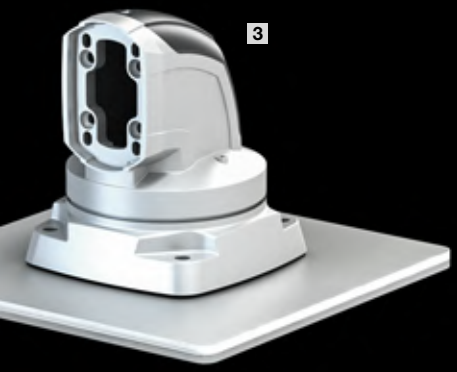


Support arm system CP
Support arm, height-adjustable

Component overview

1 Wall/base mounting bracket CP 120, small (6212.820)
2 Wall-mounted hinge CP 120, horizontal outlet, with height offset (6212.740)
3 Top-mounted joint CP 120, horizontal outlet (6212.700)
4 Wall-mounted hinge CP 120, horizontal outlet, without height offset (6212.780)
5 Support section, height-adjustable CP 120/CP 60 (6212.060, 6212.065)
6 Angle piece 90° CP 60 (6206.600)
7 Angle adaptor 90° for support arm combination CP 60/40 (6206.640)
8 Support section CP 60 (6206.110, 6206.025, 6206.050, 6206.100, 6206.200)
9 Support section CP 40, steel (6501.000, 6501.020)
10 Coupling CP 60 for support arm connection Ø 130 mm (6206.300)
11 Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm (6501.050)
12 Angle coupling 90° CP 60 for support arm connection Ø 130 mm (6206.380)
13 Support section, height-adjustable CP 120/CP 120 (6212.120)
14 Angle piece 90° CP 120 (6212.600)
15 Adaptor for support arm combination CP 120/60 (6212.640)
16 Support section CP 120, open (6212.150, 6212.110, 6212.210)
17 Support section CP 60 (6206.110, 6206.025, 6206.050, 6206.100, 6206.200)
18 Coupling CP 120 for support arm connection Ø 130 mm (6212.300)
19 Coupling CP 60 for support arm connection ▭ 120 x 65 mm (6206.340)
20 Angle coupling 90° CP 120 for support arm connection Ø 130 mm (6212.380)
21 Angle piece 90° CP 120 (6212.600)
22 Support section CP 120, closed (6212.025, 6212.050, 6212.100, 6212.200)
23 Top-mounted joint CP 120, vertical outlet (6212.720)

Note:
In combination with support support section, height adjustable observe:
– When using an intermediate hinge, the height-adjustable support section should always be inserted in the closest horizontal position to the enclosure.

Support section, height-adjustable

Now even more ergonomic, thanks to
- Adjustment range for tall and short operators, as well as seated and stand-up workstations: 6212.060/120: 600 mm ± 300 mm 6212.065: 950 mm ± 475 mm
- Support arm holds securely in any position
- Additional fixing with clamping lever if required
- Precise coordination to the suspended load via an adjusting screw at the front of the support section
- Adjusting screw can be accessed without dismantling any components
- Removable side panel for easy access to cable routing
- Tilt angle of the mounted enclosure is identical in every height position
- Cables with connectors such as DVI, VGA are easily inserted
- Broad weight range from 4 to 60 kg with just two systems

Maximum cross-section for cable entry:
- 17 x 41 mm for CP 6212.060/.065
- 17 x 59 mm for CP 6212.120

Colour:
- RAL 7035/7024

Protection category IP to IEC 60 529:
- IP 54

Supply includes:
- Assembly parts

Note:
For combination with support section, height-adjustable, please note:
- When using an intermediate hinge, the height-adjustable support section should always be inserted in the closest horizontal position to the enclosure

Wall/ machine side	Enclosure side	Overall length mm	Weight range kg[1)]	Model No.
CP 120	CP 60	741	4 – 30	**6212.060**
CP 120	CP 60	1050	4 – 17	**6212.065**
CP 120	CP 120	790	10 – 60	**6212.120**

[1)] For configured enclosure and vertical support section

Cable tray

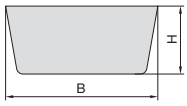
CP 6212.060/.065
30 x 10 mm (W x H)

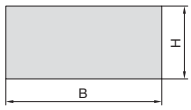
CP 6212.120
43 x 21 mm (W x H)

Maximum connector dimensions

CP 6212.060/.065
41 x 17 mm (W x H)

CP 6212.120
59 x 17 mm (W x H)





B = Width

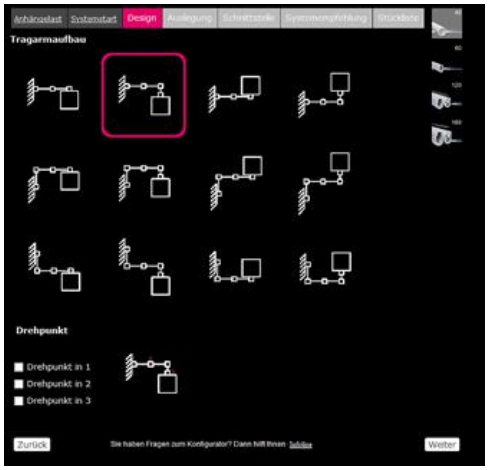
Support arm configurator

for CP 40/60/120/180 and support section, height-adjustable

The tool determines the perfect system for your application from key user-specific parameters such as the jib length, enclosure weight or required cable cross-sections.

Benefits:
- Individual assembly tailored to the requirements of the application
- Built-in consistency check
- The outcome is a plausibility-checked parts list
- Detailed cutting dimensions for the support sections
- Free online configurator
- Simple, systematic menu prompting
- Seamless system solution
- Supply of CAD data for the configured system

Note:
- Configure online at www.rittal.com/configurators



Connection console VESA 75/100

For rear connection of
– Slimline operating housings
– Commercially available TFTs
– Industrial PCs
with VESA 75/100 connection

Connection to Rittal support arm systems
– CP 40
– CP 60
– CP 120 via adaptor from support arm connection Ø 130 mm to ▭ 120 x 65 mm

Benefits:
– Fast, simple one-person assembly using machined keyholes
– More space for installation and servicing
– Cables may be routed to devices outside and inside the console
– Removable cover for simple cable routing and access to interior device connections
– Integral cable clamping facilities
– Cover with captive screws

Material:
– Die-cast zinc

Colour:
– Connection console: RAL 7035
– Cover: RAL 7024

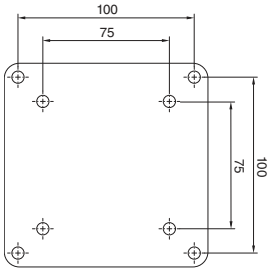
Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Connection console VESA
– Seals
– Cable ties for cable clamping
– Assembly parts

Weight kg	**Model No.**
1.1	**6206.480**

Also required:
– Attachment CP 60 for support arm connection ▭ 120 x 65 mm, 6206.360
– Coupling CP 60 for support arm connection ▭ 120 x 65 mm, 6206.340
– Tilting adaptor 10° for support arm connection ▭ 120 x 65 mm, 6206.440
– Coupling CP 40 for support arm connection ▭ 120 x 65 mm, 6501.130
– Tilting adaptor +/-45° for support arm connection ▭ 120 x 65 mm, 6206.460
– Adaptor from support arm connection Ø 130 mm to ▭ 120 x 65 mm, 6212. 500

VESA connection hole pattern



Connection console

For rear connection of slimline operating housings. Removable lid for simple cable entry.

Connection to Rittal support arm systems
– CP 40
– CP 60
– CP 120 via adaptor from support arm connection Ø 130 mm to ▭ 120 x 65 mm

Material:
– Cast aluminium

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Connection console
– Seals
– Assembly parts

Colour	Weight kg	**Model No.**
RAL 7024	0.7	**6206.490**

Also required:
– Coupling CP 40 for support arm connection ▭ 120 x 65 mm, 6501.130
– Attachment CP 60 for support arm connection ▭ 120 x 65 mm, 6206.360
– Coupling CP 60 for support arm connection ▭ 120 x 65 mm, 6206.340

Adaptor

for Siemens Pro-Panel

For the external mounting of Siemens Simatic
– MP 377 Pro
– Thin Client 15″ Pro
– Flat-Panel Monitor 15″, 19″ Pro
– HMI IPC477C Pro
– ThinClient Pro

Connection to support arm systems
– CP 40, steel
– CP 60/120 with support arm connection ▭ 120 x 65 mm

Material:
– Aluminium

Colour:
– RAL 7035

Supply includes:
– Adaptor
– Seals
– Assembly parts

Weight kg	**Model No.**
0.3	**6206.500**

Connection plates

with reinforcement plate

For easy location of the command panel onto the support arm or pedestal. More space for cable entry.

For mounting command panels
– Comfort Panel from a front panel width of 247 mm and installation depth of 152 mm
– Optipanel from a front panel width of 220 mm and installation depth of 150 mm
– Sheet steel from 135 mm installation depth

For mounting on support arm system components
– Attachment CP 60/120 for support arm connection Ø 130 mm, 6206.320, 6212.320
– Coupling CP 60/120 for support arm connection Ø 130 mm, 6206.300, 6212.300
– Angle coupling 90° CP 60/120 for support arm connection Ø 130 mm, CP 6206.380, 6212.380
– Tilting adaptor 10° CP 60/120 for support arm connection Ø 130 mm, 6206.400
– Tilting adaptor +/-45° CP 60/120 for support arm connection Ø 130 mm, 6206.420
– Coupling CP 180 for support arm connection Ø 130 mm, 6218.300

Material:
– Connection plate: Cast aluminium
– Reinforcement plate: Sheet steel, 6 mm

Colour:
– RAL 7035

Supply includes:
– Connection plates
– Reinforcement plate
– Seals
– Assembly parts

Weight kg	**Model No.**
1.4	**6212.540**

Tilting adaptor +/-45°

for command panels with support arm connection Ø 130 mm

Weight kg	Model No.
1.2	**6206.420**

For mounting between:
– Coupling CP 60, 6206.300
– Coupling CP 120, 6212.300
– Coupling CP 180, 6218.300
or
– Attachment CP 60, 6206.320
– Attachment CP 120, 6212.320
or
– Angle coupling 90°, CP 60, 6206.380
– Angle coupling 90°, CP 120, 6212.380
and the command panel

Tilt angle:
– Adjustable in 7.5° increments

Material:
– Tilting adaptor: Cast aluminium
– Concertina section: Plastic

Colour:
– RAL 7024

Supply includes:
– Tilting adaptor
– Concertina section
– Seals
– Assembly parts

Tilting adaptor +100°/-60°

for command panels with support arm connection ▭ 120 x 65 mm

Weight kg	Model No.
0.8	**6206.460**

For mounting on
– IW worktop, prepared for attachment of Ø 130 mm
– Surfaces
– Attachment/coupling with support arm connection ▭ 120 x 65 mm

To fit enclosures up to 20 kg with support arm connection
– ▭ 90 x 71 mm
– Ø 130 mm
– ▭ 120 x 65 mm
– VESA Standard 75

With cable tube for protected cable entry.

Tilt angle:
– Adjustable in 7.2° increments via clamping lever and may be limited to +100°/–15° using the stop screw supplied loose

Material:
– Tilting adaptor: Sheet steel, spray-finished
– Concertina section: Plastic

Colour:
– Tilting adaptor: RAL 7035
– Concertina section: RAL 7024

Supply includes:
– Tilting adaptor
– Concertina section
– Assembly parts

Tilt coupler

for support arm system CP 60
For mounting two enclosures on a support arm/ stand system.

Benefits:
– Ergonomic adjustment of the screen and keyboard enclosure
– Simple, linear adjustment of the required position via the friction brake

Material:
– Cast aluminium

Surface finish:
– Textured paint

Colour:
– Tilt coupler: RAL 7035
– Covers: RAL 7024

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Tilt coupler
– Seals
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**6206.350**

Accessories:
– Adaptor CP 60 to □ 120 x 65 mm, see page 210

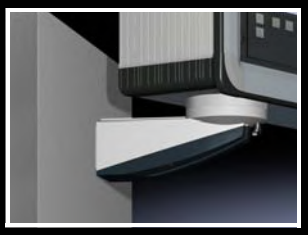
Adaptor for tilt coupler

CP 60 to support arm connection
□ 120 x 65 mm

Material:
– Cast aluminium

Colour:
– RAL 7035

Packs of	**Model No.**
1 pc(s).	**6206.550**



Pivot

with/without jib
For direct, vertically hinged integration into machines and systems.

Applications:
– Enclosure suspended or top-mounted

Benefits:
– With integral rotation range restrictor

Installation options:
– To fit enclosures with support arm connection Ø 130 mm.

Load capacity:
– 700 N

Rotation range/swivel area:
– Approx. 310°
– The range of rotation can be limited by inserting the grub screws provided.

Protection category IP to IEC 60 529:
– IP 54

Jib length mm	Colour	Packs of	**Model No.**
200	RAL 7024/7035	1 pc(s).	**6206.850**
–	RAL 7035	1 pc(s).	**6206.870**

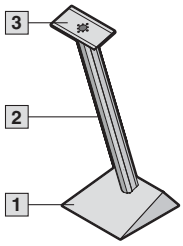
Comfort Panel Page 172 **Optipanel** Page 174 **Compact Panel** Page 181 **Operating housings AX with handle strips** Page 178

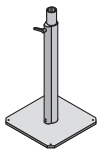
Pedestal, modular, consisting of:
– Pedestal base plate/cross member
– Support section
– Enclosure connection

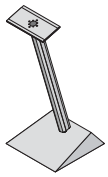
Colour:
– RAL 7035

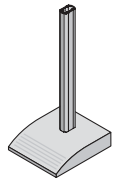
Photo shows a configuration example with equipment not included in the scope of supply

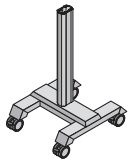
Pedestal, modular











Weight load kg		15	18	35[1]	35[1]	Page
1 Pedestal base plate		**Model No.**				
Pedestal base plate/cross member		**6146.100**	**6106.100**	**6106.200**	**6106.400**	
Dimensions mm	Width	400	400	490	600	
	Height	10	108	100	205	
	Depth	400	400	600	650	
2 Support section		**Model No.**				
Height-adjustable (adjustment range 732 – 1122 mm)		**6146.200**	**–**	**–**	**–**	
Closed, length 1000 mm		–	6206.100	6206.100[1]	6206.100[1]	
3 Enclosure connection		**Model No.**				
Enclosure reinforcement, rigid		–	6106.110	–	–	
Attachment CP 40, steel, for support arm connection ▭ 90 x 71 mm		6501.070	–	–	–	
Coupling CP 40, steel, for support arm connection ▭ 90 x 71 mm		6501.050	–	–	–	
Coupling CP 40, steel, for support arm connection ▭ 120 x 65 mm		6501.130	–	–	–	
Attachment CP 60, for support arm connection Ø 130 mm		–	–	6206.320	6206.320	
Attachment CP 60, for support arm connection ▭ 120 x 65 mm		–	–	6206.360	6206.360	
Coupling CP 60, for support arm connection Ø 130 mm		–	–	6206.300	–	
Coupling CP 60, for support arm connection ▭ 120 x 65 mm		–	–	6206.340	–	
Tilt adjustment		**6146.300**	**–**	**–**	**–**	
Accessories						
Adaptor CP 60 to CP 40		–	6206.650	6206.650	6206.650	214
Twin castors		6148.000	–	6148.000	■	893
Levelling feet		–	–	4612.000	–	892
Base mounting bracket		–	–	6147.000	–	214

[1] Alternative: Support arm system CP 120 may also be used by simply drilling a hole, weight load 50 kg

Stand systems

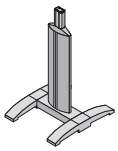
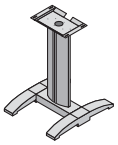
Comfort Panel Page 172 **Optipanel** Page 174 **Compact Panel** Page 181 **Operating housings AX with handle strips** Page 178

The right system to suit any application:
– Different design variants
– Weight load from 15 – 25 kg
– Reliable protection of cable management

Colour:
– RAL 7035

Photo shows a configuration example with equipment not included in the scope of supply

Pedestal, complete

			
Weight load kg	25	25	Page
Model No.	**6106.300**	**6141.200**	
Width mm	600	600	
Height mm	1093	946	
Depth mm	660	660	
Supply includes			
Cross member	■	■	
Base plate	–	–	
Support section	■	–	
Vertical aluminium panel	■	■	
Worktop attachment	–	■	
Accessories			
Adaptor CP 60 to CP 40	6206.650	–	214
Twin castors	6148.000, 7495.000	6148.000, 7495.000	893
Levelling feet	4612.000	4612.000	892
Base mounting bracket	6147.000	6147.000	214
Attachment CP 60, for support arm connection Ø 130 mm	6206.320	–	195
Attachment CP 60, for support arm connection ▭ 120 x 65 mm	6206.360	–	195
Coupling CP 60, for support arm connection Ø 130 mm	6206.300	–	195
Coupling CP 60, for support arm connection ▭ 120 x 65 mm	6206.340	–	195
Worktop without handle[1)]	**–**	**6902.310**	

[1)] W x H x D 950 x 38 x 600 mm

Comfort Panel Page 172 **Optipanel** Page 174 **Compact Panel** Page 181 **Operating housings AX with handle strips** Page 178

The welded alternatives to the pedestal, complete
– Open pedestal for retrospective cable entry with pre-assembled connectors
– Pillar, small: For heavy installed equipment

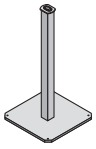
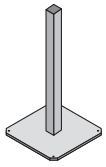
Material:
– Steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Photo shows a configuration example with equipment not included in the scope of supply

Pedestal, open/pillar, small

				
Weight load kg		40	80	Page
		6106.500	**6112.500**	
Supply includes				
Base plate cross section mm	Width	380	500	
	Height	10	12	
	Depth	380	500	
Overall height mm		1095	1150	
Accessories				
Attachment CP 60, for support arm connection Ø 130 mm		6206.320	–	195
Attachment CP 60, for support arm connection ▭ 120 x 65 mm		6206.360	–	195
Coupling CP 60, for support arm connection Ø 130 mm		6206.300	–	195
Coupling CP 60, for support arm connection ▭ 120 x 65 mm		6206.340	–	195
Attachment CP 120, for support arm connection Ø 130 mm		–	6212.320	199
Coupling CP 120, for support arm connection Ø 130 mm		–	6212.300	199
Adaptor CP 60 to CP 40		6206.650	–	214

Accessories

Base mounting bracket

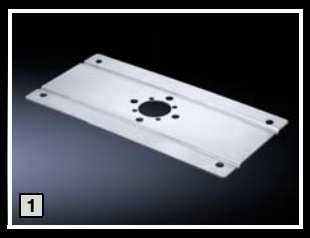
Brackets for screw-fastening from below to the pedestals with posidrive raised countersunk screws M12. Optionally with projection at the front, interior or sides, with Ø 11 mm hole for screw-fastening to the base.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Posidrive raised countersunk screws M12

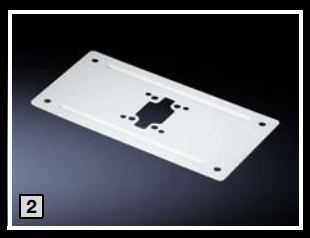
Packs of	**Model No.**
4 pc(s).	**6147.000**



Enclosure reinforcement

For external or internal reinforcement of enclosures of a corresponding size. Smaller enclosures may also be mounted directly without reinforcement.

Supply includes:
– Assembly parts for the enclosure and support section plus 2 seals



	For enclosure	Support arm connection	Material	Weight kg	**Model No.**
1	B1 ≥ 300 mm, T1 ≥ 150 mm	CP 40, stainless steel	Stainless steel 1.4301	0.9	**6143.310**
2	B1 ≥ 300 mm, T1 ≥ 150 mm	CP 60	Sheet steel	0.9	**6106.110**

Adaptor CP 60 to CP 40

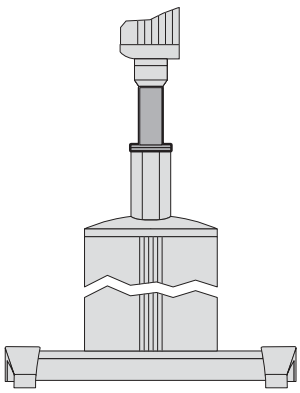
for stand and support arm systems
For the transition from support section CP 60 to 48 round pipe.

Material:
– Steel

Colour:
– RAL 7035

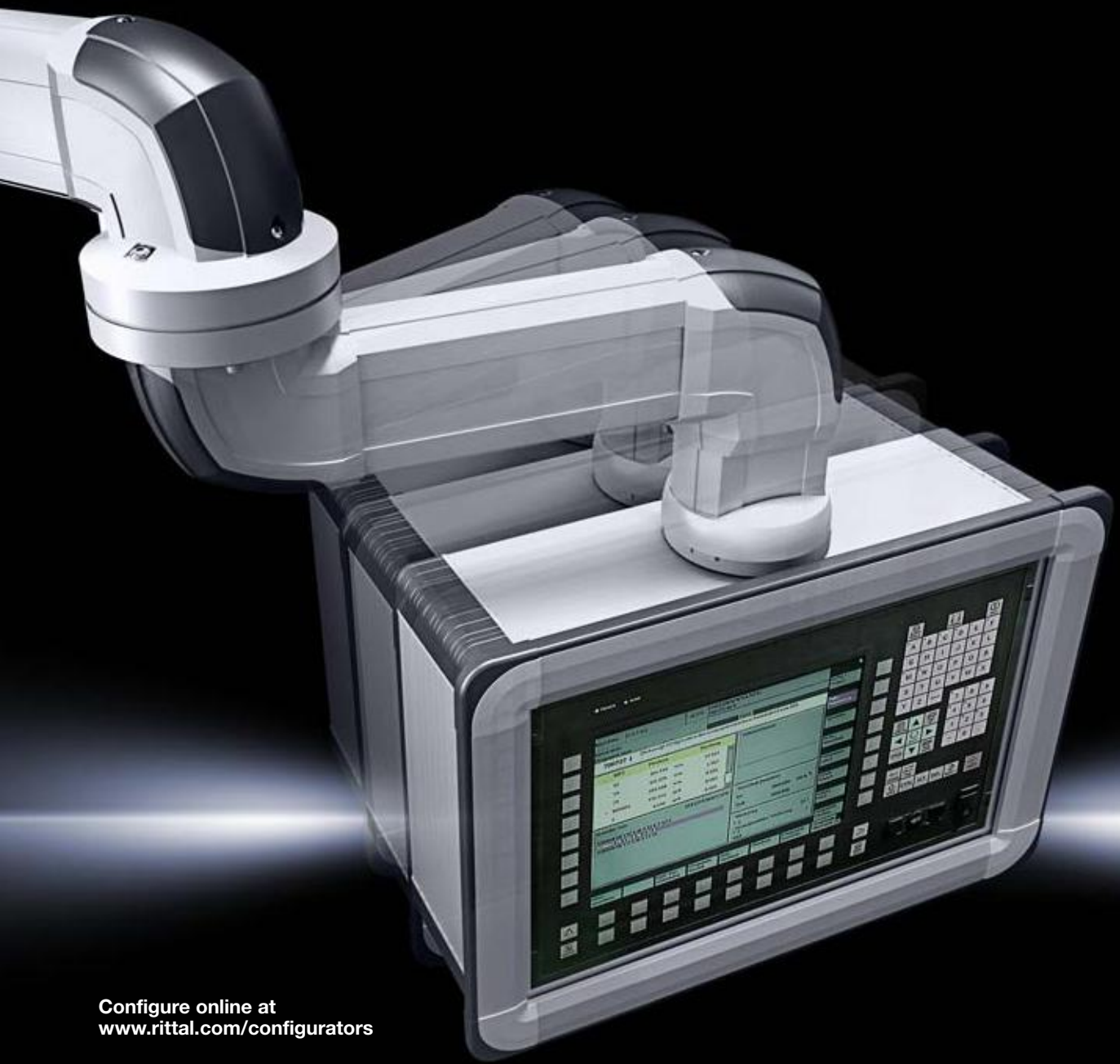
Supply includes:
– Adaptor
– Self-tapping screws for support section attachment
– Seal

Length mm	Weight kg	Rigid	Packs of	**Model No.**
300	1.81	■	1 pc(s).	**6206.650**



Comfort Panel

Simple selection with the online configurator,
see page 273



Configure online at
www.rittal.com/configurators

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Faster – better – everywhere.

Hygienic Design

Small and compact enclosures HD

Product advantages 218
Terminal boxes HD 220
Compact enclosures HD, single-door 221
Compact enclosures HD, two-door 222
Accessories 223

DGUV Test

NV 16201

Hygiene geprüft
hygiene tested

dguv.de/pruefzeichen

Hygienic Design enclosures – Added cleanliness guaranteed!

Silicone seal

- All-round external joint-free silicone seal
- Easy to replace
- Guides and fixes the lid to the screw fasteners
- All-round tilt for terminal boxes
  – Enclosure: 3°
  – Lid: 10°

Interior installation

- Mounting hole pitch pattern of 6.25 mm for greater flexibility
- KX support rails and mounting plates may be directly fitted

Hinges and seal

- Hinges that are inside the sealing zone create an exceptionally easy-clean design on the outside
- The durable all-round, external silicone seal is joint-free
- Installed sealing frames are easily replaced
- No external cavity between enclosure and door
- Seal dyed blue to clearly distinguish it from foodstuffs

Screw fastener

- Captive
- With external seal
- Hexagon shape for perfect cleanliness

Lock and lock insert

- External parts made of stainless steel
- Material and shape allow easy and reliable cleaning

Roof, tilted

- 30° tilt on compact enclosures prevents objects from being deposited on it
- Easily inspected
- Allows fluids to drain off rapidly

Hygienic Design

HD accessories Page 223 **System accessories** Page 877 **Terminal boxes KX, stainless steel** Page 230

Design:
– Enclosure angled forwards by 3°

Material:
– Enclosure and cover: Stainless steel 1.4301 (AISI 304) 1.5 mm
– Mounting bracket: Sheet steel, zinc-plated, passivated, 2.0 mm
– Screw plug: Stainless steel
– Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

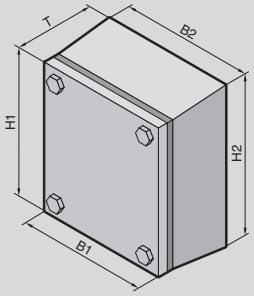
Surface finish:
– Enclosure and cover: Brushed, grain 400, peak-to-valley height < 0.8 µm
– Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:
– IP 66
– IP X9

Protection category NEMA:
– NEMA 13
– NEMA 3R
– NEMA 4X

Supply includes:
– Enclosure of all-round solid construction
– Cover
– Mounting bracket (pre-assembled)
– Seal and screw plug (supplied loose)

Approvals:
– UL
– cUL



Terminal boxes HD

Width front (B1) mm	Packs of	150	150	200	300	400	400	Page
Width rear (B2) mm		172	177	227	327	427	427	
Height front (H1) mm		150	150	200	200	200	300	
Height rear (H2) mm		172	177	227	227	227	327	
Depth (T) mm		80	120	120	120	120	120	
Model No.	1 pc(s).	**1670.600**	**1671.600**	**1672.600**	**1674.600**	**1675.600**	**1676.600**	
Weight kg		1.7	2.2	3.0	4.0	5.0	5.9	
Accessories								
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	223
Support rail TS 35/7.5	10 pc(s).	2314.000	2314.000	2315.000	2316.000	2317.000	2317.000	997
Cable gland HD		see page	see page	see page	see page	see page	see page	1057
Mounting plate	1 pc(s).	1560.800	1560.800	1562.800	1563.800	1564.800	1568.800	970

HD accessories Page 223 **System accessories** Page 877 **AX stainless steel** Page 236

Design:
– Roof angled forwards by 30°

Material:
– Enclosure and door: Stainless steel 1.4301 (AISI 304)
– Mounting plate: Sheet steel
– Lock insert HD: Stainless steel 1.4404 (AISI 316L)
– Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

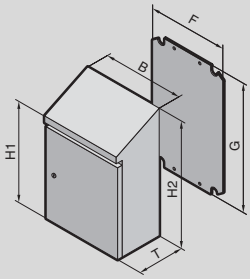
Surface finish:
– Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
– Mounting plate: Zinc-plated
– Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:
– IP 66
– IP X9

Protection category NEMA:
– NEMA 13
– NEMA 4X

Supply includes:
– Enclosure of all-round solid construction
– Door with inserted seal
– Door hinged on the right, may be swapped to the left
– Mounting plate

Approvals:
– UL
– cUL



Compact enclosures HD, single-door

Width (B) mm	Packs of	220	390	390	510	610	Page
Height front (H1) mm		350	430	650	550	430	
Height rear (H2) mm		437	549	769	669	601	
Depth (T) mm		155	210	210	210	300	
Mounting plate width (F) mm		162	330	330	450	550	
Mounting plate height (G) mm		275	355	575	475	355	
Model No.	1 pc(s).	**1302.600**	**1306.600**	**1308.600**	**1307.600**	**1320.600**	
Weight kg		6.6	14.7	17.9	19.7	21.7	
Accessories							
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	223
Cable gland HD		see page	see page	see page	see page	see page	1057
Rail for interior installation	4 pc(s).	–	–	5001.050	–	–	225
T handle HD	1 pc(s).	4000.065	4000.065	4000.065	4000.065	4000.065	223

Compact enclosures HD, single-door

Width (B) mm	Packs of	610	810	810	810	810	Page
Height front (H1) mm		650	430	650	1050	1250	
Height rear (H2) mm		769	549	821	1221	1421	
Depth (T) mm		210	210	300	300	300	
Mounting plate width (F) mm		550	750	750	745	745	
Mounting plate height (G) mm		575	355	575	975	1145	
Model No.	1 pc(s).	**1310.600**	**1314.600**	**1315.600**	**1316.600**	**1317.600**	
Weight kg		27.4	25.5	39.0	60.1	71.0	
Accessories							
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	4000.100	4000.100	4000.100	223
Cable gland HD		see page	see page	see page	see page	see page	1057
Rail for interior installation	4 pc(s).	5001.050	–	5001.050	see page	see page	225
T handle HD	1 pc(s).	4000.065	4000.065	4000.065	4000.065	4000.065	223

Hygienic Design

HD accessories Page 223 **System accessories** Page 877 **AX stainless steel** Page 236

Design:
– Roof angled forwards by 30°

Material:
– Enclosure and doors: Stainless steel 1.4301 (AISI 304)
– Mounting plate: Sheet steel
– Lock insert HD: Stainless steel 1.4404 (AISI 316L)
– Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

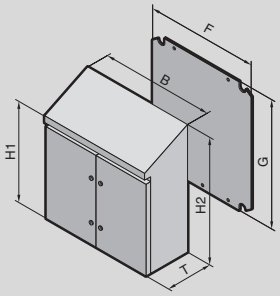
Surface finish:
– Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
– Mounting plate: Zinc-plated
– Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:
– IP 66
– IP X9

Protection category NEMA:
– NEMA 13
– NEMA 4X

Supply includes:
– Enclosure of all-round solid construction
– Door with inserted seal
– Mounting plate

Approvals:
– UL
– cUL



Compact enclosures HD, two-door

Width (B) mm	Packs of	1010	1010	Page
Height front (H1) mm		1050	1250	
Height rear (H2) mm		1280	1480	
Depth (T) mm		400	400	
Mounting plate width (F) mm		945	945	
Mounting plate height (G) mm		975	1175	
Model No.	1 pc(s).	**1318.600**	**1319.600**	
Accessories				
Wall spacer bracket HD	1 pc(s).	4000.100	4000.100	223
Cable gland HD		see page	see page	1057
Rail for interior installation	4 pc(s).	5001.052	5001.053	225
T handle HD	1 pc(s).	4000.065	4000.065	223

Levelling feet HD

Benefits:
- Minimises cleaning time thanks to fully covered, permanently sealed threads
- Compensation of floor inclines up to an angle of 10° thanks to flexible base
- Baying can even be achieved on sloping floors, thanks to a large levelling range

Material:
- Stainless steel 1.4301 (AISI 304)

Load capacity:
- Max. 7000 N static per levelling foot

Supply includes:
- Assembly parts and seals

Design	Thread	Adjustment range mm	Packs of	Model No.
without base mount	M12	122 - 175	4 pc(s).	**4000.240**
with base attachment	M12	122 - 175	4 pc(s).	**4000.250**

Wall spacer bracket HD

Benefits:
- Creates space for cleaning behind the enclosure
- Shorter assembly times by eliminating the need for an all-round seal
- Improved hygiene by avoiding inaccessible dead spaces or gaps between the enclosure and wall

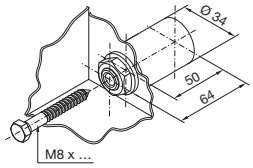
Functions:
- Mounting on the wall optionally from the enclosure interior via a through-hole (max. M8) or from the rear via an integral M10 thread

Material:
- Stainless steel 1.4301 (AISI 304)

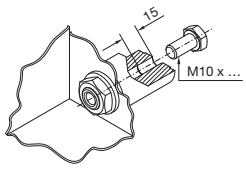
Supply includes:
- Assembly parts and seals

Note:
- Depending on the size of the enclosure, up to 4 wall spacer brackets are required to ensure sufficiently stable wall mounting

Wall distance mm	Packs of	Model No.
50	1 pc(s).	**4000.100**



Attachment from inside



Attachment from outside

T handle HD

For easy opening without a key. May be exchanged in all enclosures with cam lock.

Material:
- Stainless steel 1.4301 (AISI 304)

Packs of	Model No.
1 pc(s).	**4000.065**

Accessories

Cam lock HD

Hygienic Design variant for easy, safe cleaning.

Applications:
– May be integrated into customised applications, e.g. covers of machine panels.

Material:
– Stainless steel 1.4404 (AISI 316L)
– Fastener lug, lock nut: Steel, zinc-plated

Packs of	Model No.
1 pc(s).	**2304.010**

Accessories:

– Enclosure key HD, see page 224

Enclosure key HD

For HD cam lock.

Note:
– Enclosure, case and lock systems are supplied as standard with matching keys

Packs of	Model No.
1 pc(s).	**2549.600**

Bit HD

for universal key 2549.500

Packs of	Model No.
1 pc(s).	**2549.510**

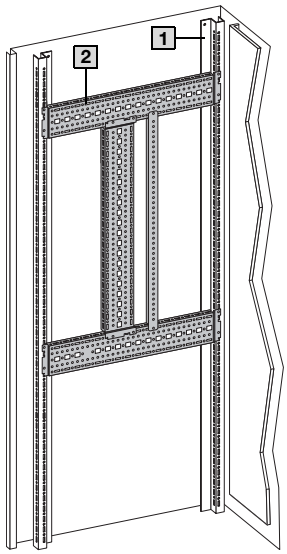
Rails for interior installation

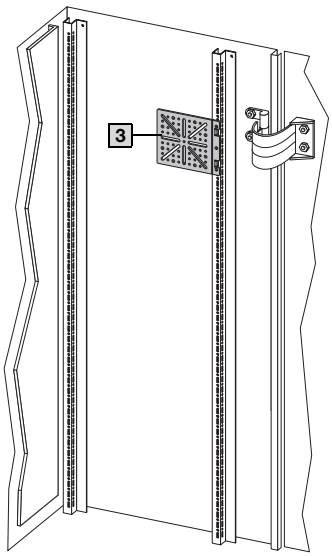
for HD compact enclosures
For mounting on the existing threaded bolts.
With system punchings on three sides.

Material:
– Sheet steel, zinc-plated

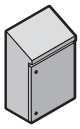
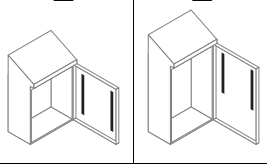
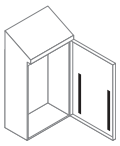
Supply includes:
– Assembly parts

Length mm	Packs of	**Model No.**	Page
510	4 pc(s).	**5001.050**	995
710	4 pc(s).	**5001.051**	995
910	4 pc(s).	**5001.052**	995
1110	4 pc(s).	**5001.053**	995





Interior installation, door

Enclosure	1	1	1
			
Model No.	**Model No.**		
1316.600	5001.052	5001.050	5001.050
1317.600	5001.053	5001.051 5001.050	5001.051 5001.050
1318.600	5001.052	5001.050	5001.050
1319.600	5001.053	5001.051 5001.050	5001.051 5001.050

Interior installation, enclosure

Enclosure	1 Rails for interior installation	2 Punched section with mounting flange, 17 x 73 mm	3 Mounting plates
Model No.	**Model No.**		
1308.600 1310.600 1315.600	5001.050	–	–
1316.600	5001.052	8612.130 (only on lock side)	8612.400 8612.410
1317.600	5001.053	8612.130 (only on lock side)	8612.400 8612.410
1318.600	5001.052	–	8612.400 8612.410
1319.600	5001.053	–	8612.400 8612.410

Rittal – The System.

Faster – better – everywhere.

Stainless steel

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Stainless steel enclosures

The secure choice for harsh environments

Incredible enclosure diversity

- Stainless steel enclosures for all requirement profiles in modern industrial technology. They meet the extremely high demands associated with corrosion protection and chemical substances.
- The smooth surface boasts outstanding hygienic properties which means less cleaning work.
- Depending on the requirements, the materials used are stainless steel 1.4301 (AISI 304) or stainless steel 1.4404 (AISI 316L).
- Cleverly thought-out system platforms, in conjunction with an extensive selection of system accessories, create outstanding solution diversity in the Rittal stainless steel range.

Coordinating accessories

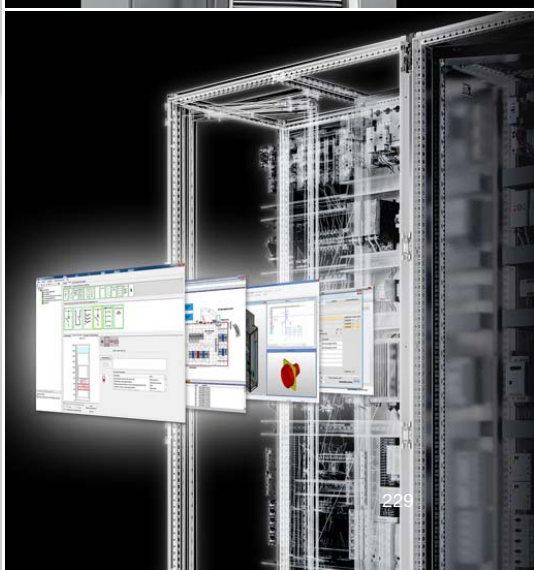
- The uniform system platforms used in the sheet steel range produce unique installation diversity with identical engineering.
- In particular, the interior installation largely eliminates any machining of the enclosures and therefore plays a key role in maintaining the high protection category.

Optimum climate control

- Among stainless steel applications, climate control often represents a major problem because the risk of expensive system failures or machine standstills can only be decisively reduced with the right climate control components. Rely on Rittal for the perfect solutions:
  – An extensive range of wall- and roof-mounted cooling units with efficient Blue e+ technology
  – Fan-and-filter units combined with a hose-proof hood provide a simple, efficient and secure solution provided the ambient temperature is sufficiently low
  – With one of the world's leading ranges and a comprehensive service portfolio, Rittal offers individual solution concepts to minimise the risks

Efficient engineering

- Uniform design basis for sheet steel and stainless steel racks and enclosures for simple, fast assembly
- Identical engineering for sheet steel and stainless steel allows simple, time-saving planning
- A host of tools provide support with the automated production process and when working with virtual prototypes:
  – Rittal Configuration System
  – EPLAN Pro Panel
  – 2D/3D CAD data
  – ecl@ss Advanced
  – Technical documentation
- Fast, efficient calculation of climate control requirements for individual enclosure assemblies with Therm software



Small enclosures KX

System accessories Page 877 **Terminal boxes KX, sheet steel** Page 56 **Ex enclosures** Page 257 **Hygienic Design** Page 217

Material:
– Enclosures: Stainless steel 1.4301 (AISI 304)
– Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Brushed, grain size 400

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4X

Supply includes:
– Enclosure with cover
– Mini cam locks

Approvals:
– UL
– cUL
Further approvals can be found on the Internet.

Terminal boxes KX, stainless steel, without gland plate

Width mm	Packs of	150	150	300	200	200	Page
Height mm		150	150	150	200	200	
Depth mm		80	120	80	80	120	
Material thickness – enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness – cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1560.000**	**1564.000**	**1561.000**	**1562.000**	**1565.000**	
Weight, approx. kg		1.3	1.6	1.8	1.8	2.2	
Mini cam lock		4	4	4	4	4	
Accessories							
Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	1594.010	1594.010	965
Wall angle	4 pc(s).	–	–	2583.010	2583.010	2583.010	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1560.800	1560.800	1561.800	1562.800	1562.800	970
Support rails TS 35/7.5	10 pc(s).	2314.000	2314.000	2316.000	2315.000	2315.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2365.000	2366.000	2365.000	2365.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge, stainless steel	2 pc(s).	1592.210	1592.210	1592.210	1592.210	1592.210	951
Earth straps	5 pc(s).	2565.100	2565.050	2565.100	2565.100	2565.050	1033
Baying kit	1 pc(s).	–	1199.100	–	–	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws for mounting plate	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	1004

Terminal boxes KX, stainless steel, without gland plate

Width mm	Packs of	300	300	400	300	400	Page
Height mm		200	200	200	300	300	
Depth mm		80	120	120	120	120	
Material thickness – enclosure mm		1.25	1.25	1.25	1.25	1.25	
Material thickness – cover mm		1.25	1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**1563.000**	**1566.000**	**1568.000**	**1567.000**	**1569.000**	
Weight, approx. kg		2.4	2.9	3.6	3.9	4.6	
Mini cam lock		4	4	4	4	4	
Accessories							
Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	1594.010	1594.010	965
Wall angle	4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1563.800	1563.800	1564.800	1567.800	1568.800	970
Support rails TS 35/7.5	10 pc(s).	2316.000	2316.000	2317.000	2316.000	2317.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2365.000	2366.000	2366.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	2309.100	2309.100	998
Cover hinge, stainless steel	2 pc(s).	1592.210	1592.210	1592.210	1592.210	1592.210	951
Earth straps	5 pc(s).	2565.100	2565.050	2565.050	2565.050	2565.050	1033
Baying kit	1 pc(s).	–	1199.100	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws for mounting plate	300 pc(s).	2487.000	2487.000	2487.000	2487.000	2487.000	1004

Small enclosures KX

System accessories Page 877 **E-Box KX, sheet steel** Page 64 **Ex enclosures** Page 257

Material:
- Enclosure: Stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting plate: Sheet steel

Surface finish:
- Enclosure and door: Brushed, grain size 400
- Mounting plate: Zinc-plated

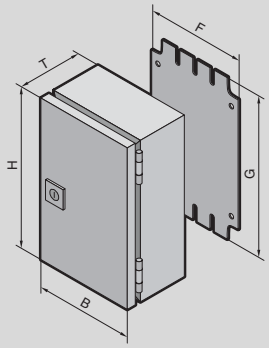
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure with door
- Mounting plate
- Cam lock with 3 mm double-bit insert

Approvals:
- UL
- cUL

Further approvals can be found on the Internet.



E-Box KX, stainless steel, depth 120/155 mm

Width (B) mm		Packs of	200	200	200	380	Page
Height (H) mm			300	300	300	300	
Depth (T) mm			120	155	155	155	
Mounting plate width (F) mm			175	175	175	365	
Mounting plate height (G) mm			285	285	285	275	
Material	Stainless steel 1.4301 (AISI 304)		■	■	–	■	
	Stainless steel 1.4404 (AISI 316L)		–	–	■	–	
Material thickness – enclosure mm			1.25	1.25	1.5	1.25	
Material thickness – door mm			1.25	1.25	1.5	1.25	
Model No.		1 pc(s).	**1584.000**	**1587.000**	**1301.000**	**1588.000**	
Weight, approx. kg			3.6	4.1	4.1	7.5	
Accessories							
Wall mounting bracket, for AX stainless steel, KX stainless steel		4 pc(s).	1594.010	1594.010	1594.010	1594.010	965
Pole clamp		2 pc(s).	2584.100	2584.100	2584.100	2584.100	968
Support rails TS 35/7.5		10 pc(s).	2315.000	2315.000	2315.000	2317.000[1)]	997
Mounting clip for support rails		30 pc(s).	2309.000	2309.000	2309.000	2309.000	997
Mounting bracket		4 pc(s).	4597.000	4597.000	4597.000	4597.000	999
Rail mounting bracket		20 pc(s).	2366.000	2366.000	2366.000	2366.000	1002
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	2537.100	2537.100	940
Mini-comfort handle AX for padlocks and lock inserts or profile half-cylinders		1 pc(s).	2537.300	2537.300	2537.300	2537.300	940
Cam lock with double-bit insert, stainless steel 1.4404 (AISI 316L)		1 pc(s).	2309.110	2309.110	2309.110	2309.110	943
Lock insert 7 mm square		1 pc(s).	2460.000	2460.000	2460.000	2460.000	941
Lock insert 8 mm square		1 pc(s).	2461.000	2461.000	2461.000	2461.000	941
Lock insert 7 mm triangular		1 pc(s).	2462.000	2462.000	2462.000	2462.000	941
Lock insert 8 mm triangular		1 pc(s).	2463.000	2463.000	2463.000	2463.000	941
Lock insert, screwdriver		1 pc(s).	2464.000	2464.000	2464.000	2464.000	941
Lock insert Daimler		1 pc(s).	2465.000	2465.000	2465.000	2465.000	941
Lock insert 3 mm double-bit		1 pc(s).	2466.000	2466.000	2466.000	2466.000	941
Lock insert Fiat		1 pc(s).	2307.000	2307.000	2307.000	2307.000	941
Lock insert 6.5 mm triangular		1 pc(s).	2460.650	2460.650	2460.650	2460.650	941
Earth straps		5 pc(s).	2565.050	2565.050	2565.050	2565.050	1033
Pressure relief stopper		5 pc(s).	2459.500	2459.500	2459.500	2459.500	900
Condensate discharge		6 pc(s).	2459.000	2459.000	2459.000	2459.000	900
Self-tapping screws for mounting plate		300 pc(s).	2487.000	2487.000	2487.000	2487.000	1004

[1)] Must be cut to length accordingly

Small enclosures KX

System accessories Page 877 **Bus enclosures KX, sheet steel** Page 70

Material:
– Enclosures: Stainless steel 1.4301 (AISI 304)
– Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal
– Hinges: Die-cast zinc

Surface finish:
– Enclosure and cover: Brushed, grain size 400

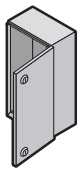
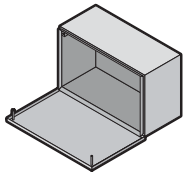
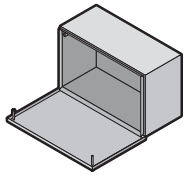
Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4X

Supply includes:
– Enclosure with hinged cover
– Mini cam lock

Approvals:
– UL
– cUL
Further approvals can be found on the Internet.

Bus enclosures KX, stainless steel

					
Width mm	Packs of	200	400	600	Page
Height mm		300	200	200	
Depth mm		80	120	120	
Material thickness – enclosure mm		1.25	1.25	1.25	
Material thickness – cover mm		1.25	1.25	1.25	
Model No.	1 pc(s).	**1583.000**	**1585.000**	**1586.000**	
Weight, approx. kg		2.8	4.5	6.0	
Accessories					
Wall mounting bracket, for AX stainless steel, KX stainless steel	4 pc(s).	1594.010	1594.010	1594.010	965
Wall angle	4 pc(s).	–	–	2583.010	967
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	968
Mounting plates	1 pc(s).	1563.800	1564.800	1566.800	970
Support rails TS 35/7.5	10 pc(s).	2315.000	2317.000	–	997
Support rails TS 35/15	10 pc(s).	–	–	2319.000	997
Mounting clip for support rails	30 pc(s).	2309.000	2309.000	2309.000	997
Mounting bracket	4 pc(s).	4597.000	4597.000	4597.000	999
Rail mounting bracket	20 pc(s).	2365.000	2366.000	2366.000	1002
Mounting claw for second mounting level	20 pc(s).	2309.100	2309.100	2309.100	998
Earth straps	5 pc(s).	2565.100	2565.050	2565.050	1033
Baying kit	1 pc(s).	1199.100	1199.100	1199.100	916
Pressure relief stopper	5 pc(s).	2459.500	2459.500	2459.500	900
Condensate discharge	6 pc(s).	2459.000	2459.000	2459.000	900
Self-tapping screws for mounting plate	300 pc(s).	2487.000	2487.000	2487.000	1004

System accessories Page 877

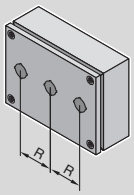
Material:
– Enclosure: Stainless steel 1.4301 (AISI 304)
– Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:
– Enclosure and cover: Brushed, grain 240

Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 4X

Supply includes:
– Enclosure with cover
– Quick-release fastener including plastic bushes



Switch housings, stainless steel

Width mm	Packs of	100	160	220	280	Page
Height mm		100	100	100	100	
Depth mm		90	90	90	90	
Material thickness - enclosure mm		1.25	1.25	1.25	1.25	
Material thickness - cover mm		1.25	1.25	1.25	1.25	
Model No.	1 pc(s).	**2384.010**	**2384.020**	**2384.030**	**2384.040**	
Pitch pattern (R) mm		–	60	60	60	
No. of switch cut-outs Ø 22.5 mm		1	2	3	4	
Number of locks		2	4	4	4	
Accessories						
Wall mounting bracket	4 pc(s).	1594.010	1594.010	1594.010	1594.010	965
Pressure relief stoppers	5 pc(s).	2459.500	2459.500	2459.500	2459.500	900
Cable gland HD		see page	see page	see page	see page	1057
Earth straps	5 pc(s).	2565.100	2565.100	2565.100	2565.100	1033

Compact enclosures AX

System accessories Page 877 **AX sheet steel** Page 84 **Ex enclosures** Page 257 **Hygienic Design** Page 217 **Outdoor housing** Page 958

Material:
- Enclosure: Stainless steel
- Door: Stainless steel, all-round foamed-in PU seal
- Mounting plate: Sheet steel
- Lock: Die-cast zinc, nickel-plated, double-bit insert: Stainless steel

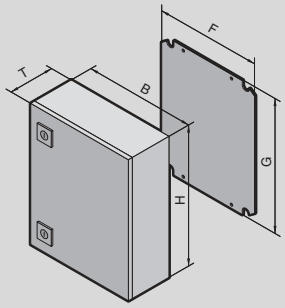
Surface finish:
- Enclosure and door: Brushed, grain size 400
- Mounting plate: Zinc-plated

Supply includes:
- Enclosure with door(s)
- Mounting plate
- Lock: 3 mm double-bit

Please note the product-specific scope of supply.

Approvals:
- UL
- cUL

Further approvals can be found on the Internet.



Basic enclosure AX, stainless steel

Width (B) mm		Packs of	300	300	Page
Height (H) mm			300	380	
Depth (T) mm			210	210	
Mounting plate width (F) mm			250	250	
Mounting plate height (G) mm			275	355	
Material	Stainless steel 1.4301 (AISI 304)		■	■	
	Stainless steel 1.4404 (AISI 316L)		–	–	
Model No.		1 pc(s).	**1003.000**	**1005.000**	
Weight, approx. kg			6.9	8.4	
Protection category IP to IEC 60 529			IP 66	IP 66	
Protection category NEMA			NEMA 4X	NEMA 4X	
Product-specific scope of supply					
Door(s)			1	1	
Cam lock			1	1	
3-point lock system			–	–	
Accessories					
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 20 mm		4 pc(s).	2433.010	2433.010	967
Wall angle, stainless steel 1.4301		4 pc(s).	2583.010	2583.010	967
Pole clamp		2 pc(s).	2584.100	2584.100	968
Rail for interior installation		4 pc(s).	2393.210	2393.210	989
Punched section with mounting flange 14 x 39 mm, installation in the height			–	–	
Punched section with mounting flange 14 x 39 mm, installation in the door			–	–	
Support strips, installation in the door			–	–	
LED system light			–	–	
Comfort handle AX for lock inserts or profile half-cylinders			–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	940
Cam lock with double-bit insert, stainless steel 1.4404 (AISI 316L)		1 pc(s).	2304.100	2304.100	943
Lock inserts			see page	see page	941, 942
Perforated door strip			–	–	
Door stay		1 pc(s).	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable			–	–	
Plastic wiring plan pockets			see page	see page	955
Wiring plan pockets with transparent pouch			see page	see page	955
Protective roof		1 pc(s).	2361.010	2361.010	958
Earth straps			see page	see page	1033
Baying kit		1 pc(s).	1199.100	1199.100	916
Cable gland, brass M12 x 1.5		15 pc(s).	2411.801	2411.801	1056
Cable gland, brass M16 x 1.5		15 pc(s).	2411.811	2411.811	1056
Cable gland, brass M20 x 1.5		10 pc(s).	2411.821	2411.821	1056
Cable gland, brass M25 x 1.5		10 pc(s).	2411.831	2411.831	1056
Cable gland, brass M32 x 1.5		5 pc(s).	2411.841	2411.841	1056
Cable gland, brass M40 x 1.5		4 pc(s).	2411.851	2411.851	1056
Cable gland, brass M50 x 1.5		2 pc(s).	2411.861	2411.861	1056
Cable gland, brass M63 x 1.5		1 pc(s).	2411.871	2411.871	1056
Cable gland, polyamide M12 x 1.5		50 pc(s).	2411.601	2411.601	1056
Cable gland, polyamide M16 x 1.5		50 pc(s).	2411.611	2411.611	1056
Cable gland, polyamide M20 x 1.5		50 pc(s).	2411.621	2411.621	1056
Cable gland, polyamide M25 x 1.5		25 pc(s).	2411.631	2411.631	1056
Cable gland, polyamide M32 x 1.5		15 pc(s).	2411.641	2411.641	1056
Cable gland, polyamide M40 x 1.5		5 pc(s).	2411.651	2411.651	1056
Cable gland, polyamide M50 x 1.5		5 pc(s).	2411.661	2411.661	1056
Cable gland, polyamide M63 x 1.5		3 pc(s).	2411.671	2411.671	1056

Compact enclosures AX

Basic enclosure AX, stainless steel

Width (B) mm		Packs of	300	380	380	380	380	400	Page
Height (H) mm			380	300	380	380	600	500	
Depth (T) mm			210	210	210	210	210	210	
Mounting plate width (F) mm			250	330	330	330	330	350	
Mounting plate height (G) mm			355	275	355	355	575	475	
Material	Stainless steel 1.4301 (AISI 304)		–	■	■	–	■	■	
	Stainless steel 1.4404 (AISI 316L)		■	–	–	■	–	–	
Model No.		1 pc(s).	**1302.000**	**1011.000**	**1006.000**	**1303.000**	**1008.000**	**1015.000**	
Weight, approx. kg			8.4	8.4	9.8	9.8	15.1	12.9	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	
Product-specific scope of supply									
Door(s)			1	1	1	1	1	1	
Cam lock			1	1	1	1	2	2	
3-point lock system			–	–	–	–	–	–	
Accessories									
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 20 mm		4 pc(s).	2433.510	2433.010	2433.010	2433.510	2433.010	2433.010	967
Wall angle, stainless steel 1.4301		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	967
Pole clamp		2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Rail for interior installation		4 pc(s).	2393.210	2393.210	2393.210	2393.210	2393.210	2393.210	989
Punched section with mounting flange 14 x 39 mm, installation in the height		4 pc(s).	–	–	–	–	8619.720	8619.710	990
Punched section with mounting flange 14 x 39 mm, installation in the door			–	–	–	–	–	–	
Support strips, installation in the door			–	–	–	–	–	–	
LED system light			–	–	–	–	–	2500.100	1014
Comfort handle AX for lock inserts or profile half-cylinders			–	–	–	–	–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Cam lock with double-bit insert, stainless steel 1.4404 (AISI 316L)		1 pc(s).	2304.100	2304.100	2304.100	2304.100	2304.100	2304.100	943
Lock inserts			see page	see page	see page	see page	see page	see page	941, 942
Perforated door strip			–	–	–	–	–	–	
Door stay		1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable			–	–	–	–	–	–	
Plastic wiring plan pockets			see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch			see page	see page	see page	see page	see page	see page	955
Protective roof		1 pc(s).	2361.010	2472.010	2472.010	2472.010	2472.010	–	958
Earth straps			see page	see page	see page	see page	see page	see page	1033
Baying kit		1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass M12 x 1.5		15 pc(s).	2411.801	2411.801	2411.801	2411.801	2411.801	2411.801	1056
Cable gland, brass M16 x 1.5		15 pc(s).	2411.811	2411.811	2411.811	2411.811	2411.811	2411.811	1056
Cable gland, brass M20 x 1.5		10 pc(s).	2411.821	2411.821	2411.821	2411.821	2411.821	2411.821	1056
Cable gland, brass M25 x 1.5		10 pc(s).	2411.831	2411.831	2411.831	2411.831	2411.831	2411.831	1056
Cable gland, brass M32 x 1.5		5 pc(s).	2411.841	2411.841	2411.841	2411.841	2411.841	2411.841	1056
Cable gland, brass M40 x 1.5		4 pc(s).	2411.851	2411.851	2411.851	2411.851	2411.851	2411.851	1056
Cable gland, brass M50 x 1.5		2 pc(s).	2411.861	2411.861	2411.861	2411.861	2411.861	2411.861	1056
Cable gland, brass M63 x 1.5		1 pc(s).	2411.871	2411.871	2411.871	2411.871	2411.871	2411.871	1056
Cable gland, polyamide M12 x 1.5		50 pc(s).	2411.601	2411.601	2411.601	2411.601	2411.601	2411.601	1056
Cable gland, polyamide M16 x 1.5		50 pc(s).	2411.611	2411.611	2411.611	2411.611	2411.611	2411.611	1056
Cable gland, polyamide M20 x 1.5		50 pc(s).	2411.621	2411.621	2411.621	2411.621	2411.621	2411.621	1056
Cable gland, polyamide M25 x 1.5		25 pc(s).	2411.631	2411.631	2411.631	2411.631	2411.631	2411.631	1056
Cable gland, polyamide M32 x 1.5		15 pc(s).	2411.641	2411.641	2411.641	2411.641	2411.641	2411.641	1056
Cable gland, polyamide M40 x 1.5		5 pc(s).	2411.651	2411.651	2411.651	2411.651	2411.651	2411.651	1056
Cable gland, polyamide M50 x 1.5		5 pc(s).	2411.661	2411.661	2411.661	2411.661	2411.661	2411.661	1056
Cable gland, polyamide M63 x 1.5		3 pc(s).	2411.671	2411.671	2411.671	2411.671	2411.671	2411.671	1056

Basic enclosure AX, stainless steel

Width (B) mm		Packs of	500	500	600	600	600	600	Page
Height (H) mm			500	500	380	600	600	760	
Depth (T) mm			210	300	210	210	210	210	
Mounting plate width (F) mm			450	450	550	550	550	550	
Mounting plate height (G) mm			475	475	355	575	575	735	
Material	Stainless steel 1.4301 (AISI 304)		■	■	■	■	–	■	
	Stainless steel 1.4404 (AISI 316L)		–	–	–	–	■	–	
Model No.		1 pc(s).	**1007.000**	**1013.000**	**1009.000**	**1010.000**	**1304.000**	**1012.000**	
Weight, approx. kg			15.7	18.4	14.6	23.5	23.5	30.2	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 66	IP 66	IP 66	IP 66	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X	
Product-specific scope of supply									
Door(s)			1	1	1	1	1	1	
Cam lock			2	2	1	2	2	2	
3-point lock system			–	–	–	–	–	–	
Accessories									
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 20 mm		4 pc(s).	2433.010	2433.010	2433.010	2433.010	2433.510	2433.010	967
Wall angle, stainless steel 1.4301		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	967
Pole clamp		2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Rail for interior installation		4 pc(s).	2393.210	2393.300	2393.210	2393.210	2393.210	2393.210	989
Punched section with mounting flange 14 x 39 mm, installation in the height		4 pc(s).	8619.710	8619.710	–	8619.720	8619.720	–	990
Punched section with mounting flange 14 x 39 mm, installation in the door			–	–	–	–	–	–	
Support strips, installation in the door		20 pc(s).	–	–	–	–	–	4696.000	952
LED system light		1 pc(s).	2500.100	2500.100	2500.100	2500.100	2500.100	2500.100	1014
Comfort handle AX for lock inserts or profile half-cylinders			–	–	–	–	–	–	
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	2537.100	2537.100	2537.100	2537.100	940
Cam lock with double-bit insert, stainless steel 1.4404 (AISI 316L)		1 pc(s).	2304.100	2304.100	2304.100	2304.100	2304.100	2304.100	943
Lock inserts			see page	see page	see page	see page	see page	see page	941, 942
Perforated door strip		2 pc(s).	–	–	–	–	–	2311.076	953
Door stay		1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable[1)]		1 pc(s).	–	–	–	–	–	2515.300	954
Plastic wiring plan pockets			see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch			see page	see page	see page	see page	see page	see page	955
Protective roof		1 pc(s).	2362.010	–	2473.010	2473.010	2473.010	2473.010	958
Earth straps			see page	see page	see page	see page	see page	see page	1033
Baying kit		1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass M12 x 1.5		15 pc(s).	2411.801	2411.801	2411.801	2411.801	2411.801	2411.801	1056
Cable gland, brass M16 x 1.5		15 pc(s).	2411.811	2411.811	2411.811	2411.811	2411.811	2411.811	1056
Cable gland, brass M20 x 1.5		10 pc(s).	2411.821	2411.821	2411.821	2411.821	2411.821	2411.821	1056
Cable gland, brass M25 x 1.5		10 pc(s).	2411.831	2411.831	2411.831	2411.831	2411.831	2411.831	1056
Cable gland, brass M32 x 1.5		5 pc(s).	2411.841	2411.841	2411.841	2411.841	2411.841	2411.841	1056
Cable gland, brass M40 x 1.5		4 pc(s).	2411.851	2411.851	2411.851	2411.851	2411.851	2411.851	1056
Cable gland, brass M50 x 1.5		2 pc(s).	2411.861	2411.861	2411.861	2411.861	2411.861	2411.861	1056
Cable gland, brass M63 x 1.5		1 pc(s).	2411.871	2411.871	2411.871	2411.871	2411.871	2411.871	1056
Cable gland, polyamide M12 x 1.5		50 pc(s).	2411.601	2411.601	2411.601	2411.601	2411.601	2411.601	1056
Cable gland, polyamide M16 x 1.5		50 pc(s).	2411.611	2411.611	2411.611	2411.611	2411.611	2411.611	1056
Cable gland, polyamide M20 x 1.5		50 pc(s).	2411.621	2411.621	2411.621	2411.621	2411.621	2411.621	1056
Cable gland, polyamide M25 x 1.5		25 pc(s).	2411.631	2411.631	2411.631	2411.631	2411.631	2411.631	1056
Cable gland, polyamide M32 x 1.5		15 pc(s).	2411.641	2411.641	2411.641	2411.641	2411.641	2411.641	1056
Cable gland, polyamide M40 x 1.5		5 pc(s).	2411.651	2411.651	2411.651	2411.651	2411.651	2411.651	1056
Cable gland, polyamide M50 x 1.5		5 pc(s).	2411.661	2411.661	2411.661	2411.661	2411.661	2411.661	1056
Cable gland, polyamide M63 x 1.5		3 pc(s).	2411.671	2411.671	2411.671	2411.671	2411.671	2411.671	1056

[1)] The perforated door strip is required for the installation

Compact enclosures AX

Basic enclosure AX, stainless steel

Width (B) mm		Packs of	760	800	800	1000	1000	1000	Page
Height (H) mm			760	1000	1200	1000	1200	1200	
Depth (T) mm			300	300	300	300	300	300	
Mounting plate width (F) mm			705	745	745	945	945	945	
Mounting plate height (G) mm			735	975	1175	975	1175	1175	
Material	Stainless steel 1.4301 (AISI 304)		■	■	■	■	■	–	
	Stainless steel 1.4404 (AISI 316L)		–	–	–	–	–	■	
Model No.		1 pc(s).	**1014.000**	**1016.000**	**1017.000**	**1018.000**	**1019.000**	**1305.000**	
Weight, approx. kg			42.5	52.9	61.5	71.0	76.0	76.0	
Protection category IP to IEC 60 529			IP 66	IP 66	IP 66	IP 55	IP 55	IP 55	
Protection category NEMA			NEMA 4X	NEMA 4X	NEMA 4X	NEMA 12	NEMA 12	NEMA 12	
Product-specific scope of supply									
Door(s)			1	1	1	2	2	2	
Cam lock			2	2	–	2	–	–	
3-point lock system			–	–	■	–	■	■	
Accessories									
Wall mounting bracket, for AX stainless steel, KX stainless steel, wall distance 20 mm		4 pc(s).	2433.010	2433.010	2433.010	2433.010	2433.010	2433.510	967
Wall angle, stainless steel 1.4301		4 pc(s).	2583.010	2583.010	2583.010	2583.010	2583.010	2583.010	967
Pole clamp		2 pc(s).	2584.100	2584.100	2584.100	2584.100	2584.100	2584.100	968
Rail for interior installation		4 pc(s).	2393.300	2393.300	2393.300	2393.300	2393.300	2393.300	989
Punched section with mounting flange 14 x 39 mm, installation in the height		4 pc(s).	–	8619.750	8619.770	8619.750	8619.770	8619.770	990
Punched section with mounting flange 14 x 39 mm, installation in the door		4 pc(s).	–	–	8619.730	–	8619.710	8619.710	952
Support strips, installation in the door[2)]		20 pc(s).	4599.200	4697.000	4697.000	4695.000	4695.000	4695.000	952
LED system light		1 pc(s).	2500.110	2500.110	2500.110	2500.110	2500.110	2500.110	1014
Comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	–	–	2435.300	–	2435.300	2435.300	939
Mini-comfort handle AX for lock inserts or profile half-cylinders		1 pc(s).	2537.100	2537.100	–	2537.100	–	–	940
Cam lock with double-bit insert, stainless steel 1.4404 (AISI 316L)		1 pc(s).	2304.100	2304.100	2304.100	2304.100	–	2304.100	943
Lock inserts			see page	see page	see page	see page	see page	see page	941, 942
Perforated door strip		2 pc(s).	2311.076	2311.100	2311.120	2311.100	2311.120	2311.120	953
Door stay		1 pc(s).	2519.010	2519.010	2519.010	2519.010	2519.010	2519.010	956
Sheet steel wiring plan pockets, width-variable[1)]		1 pc(s).	2515.400	2515.400	2515.400	2515.200	2515.200	2515.200	954
Plastic wiring plan pockets			see page	see page	see page	see page	see page	see page	955
Wiring plan pockets with transparent pouch			see page	see page	see page	see page	see page	see page	955
Protective roof		1 pc(s).	2474.010	2475.010	2475.010	2363.010	2363.010	2363.010	958
Earth straps			see page	see page	see page	see page	see page	see page	1033
Baying kit		1 pc(s).	1199.100	1199.100	1199.100	1199.100	1199.100	1199.100	916
Cable gland, brass M12 x 1.5		15 pc(s).	2411.801	2411.801	2411.801	2411.801	2411.801	2411.801	1056
Cable gland, brass M16 x 1.5		15 pc(s).	2411.811	2411.811	2411.811	2411.811	2411.811	2411.811	1056
Cable gland, brass M20 x 1.5		10 pc(s).	2411.821	2411.821	2411.821	2411.821	2411.821	2411.821	1056
Cable gland, brass M25 x 1.5		10 pc(s).	2411.831	2411.831	2411.831	2411.831	2411.831	2411.831	1056
Cable gland, brass M32 x 1.5		5 pc(s).	2411.841	2411.841	2411.841	2411.841	2411.841	2411.841	1056
Cable gland, brass M40 x 1.5		4 pc(s).	2411.851	2411.851	2411.851	2411.851	2411.851	2411.851	1056
Cable gland, brass M50 x 1.5		2 pc(s).	2411.861	2411.861	2411.861	2411.861	2411.861	2411.861	1056
Cable gland, brass M63 x 1.5		1 pc(s).	2411.871	2411.871	2411.871	2411.871	2411.871	2411.871	1056
Cable gland, polyamide M12 x 1.5		50 pc(s).	2411.601	2411.601	2411.601	2411.601	2411.601	2411.601	1056
Cable gland, polyamide M16 x 1.5		50 pc(s).	2411.611	2411.611	2411.611	2411.611	2411.611	2411.611	1056
Cable gland, polyamide M20 x 1.5		50 pc(s).	2411.621	2411.621	2411.621	2411.621	2411.621	2411.621	1056
Cable gland, polyamide M25 x 1.5		25 pc(s).	2411.631	2411.631	2411.631	2411.631	2411.631	2411.631	1056
Cable gland, polyamide M32 x 1.5		15 pc(s).	2411.641	2411.641	2411.641	2411.641	2411.641	2411.641	1056
Cable gland, polyamide M40 x 1.5		5 pc(s).	2411.651	2411.651	2411.651	2411.651	2411.651	2411.651	1056
Cable gland, polyamide M50 x 1.5		5 pc(s).	2411.661	2411.661	2411.661	2411.661	2411.661	2411.661	1056
Cable gland, polyamide M63 x 1.5		3 pc(s).	2411.671	2411.671	2411.671	2411.671	2411.671	2411.671	1056

[1)] The perforated door strip is required for the installation
[2)] For two-door enclosures: Installation in the lockable door

Hose-proof hood

Increases the protection category and facilitates cleaning,
see page 538

Baying enclosure system VX25

System accessories Page 877 **VX25 sheet steel** Page 116 **Hygienic Design** Page 217 **VX SE stainless steel** Page 248

Material and surface finish:
- Enclosure frame: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Roof: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated

Protection category IP to IEC 60 529:
- IP 55

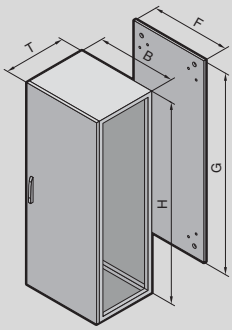
Protection category NEMA:
- NEMA 12

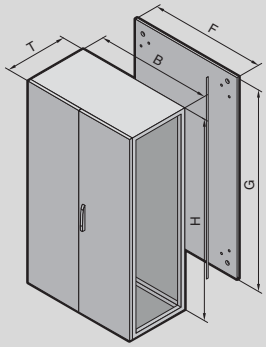
Supply includes:
- Enclosure frame
- Door(s) (r/h hinge, may be swapped to opposite side)
- Roof plate
- Gland plates
- Rear panel
- Mounting plate
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation

Approvals:
- UL
- cUL
- DNV-GL

Further approvals can be found on the Internet.





Baying enclosure system VX25

Basic enclosure, height 1800 mm, depth 400 mm, stainless steel

Width (B) mm	Packs of	800	1200	Page
Height (H) mm		1800	1800	
Depth (T) mm		400	400	
Mounting plate width (F) mm		699	1099	
Mounting plate height (G) mm		1696	1696	
Model No.	1 pc(s).	**8454.000**	**8456.000**	
Weight kg		110.0	167.0	
Product-specific scope of supply				
Door(s)		1	2	
Accessories				
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.051	8620.053	886
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8620.070	8620.070	887
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.061	8620.063	886
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8620.080	8620.080	887
Levelling feet	4 pc(s).	8100.780	8100.780	892
Punched section with mounting flange 23 x 89 mm, stainless steel, in the depth	4 pc(s).	8100.730	8100.730	991
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.030	8700.030	901
Divider panel	1 pc(s).	8609.200	8609.200	905
Divider panel for module plates		–	–	
Baying bracket, internal	6 pc(s).	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	912
Baying connector, external, stainless steel	6 pc(s).	8617.503	8617.503	912
Comfort handle VX for lock inserts	1 pc(s).	8618.220	8618.220	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	8618.280	937
Lock inserts		see page	see page	941, 942
180° hinges, stainless steel	4 pc(s).	8618.340	8618.340	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame	4 pc(s).	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm	1 pc(s).	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm	1 pc(s).	4118.000	4116.000	955
Door stay	1 pc(s).	8618.430	8618.430	956
Door stay for escape routes	1 pc(s).	8618.425	8618.425	956
Ride-up roller	10 pc(s).	8618.420	8618.420	956
Mounting plate infill	1 pc(s).	4590.700	4590.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width	4 pc(s).	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth	4 pc(s).	8617.010	8617.010	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width	4 pc(s).	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth	4 pc(s).	8617.110	8617.110	991
Punched rail 18 x 39 mm for the enclosure depth	4 pc(s).	8617.700	8617.700	993
Support strip for the enclosure depth	20 pc(s).	4694.000	4694.000	994
C rail 30/15, for the enclosure width	6 pc(s).	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width	2 pc(s).	8617.810	8617.830	996
LED system light		see page	see page	1014
Earth straps		see page	see page	1033
Section for cable entry, centre		8618.801	8618.803	1045
	Packs of	2 pc(s).	4 pc(s).	
Section for cable entry, rear		8618.811	8618.813	1045
	Packs of	2 pc(s).	4 pc(s).	
Cable duct		see page	see page	1058
Metal multi-tooth screws	300 pc(s).	2486.400	2486.400	1004
Cable clamp rail, right angle section	2 pc(s).	8619.420	8619.440	1059

Baying enclosure system VX25

Basic enclosure, height 1800 mm, depth 500 mm, stainless steel

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		1800	1800	1800	
Depth (T) mm		500	500	500	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1696	1696	1696	
Model No.	1 pc(s).	**8457.000**	**8455.000**	**8453.000**	
Weight kg		91.8	113.0	172.0	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.050	8620.051	8620.053	886
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8620.071	8620.071	8620.071	887
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.060	8620.061	8620.063	886
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8620.081	8620.081	8620.081	887
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780	892
Punched section with mounting flange 23 x 89 mm, stainless steel, in the depth	4 pc(s).	8100.731	8100.731	8100.731	991
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.040	8700.040	8700.040	901
Divider panel	1 pc(s).	8609.201	8609.201	8609.201	905
Divider panel for module plates	1 pc(s).	8609.210	8609.210	8609.210	906
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external, stainless steel	6 pc(s).	8617.503	8617.503	8617.503	912
Comfort handle VX for lock inserts	1 pc(s).	8618.220	8618.220	8618.220	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	8618.280	8618.280	937
Lock inserts		see page	see page	see page	941, 942
180° hinges, stainless steel	4 pc(s).	8618.340	8618.340	8618.340	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame	4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm	1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm	1 pc(s).	4116.000	4118.000	4116.000	955
Door stay	1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes	1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller	10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill	1 pc(s).	4590.700	4590.700	4590.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width	4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth	4 pc(s).	8617.020	8617.020	8617.020	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width	4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth	4 pc(s).	8617.120	8617.120	8617.120	991
Punched rail 18 x 39 mm for the enclosure depth	4 pc(s).	8617.710	8617.710	8617.710	993
Support strip for the enclosure depth	20 pc(s).	4695.000	4695.000	4695.000	994
C rail 30/15, for the enclosure width	6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width	2 pc(s).	8617.800	8617.810	8617.830	996
LED system light		see page	see page	see page	1014
Earth straps		see page	see page	see page	1033
Section for cable entry, centre		8618.800	8618.801	8618.803	1045
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear		8618.810	8618.811	8618.813	1045
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct		see page	see page	see page	1058
Metal multi-tooth screws	300 pc(s).	2486.400	2486.400	2486.400	1004
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.420	8619.440	1059

Basic enclosure, height 2000 mm, depth 600 mm, stainless steel

Width (B) mm	Packs of	600	800	1200	Page
Height (H) mm		2000	2000	2000	
Depth (T) mm		600	600	600	
Mounting plate width (F) mm		499	699	1099	
Mounting plate height (G) mm		1896	1896	1896	
Model No.	1 pc(s).	**8452.000**	**8450.000**	**8451.000**	
Weight kg		101.0	126.0	191.0	
Product-specific scope of supply					
Door(s)		1	1	2	
Accessories					
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.050	8620.051	8620.053	886
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8620.072	8620.072	8620.072	887
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.060	8620.061	8620.063	886
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8620.082	8620.082	8620.082	887
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780	892
Punched section with mounting flange 23 x 89 mm, stainless steel, in the depth	4 pc(s).	8100.732	8100.732	8100.732	991
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.050	8700.050	8700.050	901
Divider panel	1 pc(s).	8609.205	8609.205	8609.205	905
Divider panel for module plates	1 pc(s).	8609.213	8609.213	8609.213	906
Baying bracket, internal	6 pc(s).	8617.500	8617.500	8617.500	912
Baying block, internal	6 pc(s).	8617.501	8617.501	8617.501	912
Baying connector, external, stainless steel	6 pc(s).	8617.503	8617.503	8617.503	912
Comfort handle VX for lock inserts	1 pc(s).	8618.220	8618.220	8618.220	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	8618.280	8618.280	937
Lock inserts		see page	see page	see page	941, 942
180° hinges, stainless steel	4 pc(s).	8618.340	8618.340	8618.340	951
Punched section with mounting flange, 14 x 39 mm, for tubular door frame	4 pc(s).	8619.720	8619.730	8619.720	952
Wiring plan pocket, sheet steel, depth 35 mm	1 pc(s).	4116.500	4118.500	4116.500	955
Wiring plan pocket, sheet steel, depth 90 mm	1 pc(s).	4116.000	4118.000	4116.000	955
Door stay	1 pc(s).	8618.430	8618.430	8618.430	956
Door stay for escape routes	1 pc(s).	8618.425	8618.425	8618.425	956
Ride-up roller	10 pc(s).	8618.420	8618.420	8618.420	956
Mounting plate infill	1 pc(s).	4591.700	4591.700	4591.700	971
Punched section with mounting flange 18 x 64 mm for the outer level, in the width	4 pc(s).	8617.030	8617.040	8617.060	990
Punched section with mounting flange 18 x 64 mm for the outer level, in the depth	4 pc(s).	8617.030	8617.030	8617.030	990
Punched section with mounting flange 23 x 64 mm for the inner level, in the width	4 pc(s).	8617.130	8617.140	8617.160	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth	4 pc(s).	8617.130	8617.130	8617.130	991
Punched rail 18 x 39 mm for the enclosure depth	4 pc(s).	8617.720	8617.720	8617.720	993
Support strip for the enclosure depth	20 pc(s).	4696.000	4696.000	4696.000	994
C rail 30/15, for the enclosure width	6 pc(s).	4944.000	4945.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width	2 pc(s).	8617.800	8617.810	8617.830	996
LED system light		see page	see page	see page	1014
Earth straps		see page	see page	see page	1033
Section for cable entry, centre		8618.800	8618.801	8618.803	1045
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Section for cable entry, rear		8618.810	8618.811	8618.813	1045
	Packs of	2 pc(s).	2 pc(s).	4 pc(s).	
Cable duct		see page	see page	see page	1058
Metal multi-tooth screws	300 pc(s).	2486.400	2486.400	2486.400	1004
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.420	8619.440	1059

Baying enclosure system VX25

System accessories Page 877 **Cable entry** Page 1044 **VX SE IP 66/NEMA 4** Page 147

Material and surface finish:
- Enclosure frame: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Roof: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated

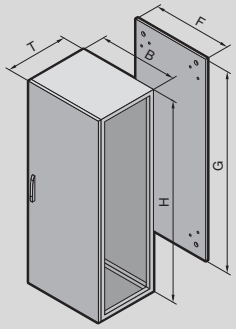
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure frame
- Door(s) (r/h hinge, may be swapped to opposite side)
- Roof
- Gland plate
- Rear panel
- Mounting plate
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm
- Accessory kit for side panels for upgrading to IP 66/NEMA 4X
- Baying seal

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation
- The standard baying connectors VX for bayed suites may be used while maintaining the protection category IP 66/ NEMA 4X

Approvals:
- UL
- cUL
- EAC



IP 66/NEMA 4X, stainless steel

Width (B) mm	Packs of	800	Page
Height (H) mm		2000	
Depth (T) mm		600	
Mounting plate width (F) mm		699	
Mounting plate height (G) mm		1896	
Model No.	1 pc(s).	**8458.000**	
Weight kg		129.0	
Accessories			
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.051	886
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8620.072	887
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.061	886
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8620.082	887
Punched section with mounting flange 23 x 89 mm, stainless steel, in the depth	4 pc(s).	8100.732	991
Side panels, screw-fastened, stainless steel	2 pc(s).	8700.050	901
Baying bracket, internal	6 pc(s).	8617.500	912
Baying block, internal	6 pc(s).	8617.501	912
Comfort handle VX for lock inserts	1 pc(s).	8618.220	937
Comfort handle VX for profile half-cylinders	1 pc(s).	8618.280	937
Lock inserts		see page	941, 942
Wiring plan pocket, sheet steel, depth 35 mm	1 pc(s).	4118.500	955
Wiring plan pocket, sheet steel, depth 90 mm	1 pc(s).	4118.000	955
LED system light		see page	1014
Cable duct		see page	1058
Cable clamp rail, right angle section	2 pc(s).	8619.420	1059

Cooling units Blue e+, stainless steel

Optimum climate control for stainless steel applications, see page 486

Free-standing enclosure system VX SE

System accessories Page 877 **VX SE stainless steel** Page 142 **Lock systems** Page 936 **Rail systems** Page 986

Material and surface finish:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm, uncoated

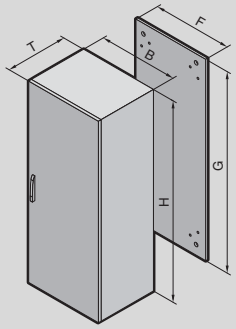
Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- R/h door hinge with single-door enclosures, may be swapped to opposite side
- Rear panel, detachable
- Mounting plate
- Gland plates
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation

Approvals:
- UL
- cUL



Basic enclosure, stainless steel

Width (B) mm		Packs of	600	600	800	800	1000	1200	Page
Height (H) mm			1600	1800	1800	2000	1800	2000	
Depth (T) mm			400	500	500	600	400	500	
Mounting plate width (F) mm			499	499	699	699	899	1099	
Mounting plate height (G) mm			1496	1696	1696	1896	1696	1896	
Model No.		1 pc(s).	**5850.600**	**5851.600**	**5852.600**	**5853.600**	**5854.600**	**5855.600**	
Door(s)			1	1	1	1	1	2	
Accessories									
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8620.050	8620.050	8620.051	8620.051	8620.052	8620.053	886
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8620.070	8620.071	8620.071	8620.072	8620.070	8620.071	887
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8620.060	8620.060	8620.061	8620.061	8620.062	8620.063	886
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8620.080	8620.081	8620.081	8620.082	8620.080	8620.081	887
Levelling feet		4 pc(s).	8100.780	8100.780	8100.780	8100.780	8100.780	8100.780	892
Comfort handle for lock inserts		1 pc(s).	8611.330	8611.330	8611.330	8611.330	8611.330	8611.330	938
Comfort handle for profile half-cylinders		1 pc(s).	8611.340	8611.340	8611.340	8611.340	8611.340	8611.340	938
Lock inserts		1 pc(s).	see page	see page	see page	see page	see page	see page	941, 942
180° hinges		4 pc(s).	8701.180	8701.180	8701.180	8701.180	8701.180	8701.180	951
Punched section with mounting flange, 14 x 39 mm, for door		4 pc(s).	8619.720	8619.720	8619.730	8619.730	8619.750	8619.720	952
Wiring plan pocket, depth 35 mm		1 pc(s).	4116.500	4116.500	4118.500	4118.500	–	4116.500	955
Wiring plan pocket, depth 90 mm		1 pc(s).	4116.000	4116.000	4118.000	4118.000	4124.000	4116.000	955
Door stay		5 pc(s).	4583.000	4583.000	4583.000	4583.000	4583.000	4583.000	956
Door stay for escape routes		1 pc(s).	4583.500	4583.500	4583.500	4583.500	4583.500	4583.500	956
Ride-up roller		10 pc(s).	4538.000	4538.000	4538.000	4538.000	4538.000	4538.000	956
Adaptor rail VX to fit enclosure height		4 pc(s).	8617.750[2)]	8617.750	8617.750	8617.751	8617.750	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth		4 pc(s).	8612.040	8612.050	8612.050	8612.060	8612.040	8612.050	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth		4 pc(s).	8612.140	8612.150	8612.150	8612.160	8612.140	8612.150	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]		4 pc(s).	8617.110	8617.120	8617.120	8617.130	8617.110	8617.120	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]		4 pc(s).	8617.130	8617.130	8617.140	8617.140	8617.150	8617.160	991
Punched rail 18 x 39 mm for the enclosure depth[1)]		4 pc(s).	8617.700	8617.710	8617.710	8617.720	8617.700	8617.710	993
Support strip for the outer level for enclosure depth		20 pc(s).	4694.000	4695.000	4695.000	4696.000	4694.000	4695.000	994
Support strip for the inner level for enclosure depth		20 pc(s).	4309.000	4596.000	4596.000	8800.130	4309.000	4596.000	994
C rail 30/15, for the enclosure width		6 pc(s).	4944.000	4944.000	4945.000	4945.000	4946.000	4947.000	996
Support rail 48 x 26 mm, for the enclosure width[1)]		2 pc(s).	8617.800	8617.800	8617.810	8617.810	8617.820	8617.830	996
LED system light			see page	see page	see page	see page	see page	see page	1014
Earth straps			see page	see page	see page	see page	see page	see page	1033
Cable entry plate			8619.800	8619.800	8619.801	8619.801	8619.802	8619.803	1044
		Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable entry grommets	8 cables, max. Ø 13 mm	25 pc(s).	4316.000	4316.000	4316.000	4316.000	4316.000	4316.000	1044
	3 cables, max. Ø 21 mm	25 pc(s).	4317.000	4317.000	4317.000	4317.000	4317.000	4317.000	1044
	1 cable, max. Ø 47 mm	25 pc(s).	4318.000	4318.000	4318.000	4318.000	4318.000	4318.000	1044
Connector grommets		10 pc(s).	4311.000	4311.000	4311.000	4311.000	4311.000	4311.000	1044
Section for cable entry, centre			8618.800	8618.800	8618.801	8618.801	8618.802	8618.803	1045
		Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Section for cable entry, rear			8618.810	8618.810	8618.811	8618.811	8618.812	8618.813	1045
		Packs of	2 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	4 pc(s).	4 pc(s).	
Cable duct			see page	see page	see page	see page	see page	see page	1058
Cable clamp rail, right angle section		2 pc(s).	8619.410	8619.410	8619.420	8619.420	8619.430	8619.440	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986
[2)] The VX adaptor rail for 1800 mm high enclosures 8617.750 can be cut to length accordingly for use in 1600 mm high enclosures

Free-standing enclosure system VX SE

System accessories Page 877 **VX SE stainless steel** Page 142

Material and surface finish:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Door: Stainless steel 1.4301 (AISI 304), 2 mm, exterior brushed, grain size 400
- Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm, exterior brushed, grain size 400
- Mounting plate: Sheet steel, 3 mm, zinc-plated, passivated
- Base plate: Stainless steel 1.4301 (AISI 304), 1.5 mm

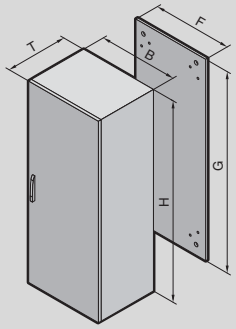
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure, solid top and sides
- Door(s)
- Door hinged on the right, may be swapped to the left
- Rear panel, detachable
- Mounting plate
- Base, solid
- Lock: 3 mm double-bit
- 2 punched rails 18 x 39 mm

Note:
- Due to the hardness of the material, we recommend using metal multi-tooth screw 2486.400 for the interior installation

Approvals:
- UL
- cUL



IP 66/NEMA 4X, stainless steel

Width (B) mm	Packs of	600	800	800	Page
Height (H) mm		1600	1800	2000	
Depth (T) mm		400	500	600	
Mounting plate width (F) mm		499	699	699	
Mounting plate height (G) mm		1496	1696	1896	
Model No.	1 pc(s).	**5850.680**	**5852.680**	**5853.680**	
Accessories					
Base/plinth corner pieces with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8620.050	8620.051	8620.051	886
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8620.070	8620.071	8620.072	887
Base/plinth corner pieces with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8620.060	8620.061	8620.061	886
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8620.080	8620.081	8620.082	887
Levelling feet	4 pc(s).	8100.780	8100.780	8100.780	892
Comfort handle for lock inserts	1 pc(s).	8611.330	8611.330	8611.330	938
Comfort handle for profile half-cylinders	1 pc(s).	8611.340	8611.340	8611.340	938
Lock inserts	1 pc(s).	see page	see page	see page	941, 942
Punched section with mounting flange, 14 x 39 mm, for door	4 pc(s).	8619.720	8619.730	8619.730	952
Wiring plan pocket, depth 90 mm	1 pc(s).	4116.000	4118.000	4118.000	955
Door stay	5 pc(s).	4583.000	4583.000	4583.000	956
Adaptor rail VX to fit enclosure height	4 pc(s).	8617.750[2)]	8617.750	8617.751	995
Punched section with mounting flange 17 x 73 mm for the inner level, in the depth	4 pc(s).	8612.040	8612.050	8612.060	992
Punched section with mounting flange 17 x 73 mm for the outer level, in the depth	4 pc(s).	8612.140	8612.150	8612.160	992
Punched section with mounting flange 23 x 64 mm for the inner level, in the depth[1)]	4 pc(s).	8617.110	8617.120	8617.130	991
Punched section with mounting flange 23 x 64 mm for the inner level, in the width[1)]	4 pc(s).	8617.130	8617.140	8617.140	991
LED system light		see page	see page	see page	1014
Earth straps		see page	see page	see page	1033
Cable clamp rail, right angle section	2 pc(s).	8619.410	8619.420	8619.420	1059

[1)] The VX adaptor rail is required for installation in the vertical enclosure sections. Overview of VX SE compatible rail systems, see page 986
[2)] The VX adaptor rail for 1800 mm high enclosures 8617.750 can be cut to length accordingly for use in 1600 mm high enclosures

One-piece consoles

System accessories Page 877 **Monitors, keyboards** Page 1109 **Climate control** Page 449 **One-piece consoles, sheet steel** Page 161

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Door or double door and console lid: Stainless steel 1.4301 (AISI 304), 2.0 mm
- Mounting plate: Sheet steel, 3.0 mm

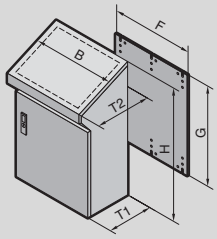
Surface finish:
- Enclosure, door, console lid and gland plates: Brushed, grain 400
- Mounting plate: Zinc-plated

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid back and sides
- Door or double door at front, with locking rod
- Console lid with lid stay and cam lock latched in the enclosure
- Locks with double-bit insert
- Gland plates, divided
- Mounting plate

Approvals:
- UL
- CSA
- TÜV
- Russian Maritime Register of Shipping



Stainless steel

Width (B) mm	Packs of	600	800	1000	1200	Page
Height (H) mm		960	960	960	960	
Depth, Bottom (T1) mm		400	400	400	400	
Depth, Top (T2) mm		480	480	480	480	
Mounting plate width (F) mm		530	730	930	1130	
Mounting plate height (G) mm		780	780	780	780	
Model No.	1 pc(s).	**2683.600**	**2684.600**	**2685.600**	**2686.600**	
Number of doors		1	1	2	2	
Weight kg		52.0	65.2	79.5	90.3	
Accessories						
Base/plinth, complete	1 pc(s).	2865.000	2869.000	2867.000	2870.000	890
Comfort handle AX	1 pc(s).	2435.300	2435.300	2435.300	2435.300	939
Support rail TS 35/15	6 pc(s).	4934.000	4935.000	4933.000	4937.000	997
LED system light		see page	see page	see page	see page	1014
Hose-proof hood		see page	see page	see page	see page	538

PC enclosure system

System accessories Page 877 **Monitors, keyboards** Page 1109 **PC enclosure system, sheet steel** Page 164

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Rear door: Stainless steel 1.4301 (AISI 304), 2.0 mm
- Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
- Monitor field: Single-pane safety glass, 4 mm

Surface finish:
- Brushed, grain 400

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Supply includes:
- Enclosure, solid top and sides
- Rear door with locking rod
- Glazed door at the top, latched from the inside
- Component shelf
- Keyboard drawer with fold-down front door for handrest and mouse pad support
- Lock insert, lock no. 3524 E
- Bottom door with locking rod
- Gland plates, divided

Approvals:
- UL
- cUL

Stainless steel

Width mm	Packs of	600	Page
Height mm		1600	
Depth mm		630	
Model No.	1 pc(s).	**4650.150**	
Weight kg		115.0	
Accessories			
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm, stainless steel	2 pc(s).	8620.050	886
Base/plinth trim panels, sides, 100 mm, stainless steel	2 pc(s).	8620.072	887
Levelling feet	4 pc(s).	2859.000	893
Comfort handle		see page	938
Component shelf, pull-out	1 pc(s).	6902.960	1007
Adaptor rail	4 pc(s).	8617.760	995
Partial mounting plates	1 pc(s).	8617.550	975
Punched section with mounting flange, 23 x 89 mm, stainless steel	2 pc(s).	8100.732	991
Punched section with mounting flange, 23 x 64 mm	4 pc(s).	8617.130	991
Punched section with mounting flange, 17 x 73 mm		see page	992
LED system light		see page	1014

System accessories Page 877 **Support arm system CP 40, stainless steel** Page 188 **Hygienic Design** Page 217

Benefits:
- Resistant to high-pressure cleaning: The seal lies between two surfaces and is optimally compressed by the screw fastening.
- Suitable for clean room use: Screw fastening to comply with high standards in the food industry. With plastic stoppers on the inside or hex screws on the outside.

Material:
- Stainless steel 1.4301 (AISI 304)

Surface finish:
- Brushed, grain 400

Protection category IP to IEC 60 529:
- IP 66
- IP X9

Clean room class:
- Air purity class 1 to DIN EN ISO 14 644-1

Stainless steel

Width mm	Packs of	530	Page
Height mm		360	
Depth mm		120	
Operating housing for panel width mm		482.6	
Operating housing for panel height mm		310	
Installation depth mm		115	
Support arm connection		Top or bottom (by rotating the enclosure)	
Model No.	1 pc(s).	**6681.000**	
Weight kg		9.3	

Command panel housing with door

System accessories Page 877 **Support arm system CP 40, stainless steel** Page 188 **Hygienic Design** Page 217

Material:
– Enclosure and door: Stainless steel 1.4301 (AISI 304)
– Handle strips: Plastic approved for use with foodstuffs, dyed blue

Surface finish:
– Brushed, grain 400

Colour:
– Handle strips: similar to RAL 5002

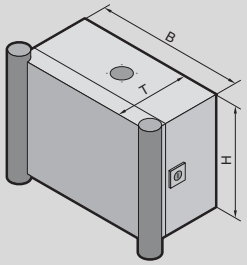
Protection category IP to IEC 60 529:
– IP 66

Protection category NEMA:
– NEMA 12

Supply includes:
– Enclosure of all-round solid construction
– Cut-out and reinforcement for support arm system CP 40 stainless steel
– Fastener with guide plate
– Door with sealing frame and side handle strips
– Lock: 3 mm double-bit

Note:
– The support arm connection and door hinge may be swapped over by rotating the enclosure
– 3 mm double-bit lock insert may be exchanged for 41 mm lock inserts, plastic handles and T handles, type C

Approvals:
– UL
– CSA
– TÜV



Stainless steel

Width (B) mm	Packs of	300	400	400	600	Page
Height (H) mm		300	300	400	400	
Depth (T) mm		150	150	150	150	
Model No.	1 pc(s).	**6535.010**	**6536.010**	**6538.010**	**6539.010**	
Weight kg		6.3	7.5	8.8	12.1	
Accessories						
Support rail TS 35/7.5	10 pc(s).	2316.000	2317.000	2317.000	–	997
Support rail TS 35/15	10 pc(s).	–	–	–	2319.000	997
Support strip	20 pc(s).	–	4694.000	4694.000	4696.000	994

Support arm system CP 40

Optimum interaction between operation and monitoring, also available in stainless steel, see page 188

Rittal – The System.

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Ex enclosures

Ex enclosures

Stainless steel, empty enclosure with screw-fastened cover 258
Stainless steel, empty enclosure with hinged door 259
Plastic AX, empty enclosure with hinged door.....260
Accessories 261

Ex enclosures

System accessories Page 877

Applications:
- Zone 1 and 2 or 21 and 22 to 2014/34/EU
- Ambient temperature range: -30 °C...+80 °C
- The specified temperatures may be limited by the installed equipment
- Explosion protection category to EN 60 079: Equipment protection thanks to increased safety (Ex e), equipment protection thanks to enclosure (Ex tB)

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)
- Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in silicone seal

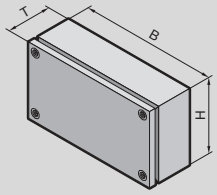
Surface finish:
- Enclosure: Exterior brushed, grain size 400

Protection category IP to IEC 60 529:
- IP 66

Supply includes:
- Enclosure
- Cover

Certificates:
- PTB 03 ATEX 1013U
- IEC Ex PTB 09.0033U

Approvals:
- ATEX
- IECEx PTB



Stainless steel, empty enclosure with screw-fastened cover

Width (B) mm	Packs of	150	200	300	300	300	400	Page
Height (H) mm		150	200	150	200	300	200	
Depth (T) mm		80	80	80	80	120	120	
Model No.	1 pc(s).	**9301.000**	**9303.000**	**9302.000**	**9304.000**	**9306.000**	**9305.000**	
Weight kg		1.3	1.8	1.8	2.4	3.9	3.6	
Accessories								
Mounting plates	1 pc(s).	1560.800	1562.800	1561.800	1563.800	1567.800	1564.800	970
Wall-mounting bracket, stainless steel	4 pc(s).	1594.010	1594.010	1594.010	1594.010	1594.010	1594.010	965
Support rails TS 35/7.5	10 pc(s).	2314.000	2315.000	2316.000	2316.000	2316.000	2317.000	997
Earth straps		see page	see page	see page	see page	see page	see page	1033

System accessories Page 877

Applications:
- Zone 1 and 2 or 21 and 22 to 2014/34/EU
- Ambient temperature range: -30 °C...+80 °C
- The specified temperatures may be limited by the installed equipment
- Explosion protection category to EN 60 079: Equipment protection thanks to increased safety (Ex e), equipment protection thanks to enclosure (Ex tB)

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)
- Door: Stainless steel 1.4301 (AISI 304), all-round foamed-in silicone seal
- Mounting plate: Sheet steel

Surface finish:
- Enclosure: Brushed, grain size 400, peak-to-valley height < 0.8 µm
- Mounting plate: Zinc-plated

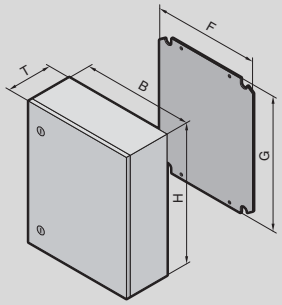
Protection category IP to IEC 60 529:
- IP 66

Protection category NEMA:
- NEMA 4X

Supply includes:
- Enclosure
- Door
- Mounting plate

Certificates:
- PTB 02 ATEX 1082U
- IEC Ex PTB 09.0035U

Approvals:
- UL
- cUL
- ATEX
- IECEx PTB



Stainless steel, empty enclosure with hinged door

Width (B) mm	Packs of	200	300	380	380	380	600	600	760	800	Page
Height (H) mm		300	380	300	380	600	600	760	760	1000	
Depth (T) mm		155	210	155	210	210	210	210	300	300	
Mounting plate width (F) mm		162	275	334	334	334	549	549	704	739	
Mounting plate height (G) mm		275	334	275	355	570	570	730	730	955	
Model No.	1 pc(s).	**9401.600**	**9409.600**	**9402.600**	**9403.600**	**9404.600**	**9405.600**	**9406.600**	**9407.600**	**9408.600**	
Cam lock with 3 mm double-bit insert		1	1	1	1	2	2	2	2	2	
Reinforcement section in the door		–	–	–	–	–	■	■	■	■	
Weight kg		5.0	8.1	7.8	10.1	16.9	25.2	32.5	44.1	57.8	
Accessories											
Wall mounting bracket	4 pc(s).	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	2433.000	261
Support rails TS 35/7.5	10 pc(s).	2315.000	2316.000	–	–	–	–	–	–	–	997
Support rails TS 35/15	10 pc(s).	–	–	–	–	–	2319.000	2319.000	–	–	997
Earth straps		see page	see page	see page	see page	see page	see page	see page	see page	see page	1033

Ex enclosures

System accessories Page 877

Applications:
- Zone 1 and 2 or 21 and 22 to 2014/34/EU
- Ambient temperature range: -30 °C...+80 °C
- The specified temperatures may be limited by the installed equipment
- Explosion protection category to EN 60 079: Equipment protection thanks to increased safety (Ex e), equipment protection thanks to enclosure (Ex tB)

Material:
- Enclosure: Fibreglass-reinforced unsaturated polyester, surface resistance: < 10^9 Ω
- Door: Fibreglass-reinforced unsaturated polyester, surface resistance: < 10^9 Ω all-round foamed-in silicone seal
- Mounting plate: Sheet steel, zinc-plated, passivated

Colour:
- RAL 9011

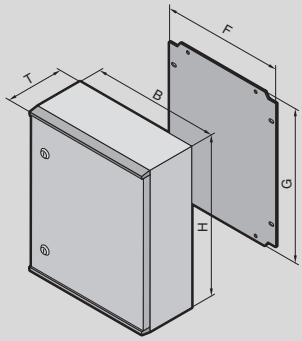
Protection category IP to IEC 60 529:
- IP 66

Supply includes:
- Enclosure
- Door
- Mounting plate

Certificates:
Available on the Internet

Approvals:
- ATEX
- IECEx PTB

Further approvals can be found



Plastic AX, empty enclosure with hinged door

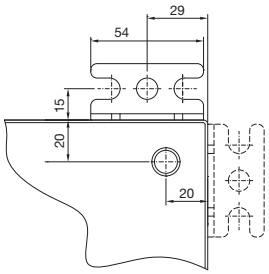
Width (B) mm	Packs of	250	300	400	400	500	600	600	800	Page
Height (H) mm		350	400	400	600	500	600	800	1000	
Depth (T) mm		150	200	200	200	300	200	300	300	
Mounting plate width (F) mm		155	205	305	305	405	505	505	705	
Mounting plate height (G) mm		275	325	325	525	425	525	725	925	
Model No.	1 pc(s).	**9202.100**	**9203.100**	**9204.100**	**9205.100**	**9207.100**	**9206.100**	**9208.100**	**9209.100**	
Cam lock with 3 mm double-bit insert		1	2	2	2	2	2	3	3	
Weight kg		4.4	6.4	7.8	11.2	13.3	15.7	22.8	34.6	
Accessories										
Wall mounting bracket	4 pc(s).	1485.500	1485.500	1485.500	1485.500	1485.500	1485.500	1485.500	1485.500	261
Screw for interior installation	50 pc(s).	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	1485.300	261
Pole clamp	2 pc(s).	2584.110	2584.110	2584.110	2584.110	2584.110	2584.110	2584.110	2584.110	968
Universal bracket	4 pc(s).	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	1485.200	97
Door stay AX	2 pc(s).	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	1485.100	96
LED system light		–	–	2500.100	2500.100	2500.100	2500.100	2500.110	2500.110	1014

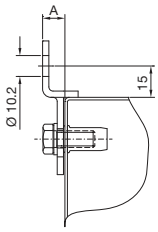
Wall mounting bracket

For the attachment of Ex empty enclosures, stainless steel.

Supply includes:
– Assembly parts for mounting on the enclosure

Material	Wall distance (A) mm	Packs of	**Model No.**
Stainless steel 1.4301 (AISI 304)	10	4 pc(s).	**2433.000**





Wall mounting bracket

for AX plastic
For attachment to the wall, only possible from the outside of the enclosure.

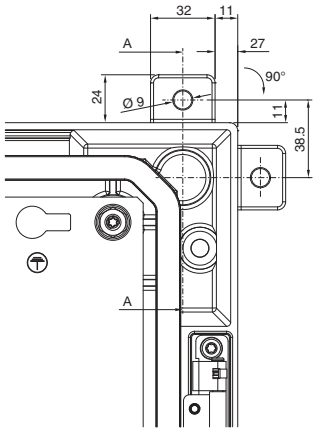
Material:
– Fibreglass-reinforced polyamide[1)]

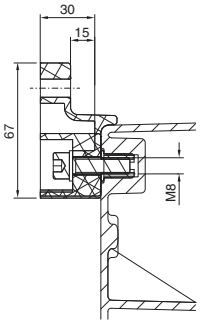
Supply includes:
– Assembly parts for mounting on the enclosure

Colour	Packs of	**Model No.**
RAL 7035	4 pc(s).	**1485.400**
RAL 9011	4 pc(s).	**1485.500[1)]**

[1)] With graphite additive for Ex applications

Section A – A





Screw for interior installation

for AX plastic
For mounting accessories on the mounting bosses in the enclosure body.

Drive: Multi-tooth 25

Dimensions: 5 x 14 mm

Type of screw	Packs of	**Model No.**
Pan head screw, self-tapping	50 pc(s).	**1485.300**

Rittal – The System.

Faster – better – everywhere.

Outdoor

Outdoor enclosures

Basic enclosures 266
Wall-mounted enclosures 269

Outdoor project solutions

Toptec.....270
Multifunctional enclosures.....271

At home in any outdoor application

Energy

- Mounting benefits – Flexible basic enclosure, with doors front and rear on request, for rapid interior installation and optimum on-site accessibility
- Variable base mounting – Easy to plan, because it is suitable for all site conditions: Concrete base/plinth, base plate, plastic base/plinth

Water industry

- The ideal material – Powder-coated aluminium for a long service life and corrosion resistance, plus fast machining of cut-outs
- Fast interior installation – All-round 25 mm system punchings and an extensive range of system accessories help to reduce assembly time

Telecommunications

- Fully integrated system solutions for mobile communications and broadband network installation reduce planning complexity
- Vandal-resistant – Enclosure solutions up to resistance class RC4

Telematics

- Optimum protection against corrosion – Coordinated mix of materials for heavily contaminated roadside environments helps to extend servicing intervals

Outdoor Basic enclosures – Flexibility included

Systematic roof concept

Multi-functional benefits:

- Roof projection increases the proportion of shading
- Air exchange with all-round louvred grilles
- Fan for active climate control has an IP-compatible covering

Integral transport options

- Eyebolts on the inner roof, concealed by the rain canopy
- For transporting the fully configured unit by crane

Systematic installation benefits

- System punchings in the base ensure system compatibility
- Extensive range of system-compatible accessories for individual installations

Outdoor Basic enclosures

Climate control Page 449 **Outdoor housing** Page 958 **Cable routing** Page 1044

Outdoor enclosure with 100 mm transport plinth and rain canopy with projections on all sides.

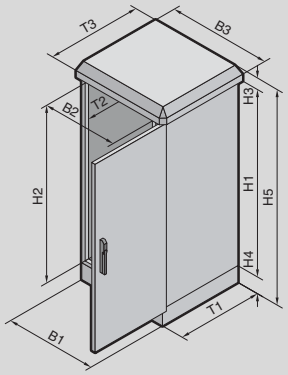
Material:
– Aluminium AlMg3

Surface finish:
– Powder-coated
– UV-resistant pure polyester

Colour:
– RAL 7035

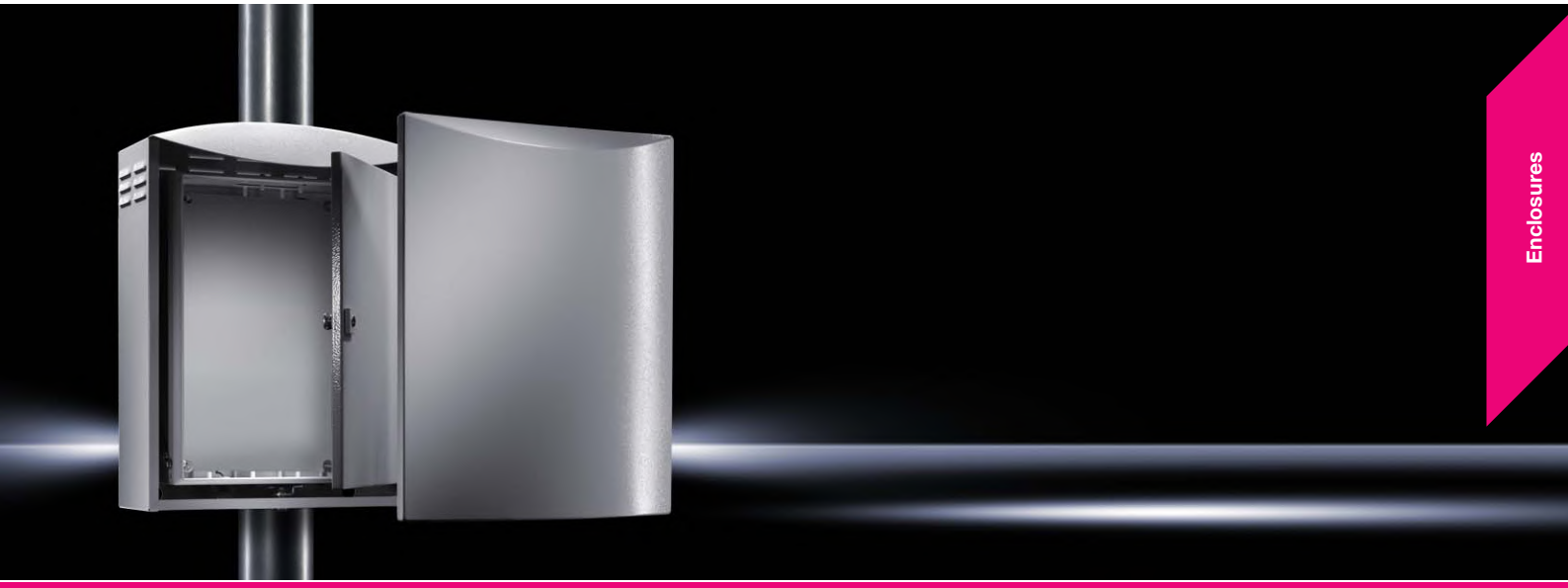
Protection category IP to IEC 60 529:
– IP 55
– NEMA 3R

Supply includes:
– Single-walled outdoor enclosure, fully preconfigured
– Basic enclosure with three-part gland plate
– 25 mm system punchings in the roof, base, front and in the enclosure depth
– Front door(s) with door stay, swing lever handle and profile half-cylinder, lock BJ 20027
– Transport plinth with screw-fastened trim panels front and rear
– Enclosure width 1200 mm has two 600 mm wide mounting panels
– Rain canopy



Single-walled

Width (B1) mm	Packs of	600	800	1200	Page
Height (H1) mm		1200	1200	1200	
Depth (T1) mm		500	500	500	
Clearance width (B2) mm		512	712	512	
Clearance height (H2) mm		1112	1112	1112	
Clearance depth (T2) mm		449	449	449	
Rain canopy width (B3) mm		650	850	1250	
Rain canopy height (H3) mm		55	55	55	
Rain canopy depth (T3) mm		550	550	550	
Base/plinth height (H4) mm		100	100	100	
Overall height (H5) mm		1355	1355	1355	
Model No.	1 pc(s).	**9783.530**	**9783.610**	**9784.540**	
Door(s)		1	1	2	
Weight kg		38.0	49.5	66.0	
With removable centre bar, 2 lockable doors		–	–	■	
Accessories					
Mounting plate	1 pc(s).	9765.092	9765.095	9765.191	981
Enclosure heater	1 pc(s).	3105.400	3105.400	3105.400	531
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	547
Profile half-cylinders	1 pc(s).	9785.040	9785.040	9785.040	942
Mounting angles, 482.6 mm (19")	2 pc(s).	**7688.000**	**7688.000**	**7688.000**	
Installation bracket for mounting angles, 482.6 mm (19")	2 pc(s).	**7696.000**	**7698.000**	**7696.000**	
LED system light		see page	see page	see page	1014



Compact enclosures AX, stainless steel Page 236 **Hygienic Design** Page 217 **Outdoor housing** Page 958

Outdoor enclosures for wall or pole mounting. Enclosure-within-an-enclosure concept, outer enclosure with cut-out at the bottom and integrated louvres on the rear panel and side panels for ventilation.

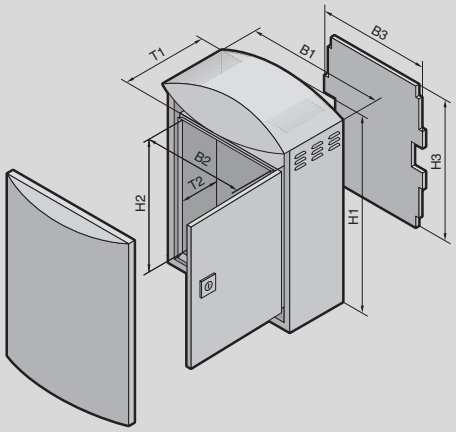
Material:
– Enclosure and mounting plate: Aluminium, AlMg3
– Door, inner enclosure: Stainless steel 1.4301 (AISI 304)

Surface finish:
– Enclosure: Powder-coated, UV-resistant pure polyester

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Twin-walled outdoor enclosure, fully preconfigured
– Inner enclosure with mounting plate, gland plate and security lock (CS 9791.045 with 2 security locks)
– Mounting bracket for enclosure internal thermostat or hygrostat
– Outer enclosure with designer cover and security lock 3524 E
– 2 C rails on the rear panel



Twin-walled

Outer enclosure						
Width (B1) mm	Packs of	370	420	530	630	Page
Height (H1) mm		522	560	700	780	
Depth (T1) mm		210	210	265	380	
Inner enclosure						
Width (B2) mm		300	350	460	580	
Height (H2) mm		400	440	565	580	
Depth (T2) mm		170	170	220	333	
Clearance width mm		280	330	440	560	
Clearance height mm		380	420	545	560	
Clearance depth mm		145	145	195	308	
Mounting plate width (B3) mm		270	320	430	550	
Mounting plate height (H3) mm		380	410	535	550	
Model No.	1 pc(s).	**9791.015**	**9791.025**	**9791.035**	**9791.045**	
Accessories						
Pole clamp	2 pc(s).	2584.100	2584.100	2584.100	2584.100	968
Enclosure heater	1 pc(s).	3105.330	3105.330	3105.330	3105.330	530
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	547
Socket	2 pc(s).	2506.120	2506.120	2506.120	2506.120	1042
LED system light		see page	see page	see page	see page	1014

Toptec project solutions

The universal platform for outdoor applications

- Weather canopy – With projection on all sides
- Chimney effect of the twin-walled structure – Reduces the influence of sunlight
- Mounting benefit – Open frame structure for fast configuration, also applies to bayed variants
- Energy-efficient – The new wall-mounted cooling unit Blue e+ Outdoor can be used worldwide, thanks to its multi-voltage capability, and is suitable for use e.g. with Toptec project solutions

Design

Enclosure type:
– Outdoor enclosure, twin-walled

Material:
– Base frame: Stainless steel
– Enclosure panels: Aluminium
– Rain canopy: Aluminium

Project solutions with multifunctional enclosures

Your platform for telecommunications solutions

- Weather canopy with ventilation
- Gland plate with cable glands
- 482.6 mm (19″) mounting angles inside the enclosure, in stainless steel throughout
- Aluminium mounting plate
- Depending on the design, with single door/two doors, symmetrical or asymmetrical

Design

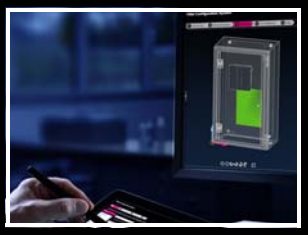
Enclosure type:
– Modular outdoor enclosure system, single- or twin-walled

Material:
– Base frame: Aluminium
– Enclosure and panels: Aluminium
– Rain canopy: Aluminium
– 482.6 mm (19″) standard field: Stainless steel

Configurators/tools/CAD data

Enclosures

Menu-prompted configurators help you to select the right enclosure and matching standard accessories. The calculated results contain the Rittal Model Numbers for your parts list definition.



Rittal Configuration System

The latest dimension in configuration for Rittal – The System.

Simply select your preferred enclosure system and launch the configuration process. Climate control components, busbars and accessories are easily added to the enclosure without specialist product know-how, thanks to the use of plausibility-checked components. The configuration progress can be followed at any time with 3D visualisation. Cut-outs e.g. for fan-and-filter units, switches, connectors and cable entries are easily planned and positioned directly on the enclosure with the Rittal Configuration System. Parts lists, drawings and technical documents for your configuration are generated automatically.

Benefits:

- Plausibility-checked, error-free product configuration
- Control of the ongoing configuration status with 3D visualisation
- Simple planning of modifications and machining of enclosures and housings
- Order configured products directly from the Rittal online shop
- Direct data transfer of the configuration results into EPLAN Pro Panel
- Free online tool – suitable for use with any standard Web browser, no login required

Note:

- Configure online at www.rittal.com/configurators

Human/machine interface

Operation and monitoring play an increasingly vital role in mechanical and plant engineering. Rittal meets the exacting requirements placed on the "packaging" of the sensitive yet powerful electronics with its integrated modular system at the human/machine interface.

Design, function and ergonomics are the distinguishing features of this product range.
Rittal provides free Internet planning tools to assist with planning and engineering of the command panels and support arm systems.
In this way, the right product for your customer application is achieved simply, quickly and reliably.

Command panel configurators

for aluminium command panels

The online configurators for Comfort Panel and Optipanel allow you to configure individual, perfectly coordinated panel solutions. Using a catalogue of questions, the configurators automatically guide you through the individual selection masks until you have compiled a complete system. The system also has a built-in smart consistency check to ensure that your configuration is complete and error-free.

Benefits:
- Select the enclosure to match the HMI panel used (the integral database contains a variety of commercial panels from various manufacturers)
- Navigate easily through the catalogue of questions
- Quickly compile the required features
- Request a quote based on the selected data records
- Request a 3D CAD model for integration into the system design

Note:
- Optipanel and Comfort Panel: Configure online at www.rittal.com/configurators

Support arm configurator

for CP 40/60/120/180, support section, height-adjustable

The tool is able to precisely define the correct system using important user-specific parameters such as the jib length, enclosure weight or required cable cross-sections.

Benefits:
- Individual assembly tailored to the requirements of the application
- Built-in consistency check
- The outcome is a plausibility-checked parts list plus CAD data for the configured components
- Order directly from the online shop

Note:
- Configure online at www.rittal.com/configurators

Configurators/tools/CAD data

CAD data

Greater efficiency in plant design
Whichever CAD system you use, 2D and 3D CAD data provide effective support with the efficiency and productivity of your plant design work.

It includes both 2D and 3D drawings for all Rittal items plus an extensive range of system accessories.

Retrieval options:
– CAD data online: Request data from the product page on the Rittal website
– Online: Data via the Web platform "PARTcommunity"
– Online: As an app

Benefits for users of CAD data:
– All CAD data may be transferred into any commercially available CAD system, thanks to the intelligent, native 2D/3D multiCAD-compatible format.
– The accurately detailed and validated drawings allow users to create design drawings with optimum planning confidence, in a fraction of the time taken for conventional design, by simply remodelling.
– Thanks to the freely selectable level of detail in CAD models, these may be represented in a greatly simplified format, enabling huge performance enhancements among users.

Note:
– Fast online access to original data in all commercially available CAD formats directly from the Model Number

Online conversion assistant for small enclosures KX and compact enclosures AX

Convert quickly and easily with the parts list converter
– Load your complete parts list based on enclosure types KL, EB, BG, AE and CM including accessories into the conversion assistant and convert to AX/KX
– Quick search: Individual Model Numbers are also easily located using the search box
– Generate CSV parts lists for uploading into the EPLAN Data Portal basket

Benefits:
– Save time with fast, simple conversion of entire parts lists
– Directly recode project parts lists and transfer all project items into your own item database via the EPLAN Data Portal basket. There is no need to download individual macros into the item database.

Note:
– Convert directly online at www.rittal.com/ax

Product Scan app

All product information in a single scan
– Fast access to all relevant product information by scanning the QR code on the product
– Create scan lists and export the lists for subsequent use
– Track scanned products in your scan history

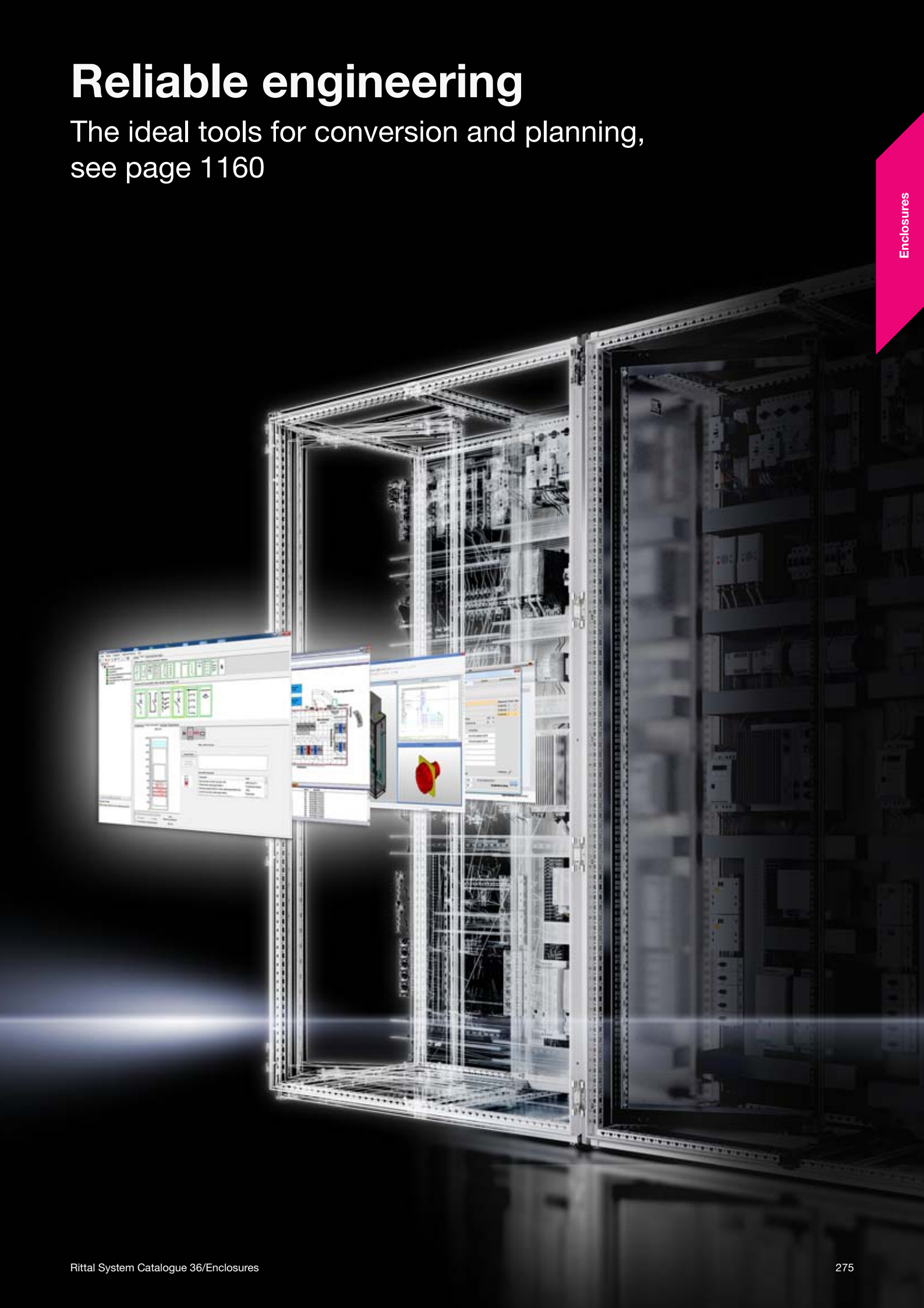
Note:
– Downloaded free from the App Store and from the Google Play Store

Android app

iPhone app

Reliable engineering

The ideal tools for conversion and planning,
see page 1160



Rittal – The System.

Faster – better – everywhere.

ENCLOSURES **POWER DISTRIBUTION** **CLIMATE CONTROL**

FRIEDHELM LOH GROUP

POWER DISTRIBUTION

RiLine busbar systems

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VX25 Ri4Power

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Rittal – The System.

Faster – better – everywhere.

	RiLine busbar systems			
	The tried-and-trusted, super-flexible power distribution systems for individual requirements. From small power distributors, to individual switchgear and controlgear, through to heavy-current power distributors for infrastructure and industry applications. Simple, secure assembly plus user-friendly planning with design verification are the distinguishing features of these systems.			
Busbar system	RiLine Compact	Mini-PLS	RiLine PLS/flat copper bars	
Bar centre distance mm	–	40	60	
Rated current A up to	125	250	800, 1600	
Product characteristics	■ Contact hazard-protected board with integral busbars for the safe accommodation and contacting of components ■ The board and all components are simply top-mounted; no tools required ■ Suitable for AC and DC applications	■ Space-saving design with full-surface top-mounting of the busbar supports and bar connector elements ■ Simple component installation via plug and lock action from the front ■ Optimum contact hazard protection with all-round encapsulation	■ Thanks to the special styling of the PLS special busbars, top-mounting with components in the support area is not a problem ■ Optimum contact hazard protection with all-round encapsulation ■ Suitable for AC and DC applications	
From page	282	294	300	

	VX25 Ri4Power		
	The tested complete solution – Enclosure and bar system. Mutual interference between electrical equipment in low-voltage switchgear systems has already been tested to IEC 61 439 and confirmed with a design verification.	Modular system for low-voltage switchgear with design verification to IEC 61 439-1/-2 and DIN EN 61 439-1/-2 plus power distributors and structured system solutions for switchgear with 1-4b Form separation.	ISV distribution enclosures for standard-compliant power supply in buildings and industry. Flexible configuration with practical power distribution modules.
	Flat copper busbars	Flat copper busbars	Flat copper busbars
	185	60, 70, 80, 185	60, 100, 185
	2100	6300	–
	■ Supports top-mounting of the busbar supports with components on the cover system pitch pattern ■ Integral busbar shielding in the cover section to prevent accidental arcing ■ Top-mounting of the cover section and quick retrofitting of components without removing the cover section	■ Tested system solutions to the internationally valid standard IEC 61 439-1 and simple creation of the design verification ■ High levels of short-circuit withstand strength up to I_{cw} 100 kA for 1 sec./I_{pk} 220 kA ■ Tested accidental arcing protection to IEC 61 641	■ Distribution enclosures as wall-mounted and free-standing enclosures for individual population with modular elements
	362	391	419

Rittal – The System.

Faster – better – everywhere.

Busbar systems

RiLine Compact busbar system

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RiLine busbar system (60 mm)

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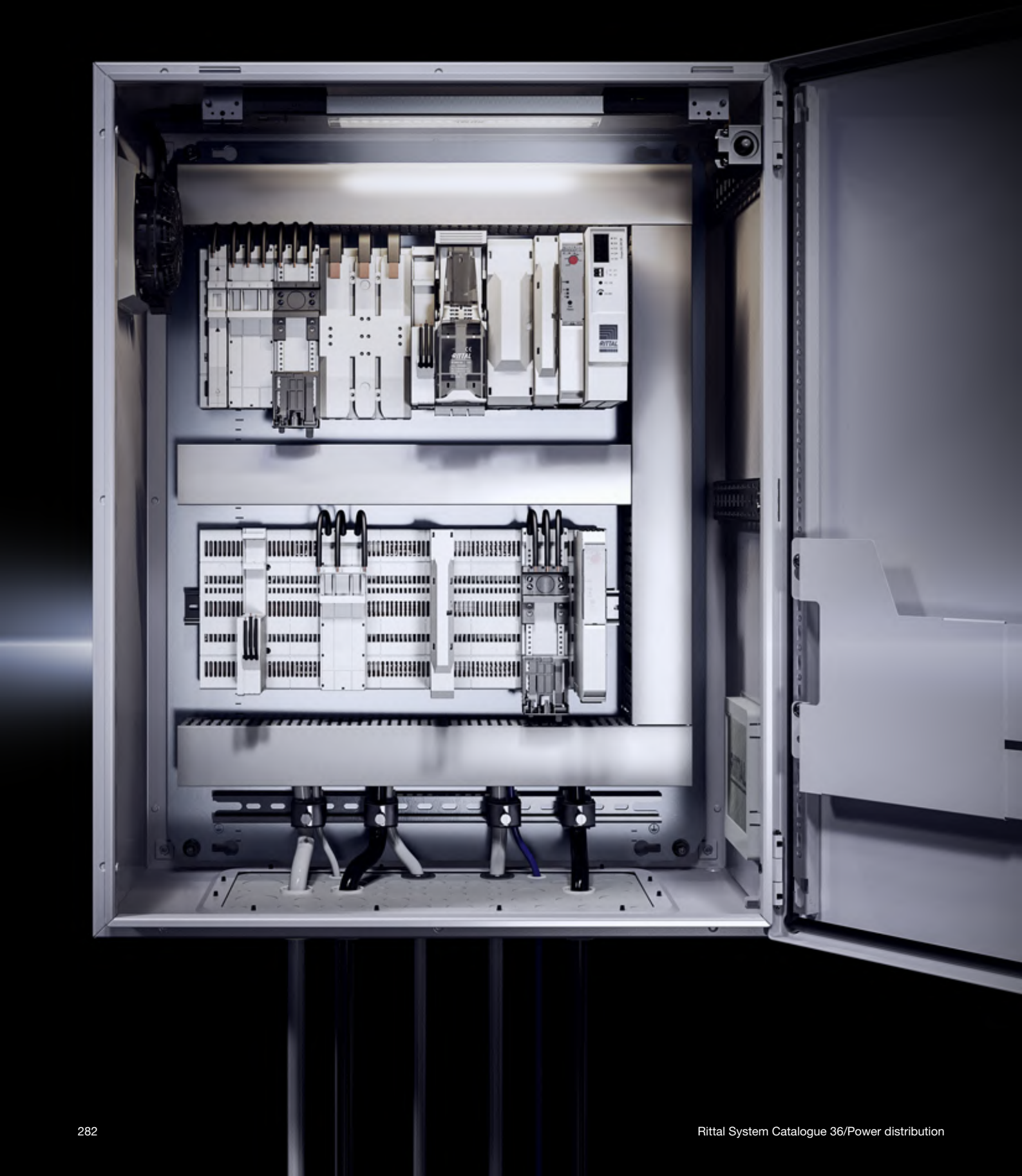
RiLine Compact – Power distribution in a confined space

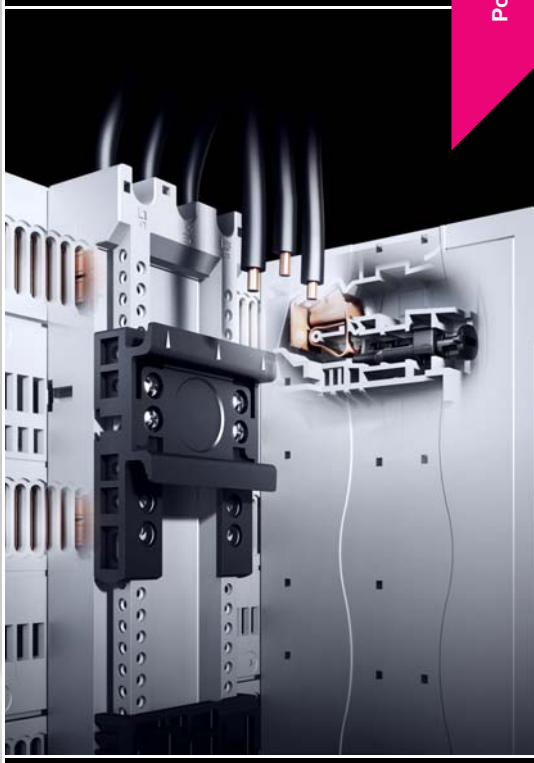


Tool-free installation made easy

- The board with integral circuit board conductors and all components are simply top-mounted; no tools required.
- Attaching the components simultaneously ensures a secure electrical connection to the all-round shock-hazard-protected board.
- The contact pitch pattern of the RiLine Compact system allows the assemblies to be positioned anywhere, in line with requirements.

Safe adaptor connection

- The RiLine Compact system adaptors support fast connection of cables and devices.
- The screw-free connection technology in the adaptor means that conductors are quickly connected, and the contact point itself is completely maintenance-free.
- The component adaptors with preassembled connection cables satisfy the special requirements of IEC 61 439 and UL.



Space-saving installation of electronic components

- The compact power supply unit provides a regulated control voltage of 24 V DC. The integral push-in terminal allows simple, fast connection of the conductors.
- The motor controller with electronic overload protection has an exceptionally space-saving design and takes up 50% less space than a conventionally wired motor controller. The hybrid technology creates a low-loss motor controller which is particularly gentle on the switching contacts. This helps to extend the service life.

Board

Connection adaptors Page 285 **Component adaptors** Page 286 **NH fuse-switch disconnectors** Page 290 **Motor controller/power pack** Page 291

Functions:
- Shock-hazard-protected busbar board for the safe accommodation and contacting of components, thanks to simple plug-in mounting
- Pre-punched pitch units in the board allow secure, fast positioning of components
- Reduces wiring work by contacting directly onto the board
- For snap-on mounting onto 35 x 7.5/15 mm busbars or for direct attachment to the mounting plate

Material:
- Polyamide
- Polycarbonate
- E-Cu
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Supply includes:
- Integral busbars

Note:
- The technical data may vary for UL applications

Standards:
- UL 508
- IEC 61 439

Approvals:
- UL

RiLine Compact, 3-pole

Rated current max. A	Packs of	125	125	Page
Rated operating voltage V		690 (AC) 600 (DC)	690 (AC) 600 (DC)	
Number of poles		3-pole	3-pole	
Max. pitch units @ 45 mm		5	9	
Width mm		225	405	
Height mm		160	160	
Depth mm		45.1	45.1	
Model No.	1 pc(s).	**9635.000**	**9635.010**	

Board Page 284 **Component adaptors** Page 286 **NH fuse-switch disconnectors** Page 290 **Motor controller/power pack** Page 291

Functions:
– To supply power to the board

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– The technical data may vary for UL applications

Approvals:
– UL

Rated current max. 80 – 125 A, 3-pole

Rated current max. A	Packs of	80	125	Page
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	
Number of poles		3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	
Type of connection		Spring terminal	Box terminal	
Connection of round conductors, fine wire without wire end ferrule mm²		1.5 - 16	6 - 50	
Connection of round conductors, fine wire with wire end ferrule mm²		1.5 - 16	6 - 50	
Connection of round conductors, multi-wire mm²		1.5 - 16	6 - 50	
Connection of round conductors, single-wire mm²		1.5 - 10	6 - 50	
Connection of round conductors		AWG 6 - 16	AWG 1 - 10	
When using fine-wire round conductors 16 mm² with wire end ferrule, we recommend the following crimping tools: Rittal 4054.004, Weidmüller PZ 16, Phoenix Contact Crimpfox 25R		■	–	
Can be used as a central infeed or as a longitudinal connector for two bayed boards		–	■	
Width mm		22.5	45	
Height mm		160	160	
Depth mm		115.5	92.5	
Model No.	4 pc(s).	**9635.200**	**9635.210**	

Component adaptors

Board Page 284 **Connection adaptors** Page 285 **NH fuse-switch disconnectors** Page 290 **Motor controller/power pack** Page 291

Functions:
– For mechanical attachment and direct contacting of electrical equipment on the board

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

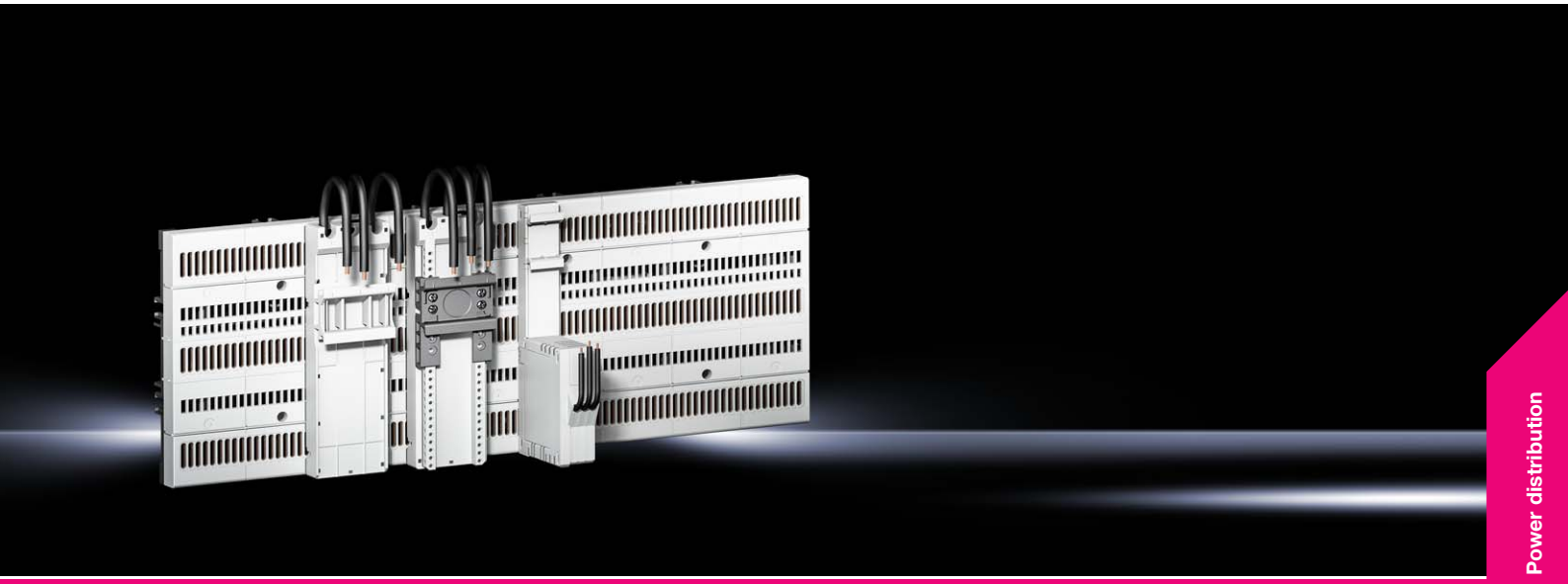
Note:
– Different adaptor versions are required depending on the preferred phase connection
– The technical data may vary for UL applications

Approvals:
– UL

Rated current max. 16 – 63 A, 1-pole

Design	Packs of	L1	L2	L3	L1	L2	L3	Page
Rated current max. A		16	16	16	63	63	63	
Rated operating voltage V, ~		690 (AC), 1~	690 (AC), 1~	690 (AC), 1~	690 (AC), 1~	690 (AC), 1~	690 (AC), 1~	
Number of poles		Single-pole	Single-pole	Single-pole	Single-pole	Single-pole	Single-pole	
Connection cables, Design		AWG 14	AWG 14	AWG 14	AWG 8	AWG 8	AWG 8	
Connection cables, Length mm		100	100	100	100	100	100	
Support rails Qty/height mm		1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	
Support rail version		static	static	static	static	static	static	
Width mm		18	18	18	18	18	18	
Height mm		160	160	160	160	160	160	
Depth mm		35	35	35	35	35	35	
Model No.	6 pc(s).	**9635.371**	**9635.372**	**9635.373**	**9635.381**	**9635.382**	**9635.383**	

Component adaptors



Board Page 284 **Connection adaptors** Page 285 **NH fuse-switch disconnectors** Page 290 **Motor controller/power pack** Page 291

Functions:
– For mechanical attachment and direct contacting of electrical equipment on the board

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– The technical data may vary for UL applications

Approvals:
– UL

Rated current max. 16 – 45 A, 3-pole

Design		With integral fuse holder	Basic	Basic	Comfort	Comfort	Comfort	Comfort	Page
Fuse type (class)		CC	–	–	–	–	–	–	
Rated current max. A		16	16	32	16	25	32	45	
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Fuse size mm		10 x 38	–	–	–	–	–	–	
Connection cables, Design		AWG 14	AWG 14	AWG 10	AWG 14	AWG 12	AWG 10	AWG 8	
Connection cables, Length mm		125	120	100	160	100	160	100	
Support rails Qty/height mm		1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	
Support rail version		static	static	static	adjustable	adjustable	adjustable	adjustable	
Width mm		22.5	45	45	45	45	45	45	
Height mm		160	160	160	160	160	160	160	
Depth mm		80	34.5	34.5	34.5	34.5	34.5	34.5	
Model No.		**9635.300**	**9635.310**	**9635.320**	**9635.330**	**9635.340**	**9635.350**	**9635.360**	
	Packs of	1 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	4 pc(s).	
Accessories									
Support rail	10 pc(s).	–	–	–	9635.600	9635.600	9635.600	9635.600	293
Positioner		–	–	–	see page	see page	see page	see page	293
Extension module	8 pc(s).	–	–	–	9635.630	9635.630	9635.630	9635.630	293
Extension kit	4 pc(s).	–	–	–	9635.640	9635.640	9635.640	9635.640	293

Component support

Board Page 284 **Connection adaptors** Page 285 **NH fuse-switch disconnectors** Page 290 **Motor controller/power pack** Page 291

Functions:
– For extending the mounting options on the board when using wide equipment

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

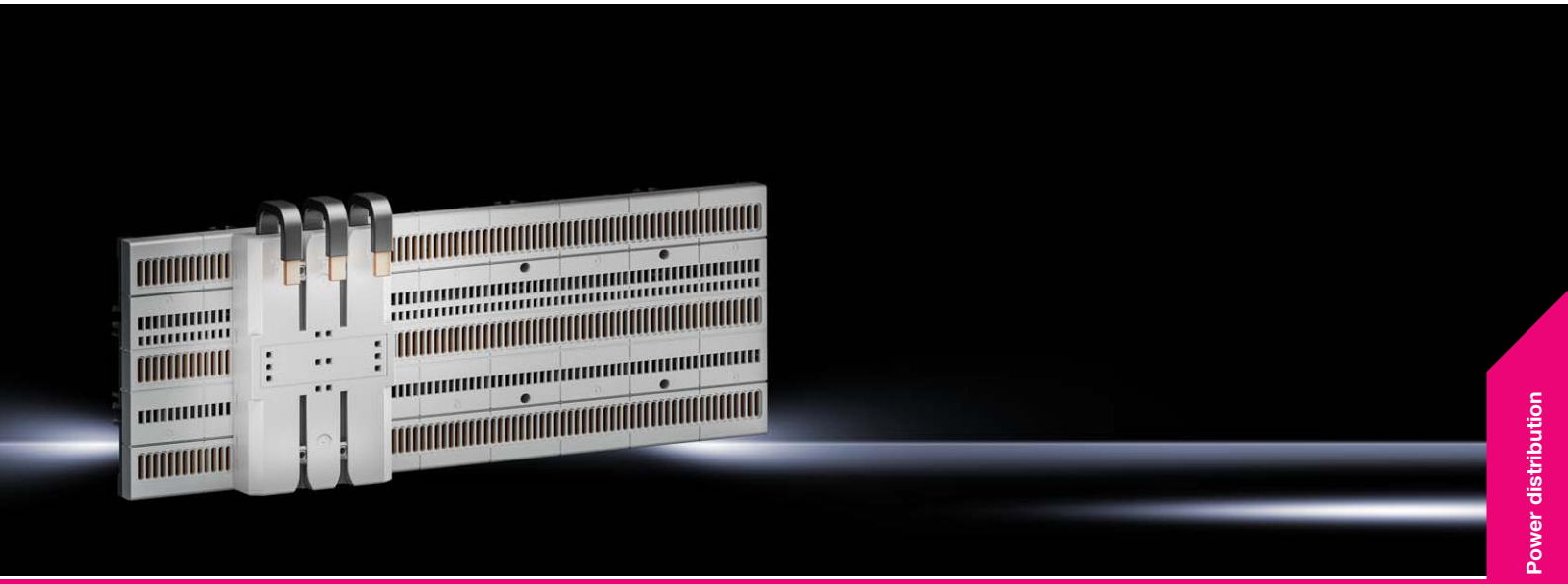
Colour:
– RAL 7035

Approvals:
– UL

without contact system

Support rails Qty/height mm	Packs of	1 / 10	Page
Support rail version		static	
Width mm		18	
Height mm		160	
Depth mm		34.5	
Model No.	6 pc(s).	**9635.390**	

Circuit-breaker component adaptors



Board Page 284 **Connection adaptors** Page 285 **NH fuse-switch disconnectors** Page 290 **Motor controller/power pack** Page 291

Functions:
- For mechanical attachment and direct contacting of circuit-breakers on the board
- Circuit-breaker is fitted using variably adjustable fixing points (M4)

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

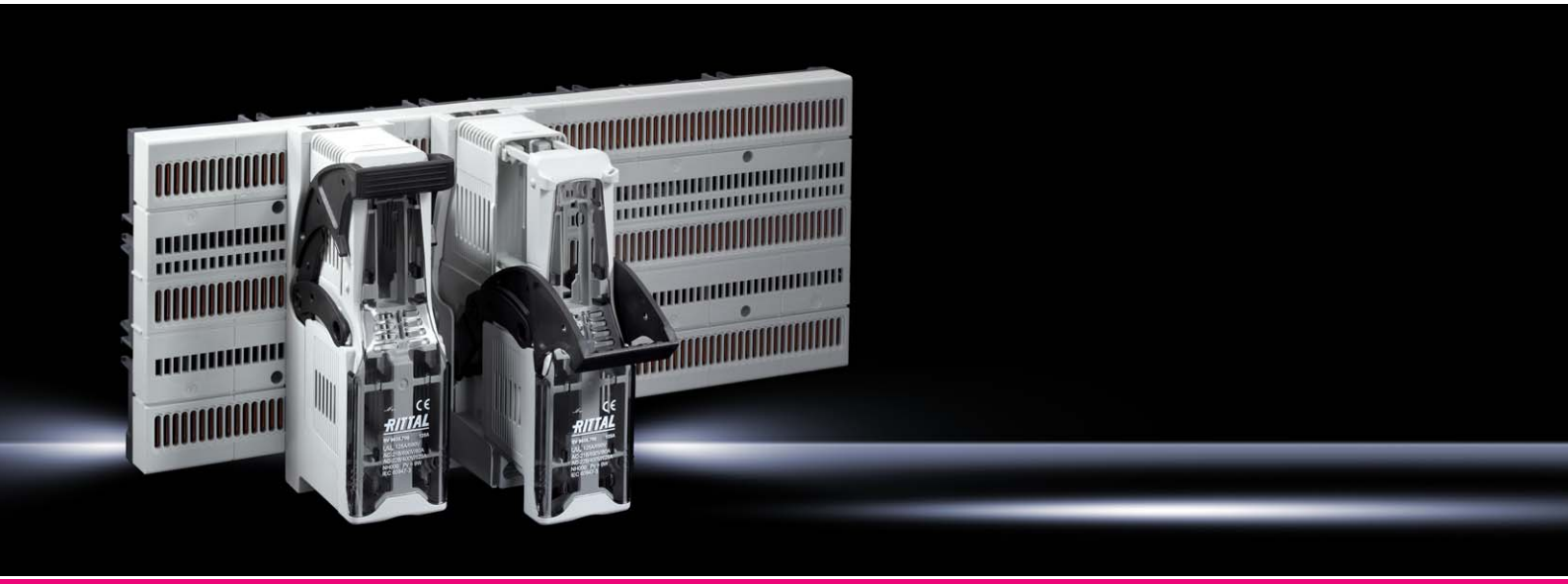
Note:
- Consider the mounting distance of the circuit-breaker when selecting the circuit-breaker component adaptor
- Depending on the circuit-breaker used, there may be a reduction in output
- The technical data may vary for UL applications

Approvals:
- UL

Rated current max. 160 A, 3-pole

Rated current max. A	Packs of	160	160	Page
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	
Number of poles		3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	
For switchgear make (model)		ABB (XT1) Allen Bradley (140G-G) Siemens (3VA10, 3VA11, 3VA51)	ABB (XT2) Allen Bradley (140G-H) Eaton (NZM1) Schneider Electric (NSXm)	
Mounting distance mm		25	30	
Width mm		90	90	
Height mm		160	160	
Depth mm		45	45	
Model No.	1 pc(s).	**9635.100**	**9635.110**	

NH fuse-switch disconnectors



Board Page 284 **Connection adaptors** Page 285 **Component adaptors** Page 286 **Motor controller/power pack** Page 291

Functions:
- To protect connected equipment
- Integral test holes provide measurement access to the contact parts of the fuse inserts
- For cable outlet at the top, the NH fuse-switch disconnector must be mounted on the board rotated through 180°

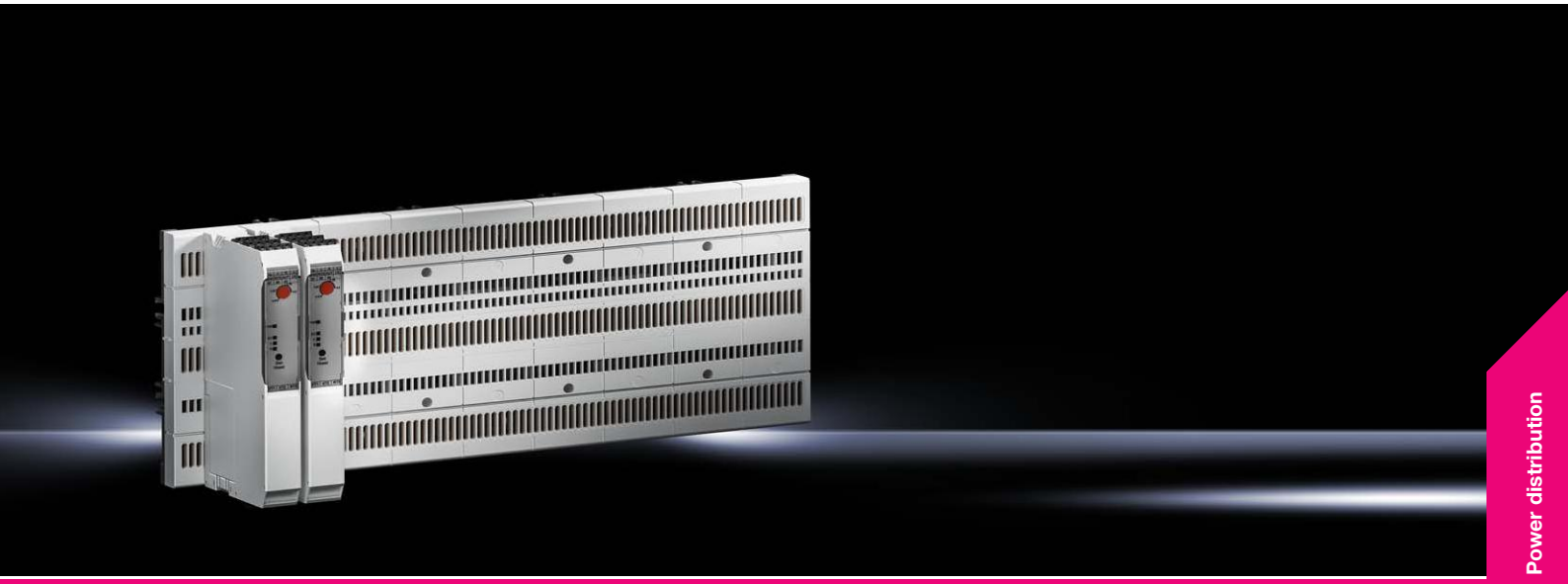
Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Colour:
- RAL 7035

Basis of test:
- IEC/DIN EN 60 947-3

Size 000

Size	Packs of	000	Page
Rated operating current max. A		125	
Rated operating voltage V, ~		690 (AC), 3~ 440 (DC), 3~	
Number of poles		3-pole	
Cable outlet		Top/bottom	
Type of connection		Box terminal	
Connection of round conductors mm^2		2.5 - 50	
Clamping area for laminated copper bars (W x H) mm		10 x 10	
Width mm		49.5	
Height mm		174.5	
Depth mm		96	
Model No.	1 pc(s).	**9635.700**	



Board Page 284 **Connection adaptors** Page 285 **Component adaptors** Page 286 **NH fuse-switch disconnectors** Page 290

Functions:
- For controlling motors as direct or reversing starters with integral over-ride protection
- The hybrid technology used facilitates frequent switching by semi-conductors with zero wear
- During operation, mechanical contacts ensure a low heat loss
- Space-saving configuration thanks to the minimal build width

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- The technical data may vary for UL applications

Rated current max. 0.6 – 9 A, 3-pole

Rated current max. A	Packs of	0.6	2.4	3	9	9	Page
Rated operating voltage V, ~, Hz		500 (AC), 3~, 50/60	500 (AC), 3~, 50/60	500 (AC), 3~, 50/60	500 (AC), 3~, 50/60	500 (AC), 3~, 50/60	
Heat loss max. W		2.8	5.5	5.5	12	12	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Fuse size mm		10 x 38	10 x 38	10 x 38	10 x 38	10 x 38	
Connection of round conductors mm^2		0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	
Safety integrity level (SIL) to IEC 61 508 - safe switch-off		–	–	3	–	3	
Safety integrity level (SIL) to IEC 61 508 - motor protection		–	–	2	–	2	
Adjustable current monitoring A		0.075 - 0.6	0.18 - 2.4	0.18 - 3	1.5 - 9	1.5 - 9	
Width mm		22.5	22.5	22.5	22.5	22.5	
Height mm		160	160	160	160	160	
Depth mm		114	114	114	114	114	
Approvals		UL	UL	–	UL	–	
Model No.	1 pc(s).	**9635.400**	**9635.410**	**9635.415**	**9635.420**	**9635.425**	

Power pack

Board Page 284 **Connection adaptors** Page 285 **Component adaptors** Page 286 **NH fuse-switch disconnectors** Page 290

Functions:
- 24 V DC control voltage supply
- Integral push-in terminal for tool-free connection of the output
- Supports parallel switching for increased output or for redundancy
- Fast commissioning, thanks to tool-free installation and automatic contacting of the power pack

Material:
- Plastic

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Protection class:
- II (in the closed enclosure)

Standards:
- EN 61 000-6-2
- IEC 61 010-1 (SELV)

Directives:
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU

Approvals:
- UL

Rated operating voltage V, ~, Hz	Packs of	400, 2~, 50/60 400, 3~, 50/60 500, 2~, 50/60 500, 3~, 50/60	Page
Output voltage V (DC)		24	
Output current (max.) A		5	
Connection of round conductors mm^2		0.2 - 4	
Width mm		36	
Height mm		160	
Depth mm		159	
Operating temperature range		-25 °C...+70 °C	
Storage temperature range		-40 °C...+85 °C	
Model No.	1 pc(s).	**9635.800**	

Support rail

for Comfort component adaptors
For attaching equipment and reverser combinations.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 9005

Width mm	Height mm	Packs of	Model No.
45	56	10 pc(s).	**9635.600**

Positioner

for Comfort component adaptors
For attaching equipment and reverser combinations.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 9005

Width mm	Height mm	For switchgear make (model)	Packs of	Model No.
45	65	Siemens (S00, S0)	10 pc(s).	**9635.610**
45	47.5	Eaton (PKZ/PKE size 0)	10 pc(s).	**9635.620**

Extension module

for Comfort component adaptors
For attaching direct starters of varying lengths.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Width mm	Height mm	Packs of	Model No.
45	40	8 pc(s).	**9635.630**

Extension kit

for Comfort component adaptors
For attaching reverser combinations with 90 mm width.

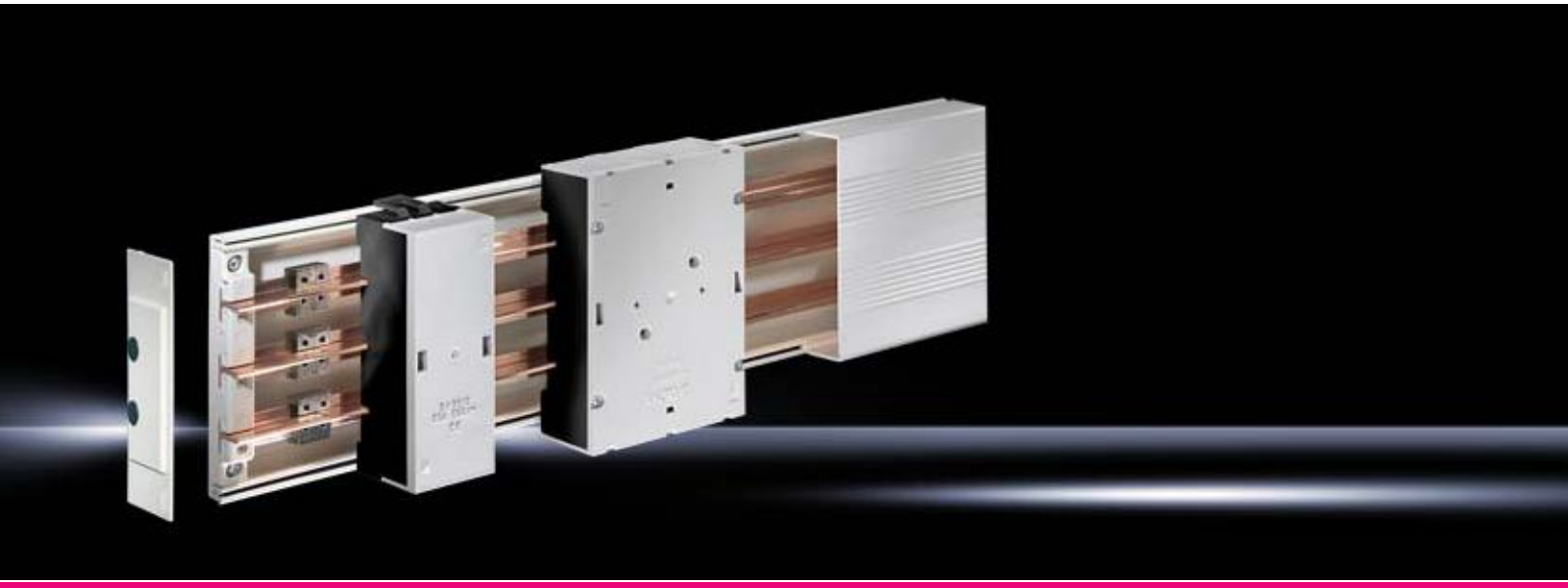
Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– 1 set consisting of 1 expansion module, 2 extension modules, 3 connection pins
– 1 set ≙ 1 pc(s).

Width mm	Height mm	Packs of	Model No.
90	80	4 pc(s).	**9635.640**

Mini-PLS busbar system (40 mm)



Component adaptors Page 296 **Fuse elements** Page 295

Busbar supports, busbar connection adaptors

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

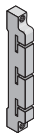
Colour:
– RAL 7035
– RAL 9011 (busbar connection adaptor chassis)

Contact hazard protection

Material:
– Thermally modified hard PVC
– Fire protection corresponding to UL 94-V0

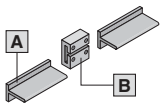
Colour:
– RAL 7035

Mini-PLS busbar supports (3-pole)



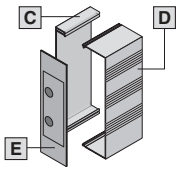
Busbar supports, suitable for top mounting	Packs of	■
Bar centre distance mm		40
Approvals		UR
Model No.	4 pc(s).	**9600.000**

A Mini-PLS special busbars E-Cu, bar thickness 3 mm, bar cross-section 120 mm²



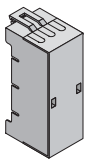
Length mm		Packs of	500	700	1100	1500
Approvals			UR	UR	UR	UR
Model No.		3 pc(s).	**9601.000**	**9602.000**	**9603.000**	**9624.000**
Accessories						
B Busbar connectors	Approvals		**Model No.**			
	UR	3 pc(s).	**9611.000**			

Mini-PLS contact hazard protection



Components	Approvals	Length mm	Packs of	**Model No.**
C Base tray	UR	500	1 pc(s).	**9605.000**
		700	1 pc(s).	**9606.000**
		1100	1 pc(s).	**9607.000**
D Cover section	UR	250	1 pc(s).	**9608.000**
		500	1 pc(s).	**9609.000**
E End cover	UR	–	2 pc(s).	**9610.000**

Mini-PLS busbar connection adaptors (3-pole)



				Page
Rated max. current A	Packs of	63	250	
Rated operating voltage V, ~		690, 3~	690, 3~	
Cable outlet		Top/bottom	Top/bottom	
Connection of round conductors mm²		1.5 – 35	10 – 120	
Clamping area for laminated copper bars, W x H mm		10 x 8	17 x 15	
Width mm		54	115	
Height mm		160	182	
Approvals		UR	UR	
Model No.	1 pc(s).	**9613.000**	**9612.000**	
Accessories				
Laminated copper bar		■	■	346

Busbar system Page 294 **Connection adaptors** Page 294 **Connection adaptors** Page 296

Bus-mounting fuse base

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- Chassis: RAL 9011
- Cover: RAL 7035

NH fuse-switch disconnector

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

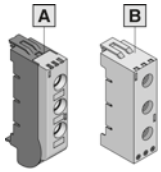
Colour:
- RAL 7035

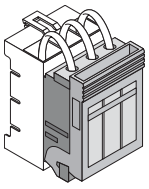
Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Busbar adaptor

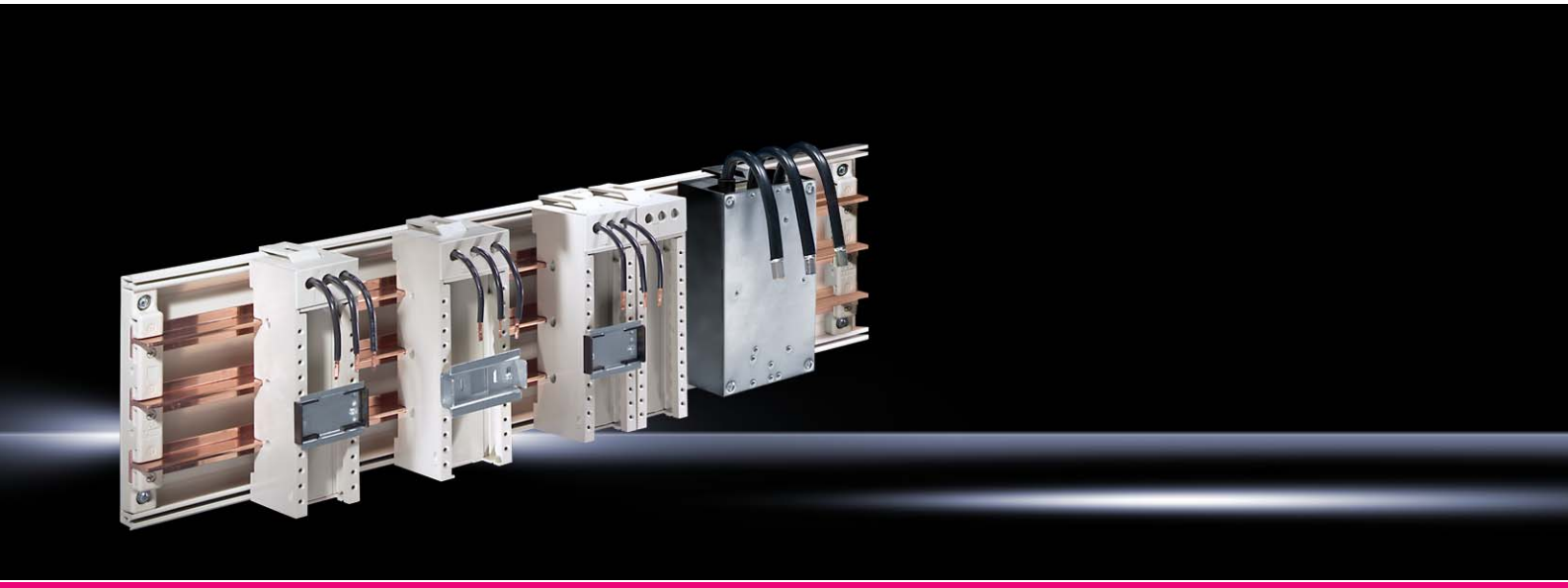
Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 9011

Mini-PLS bus-mounting fuse base (3-pole)			A	B
	Fuse insert	Packs of	D 02-E18	D 02-E18
	Rated max. current A		63	63
	Rated operating voltage V, ~		400, 3~	400, 3~
	Connection of round conductors mm²		1.5 – 16	1.5 – 16
	Connection type		Spring terminal	Box terminal
	Width mm		39.5	38
	Height mm		189	160
	Model No.	1 pc(s).	**9630.005**	**9630.000**

NH fuse-switch disconnector size 000 (3-pole)				
	Rated operating current max. A	Packs of	100	Page
	Rated operating voltage V, ~		690, 3~	
	Cable outlet		Top/bottom	
	Connection type		Box terminal	
	Connection of round conductors mm²		1.5 – 50	
	Clamping area for laminated copper bars, W x H mm		10 x 10	
	Width mm		89	
	Height mm		141.5	
	Model No.	1 pc(s).	**3431.000**	325
Also required				
Mini-PLS busbar adaptor (3-pole)				
With connection cables mm²			35	
Width mm			90	
Height mm			160	
Model No.		1 pc(s).	**9629.100**	
Accessories				
Micro-switch		5 pc(s).	3071.000	358

Mini-PLS component adaptors

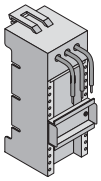


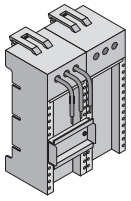
Busbar system Page 294 **Busbar connection adaptors** Page 294 **Fuse elements** Page 295 **Switchgear assignment** Page 297

Material:
– Polyamide (PA 6.6)
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035
– RAL 9011 (9629.000)

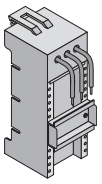
Rated current max. 12 – 25 A

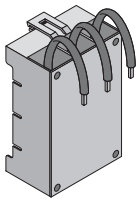




Rated max. current A		Packs of	12	25	25	25	25	25	25	Page
Rated operating voltage V, ~			690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles			3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables			AWG 14	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	
Support rails quantity/height mm			1/7.5	1/7.5	1/15	1/7.5	1/15	1/7.5	1/7.5	
Width mm			45	45	45	54	54	72	90	
Height mm			160	160	160	160	160	160	160	
Approvals			UR	UR	UR	UR	UR	UR	–	
Model No.		1 pc(s).	**9614.110**	**9614.100**	**9615.100**	**9614.000**	**9615.000**	**9625.000**	**9629.010**	
Accessories										
Insert strip		2 pc(s).	9623.000	9623.000	9623.000	9623.000	9623.000	9623.000	9623.000	353
Support rails, height 7.5 mm	Width 45 mm	10 pc(s).	9320.150	9320.150	9320.150	–	–	–	9320.150	352
	Width 54 mm	10 pc(s).	–	–	–	3548.000	3548.000	–	–	352

Rated current max. 40 – 100 A





Rated max. current A			Packs of	40	40	40	100	Page
Rated operating voltage V, ~				690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles				3-pole	3-pole	3-pole	3-pole	
Connection cables				AWG 10	AWG 10	AWG 10	35 mm²	
Support rails quantity/height mm				1/7.5	1/15	1/7.5	–	
Width mm				54	54	72	90	
Height mm				160	160	160	160	
Approvals				UR	UR	UR	UR	
Model No.			1 pc(s).	**9616.000**	**9617.000**	**9627.000**	**9629.000**	
Accessories								
Insert strip			2 pc(s).	9623.000	9623.000	9623.000	–	353
Support rails	Height 7.5 mm	Width 54 mm	10 pc(s).	3548.000	3548.000	–	–	352
	Height 15 mm	Width 72 mm	5 pc(s).	–	–	–	9320.120	352

Switchgear assignment – Mini-PLS component adaptors 12 A/25 A

Make/model	Model No.
ABB	
MS116	9614.100
MS325	9614.000
MS450 (max. 25 A)	9614.000
MS451 (max. 25 A)	9614.000
Eaton	
PKZM0 (up to 25 A)	9614.100
PKZM01 (up to 25 A)	9614.100
PKZM4 (up to 25 A)	9614.000
PKE12	9614.100
PKE32 (up to 25 A)	9614.100
PKE65 (up to 25 A)	9614.000
Schneider Electric	
GV2-P (up to 25 A)	9614.100
GV2-RT	9614.100
GV2-LE10	9614.100
GV3 (up to 25 A)	9614.100

Make/model	Model No.
Siemens	
S0	
3RV10 21...	9614.100
3RV20 21... (up to 25 A)	9614.100
S00	
3RV10 11...	9614.100[1)]
3RV20 11...	9614.100[1)]
S2	
3RV10 31... (up to 25 A)	9614.000

[1)] Support rail must be offset

Switchgear assignment – Mini-PLS component adaptors 40 A/100 A

Make/model	Model No.	Accessories Model No.
ABB		
MS450 (max. 40 A)	9617.000	–
MS451 (max. 40 A)	9629.000	9320.120
MS495	9629.000	9320.120
MS496	9629.000	9320.120
MS497	9629.000	9320.120
Tmax		
T1	9629.000	–
T2	9629.000	–
Eaton		
NZM 1	9629.000	–
PKZ2	9627.000	–
PKZM4 (max. 40 A)	9617.000	–
PKZM4	9629.000	9320.120

Make/model	Model No.	Accessories Model No.
Schneider Electric		
NS 80	9629.000	–
GV3 (max. 40 A)	9616.000	–
GV3	9629.000	9320.120
Siemens		
S2		
3RV10 31... (max. 40 A)	9616.000	–
3RV10 31...	9629.000	9320.120
S3		
3RV1341/42	9629.000	9320.120

Rittal – The System.

Faster – better – everywhere.

RiLine

Busbar systems 3-/4-pole and DC

Support + bars + contact hazard protection

- Flat copper bar system, see page 300
- PLS busbar system, see page 302
- Accessories, see page 340

Connection system 3- and 4-pole

- Busbar connection adaptors, see page 304
- Connection clamps, see page 349
- Connection block, see page 351
- Accessories, see page 349

Component adaptors 3- and 4-pole

- OM adaptors, see page 307
- Circuit-breaker component adaptors, see page 314
- Accessories, see page 352

Fuse elements 3-pole

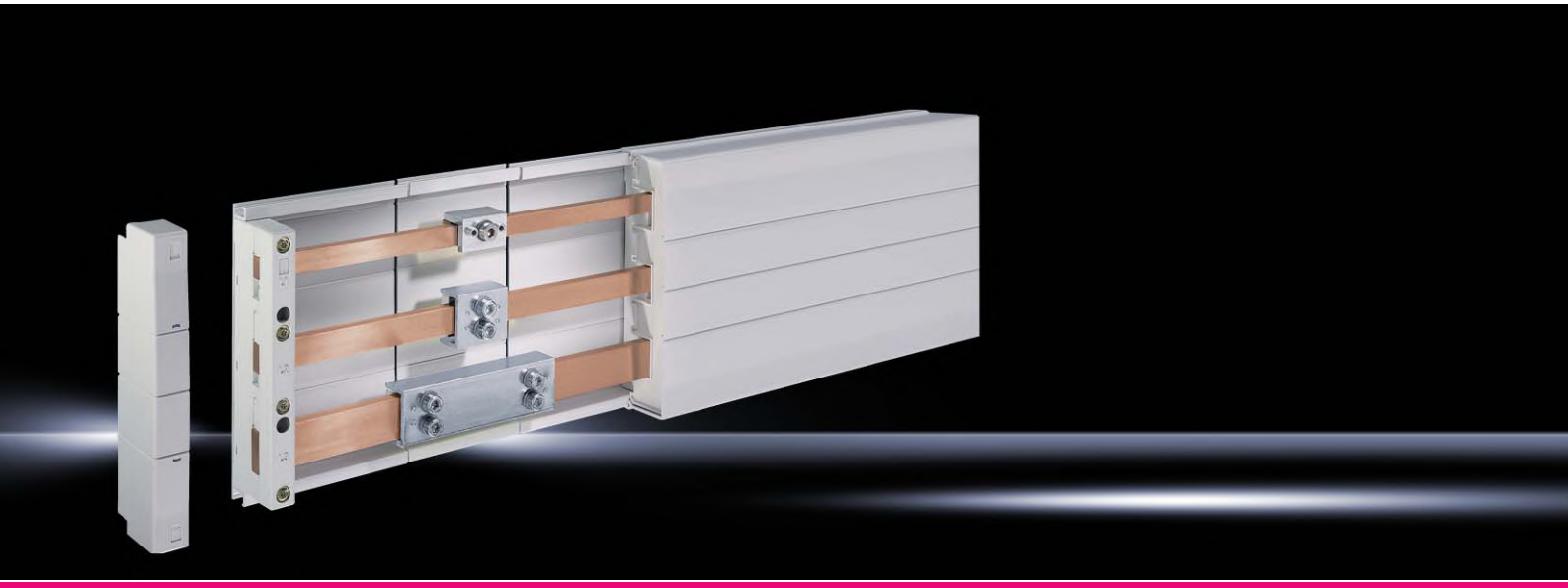
- Bus-mounting fuse bases, see page 323
- NH fuse-switch disconnectors, see page 325
- NH slimline fuse-switch disconnectors, see page 335
- Fuse holders, see page 337
- Accessories, see page 356

VX25 Power Engineering

see page 446

- Simple component selection, integral switchgear database
- Automatic calculation of rated currents and heat losses
- Configuration of RiLine busbar systems (offline version RPE 7.0)

RiLine busbar systems up to 800 A (60 mm)



Busbar connection adaptors Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314 **Fuse elements** Page 323

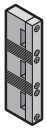
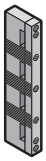
Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– UL approval only valid in conjunction with AC applications
– The use of a base tray is required for UL applications.

Flat copper busbar system

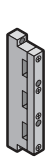
Busbar supports

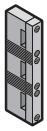
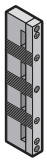
							
Number of poles		Packs of	3-pole	3-pole	3-pole	4-pole	Page
Bar centre distance mm			60	60	60	60	
External attachment			■	–	–	–	
Internal attachment			–	■	■	■	
For busbars mm	12 x 5/10		■	■	–	■	
	15 x 5 – 30 x 10		■	■	■	■	
Rated operating voltage V, ~			1000, 3~	1000, 3~	1000, 3~	1000, 3~	
			–	–	1500 (DC)	–	
Approvals			–	–	UL	UL	
Model No.		4 pc(s).	**9340.010**	**9340.000**	**9340.050**	**9340.004**	
Also required							
Spacers when using busbars 12 x 5/10 mm			■	■	–	■	
Model No.		12 pc(s).	9340.090	9340.090	–	9340.090	341

RiLine busbar systems up to 800 A (60 mm)

Flat copper busbar system

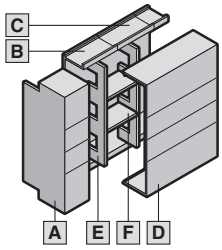
Busbar supports



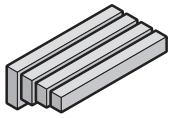
Number of poles	Packs of	3-pole	3-pole	3-pole	4-pole	Page
Bar centre distance mm		60	60	60	60	
Model No.	4 pc(s).	9340.010	9340.000	9340.050	9340.004	300
Also required						
Spacer when using busbars 12 x 5/10 mm		■	■	–	■	
Model No.	12 pc(s).	9340.090	9340.090	–	9340.090	341

Contact hazard protection



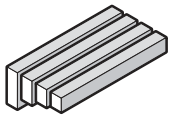
Components	Length mm	Approvals	Packs of	Model No.			Model No.	Page
A End covers	–	UL	2 pc(s).	**9340.070**	**9340.070**	**9340.070**	**9340.074**	–
B Base trays	500	UL	2 pc(s).	–	9340.100	9340.100	–	347
	700	UL	2 pc(s).	–	9340.110	9340.110	–	347
	900	UL	2 pc(s).	–	9340.120	9340.120	–	347
	1100	UL	2 pc(s).	–	9340.130	9340.130	9340.134	347
	2400	UL	1 pc(s).	–	9340.170	9340.170	–	347
C Base tray infills	100	UL	2 pc(s).	–	9340.140	9340.140	–	347
D Cover sections	700	UL	2 pc(s).	–	9340.200	9340.200	–	348
	1100	UL	2 pc(s).	–	9340.210	9340.210	9340.214	348
E Support panels	–	UL	5 pc(s).	–	9340.220	9340.220	9340.224	348
F Cross members	160	UL	2 pc(s).	–	–	9340.230	–	348

Busbars E-Cu, length: 2400 mm/bar



Dimensions mm	Max. rated current A according to DIN[1]	Max. rated current A according to UL 508	Approvals	Packs of	Model No.			Model No.	Page
12 x 5	210	160	UL	6 pc(s).	3580.000	3580.000	3580.000	3580.000	342
12 x 10	340	320	UL	6 pc(s).	3580.100	3580.100	3580.100	3580.100	342
15 x 5	260	200	UL	6 pc(s).	3581.000	3581.000	3581.000	3581.000	342
15 x 10	360	400	UL	6 pc(s).	3581.100	3581.100	3581.100	3581.100	342
20 x 5	274	270	UL	6 pc(s).	3582.000	3582.000	3582.000	3582.000	342
20 x 10	427	540	UL	3 pc(s).	3585.005	3585.005	3585.005	3585.005	342
25 x 5	327	330	UL	6 pc(s).	3583.000	3583.000	3583.000	3583.000	342
30 x 5	379	400	UL	6 pc(s).	3584.000	3584.000	3584.000	3584.000	342
30 x 10	573	810	UL	3 pc(s).	3586.005	3586.005	3586.005	3586.005	342

CUPONAL busbars, length: 2400 mm/bar



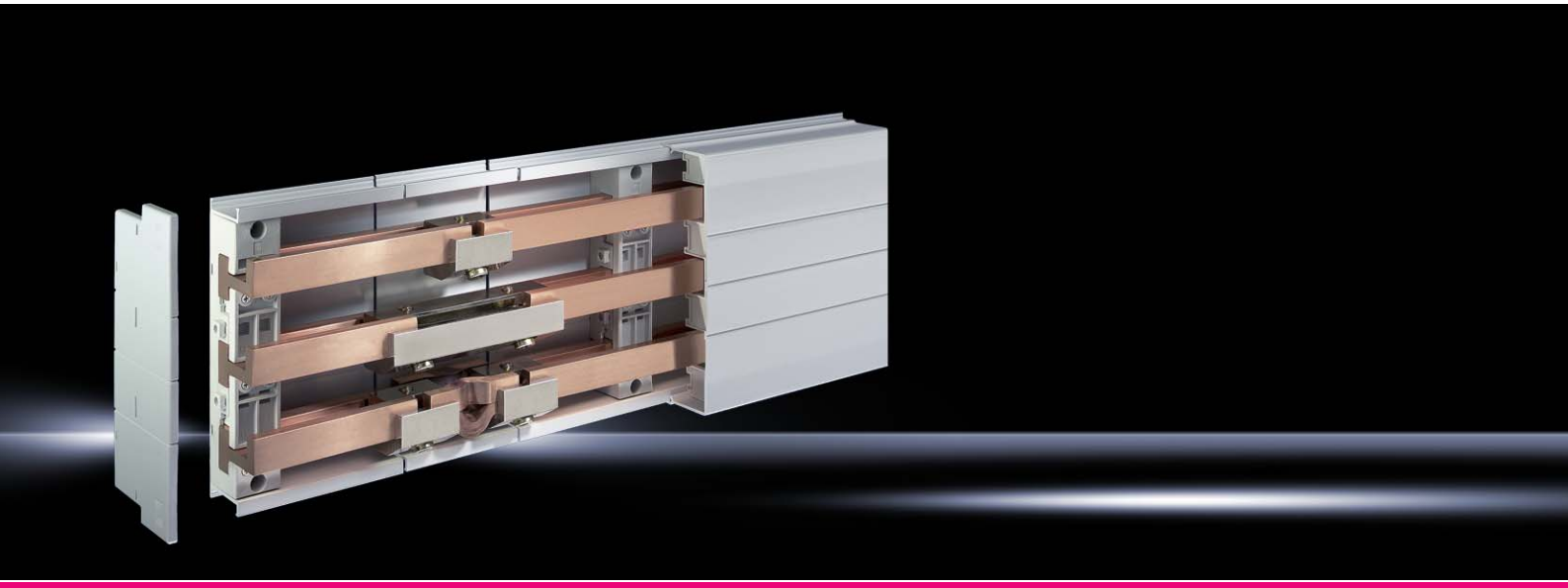
Dimensions mm	Max. rated current A according to DIN[1]	Max. rated current A according to UL 508	Approvals	Packs of	Model No.			Model No.	Page
20 x 5	235	–	–	6 pc(s).	–	3582.020	3582.020	–	342
20 x 10	363	–	–	3 pc(s).	–	3585.020	3585.020	–	342
30 x 5	328	–	–	6 pc(s).	–	3584.020	3584.020	–	342
30 x 10	493	–	–	3 pc(s).	–	3586.020	3586.020	–	342

Accessories

Components	For busbars mm	Approvals	Packs of	Model No.			Model No.	Page
Busbar connectors for single connection	12 x 5 – 15 x 10	UL	3 pc(s).	9350.075	9350.075	9350.075	9350.075	343
	20 x 5 – 30 x 10	UL	3 pc(s).	9320.020	9320.020	9320.020	9320.020	343
Busbar connectors for baying connection[2]	20 x 5 – 30 x 10	UL	3 pc(s).	9320.030	9320.030	9320.030	9320.030	343
Busbar cover sections Length: 1000 mm/section	12 x 5 – 30 x 10	UR	10 pc(s).	3092.000	3092.000	3092.000	3092.000	343
	12/15 x 5	UR	4 pc(s).	9350.010	9350.010	9350.010	9350.010	343
	12/15 x 10	UR	4 pc(s).	9350.060	9350.060	9350.060	9350.060	343

[1] Maximum rated value of an exposed, uncovered busbar at a temperature increase of 30 K to DIN 43 671
[2] Connection from enclosure to enclosure

RiLine busbar systems 800 A/1600 A (60 mm)



Busbar connection adaptors Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314 **Fuse elements** Page 323

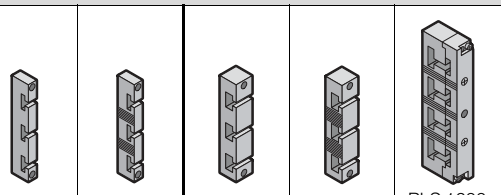
Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- UL approval only valid in conjunction with AC applications
- The use of a base tray is required for UL applications.

PLS busbar system

Busbar supports

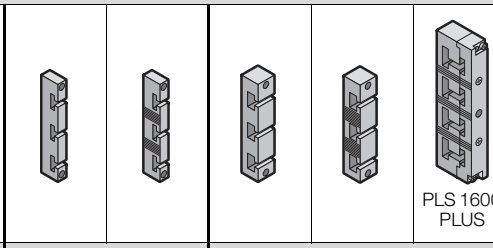


For Rittal system	Packs of	**PLS 800**		**PLS 1600**		
Number of poles		3-pole	3-pole	3-pole	3-pole	4-pole
Bar centre distance mm		60	60	60	60	60
Internal attachment		■	■	■	■	■
Busbar support, suitable for top mounting		■	■	■	■	–
Rated operating voltage V, ~		1000, 3~	1000, 3~	1000, 3~	1000, 3~	1000, 3~
		–	1500 (DC)	–	1500 (DC)	–
Approvals		–	UL	–	UL	UL
Model No.	4 pc(s).	**9341.000**	**9341.050**	**9342.000**	**9342.050**	**9342.004**

RiLine busbar systems 800 A/1600 A (60 mm)

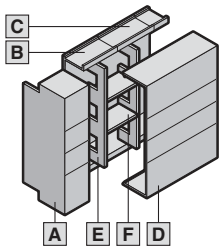
PLS busbar system

Busbar supports



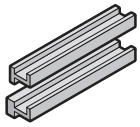
For Rittal system	Packs of	PLS 800		PLS 1600			Page
Number of poles		3-pole	3-pole	3-pole	3-pole	4-pole	
Bar centre distance mm		60	60	60	60	60	
Model No.	4 pc(s).	9341.000	9341.050	9342.000	9342.050	9342.004	302

Contact hazard protection



Components	Length mm	Approvals	Packs of	Model No.		Model No.			Page
A End covers	–	UL	2 pc(s).	**9341.070**	**9341.070**	**9342.070**	**9342.070**	**9342.074**	–
B Base trays	500	UL	2 pc(s).	9341.100	9341.100	9342.100	9342.100	–	347
	700	UL	2 pc(s).	9341.110	9341.110	9342.110	9342.110	–	347
	900	UL	2 pc(s).	9341.120	9341.120	9342.120	9342.120	–	347
	1100	UL	2 pc(s).	9341.130	9341.130	9342.130	9342.130	9342.134	347
	2400	UL	1 pc(s).	9341.170	–	9342.170	–	–	347
C Base tray infills	100	UL	2 pc(s).	9341.140	9341.140	9342.140	9342.140	–	347
D Cover sections	700	UL	2 pc(s).	9340.200	9340.200	9340.200	9340.200	–	348
	1100	UL	2 pc(s).	9340.210	9340.210	9340.210	9340.210	9340.214	348
E Support panels	–	UL	5 pc(s).	9340.220	9340.220	9340.220	9340.220	9340.224	348
F Cross members	160	UL	2 pc(s).	–	9340.230	–	9340.230	–	348

PLS special busbars E-Cu



Version			Packs of	PLS 800	PLS 1600	Page
Bar cross-section mm²				300	900	
Bar thickness mm				5	10	
Max. rated current A acc. to		DIN[1]		684	1368	
		UL 508		890	1500	
Length mm	For enclosure width mm	Approvals		Model No.	Model No.	
495	600	UL	3 pc(s).	3524.000	3527.000	344
695	800	UL	3 pc(s).	3525.000	3528.000	344
895	1000	UL	3 pc(s).	3525.010	3528.010	344
1095	1200	UL	3 pc(s).	3526.000	3529.000	344
2400	variable	UL	1 pc(s).	3509.000	3516.000	344

Accessories

Components		Approvals	Packs of	Model No.	Model No.	Page
PLS busbar connectors	Single connection	UL	3 pc(s).	3504.000	3514.000	344
	Bayed connection[2]	UL	3 pc(s).	3505.000	3515.000	344
PLS expansion connector[3]		UR	3 pc(s).	9320.060	9320.070	345

[1] Maximum rated value of an exposed, uncovered busbar at a temperature increase of 30 K to DIN 43 671
[2] Connection from enclosure to enclosure
[3] 2 PLS busbar connectors (single connection) are required to fit one expansion connector

Connection adaptors

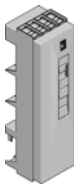
Busbar system Page 300 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314 **Fuse elements** Page 323

Material:
- Cover: ABS
- Punched section: Polyamide
- Chassis 3439.010: Fibreglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0

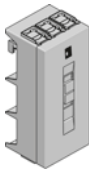
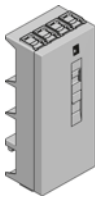
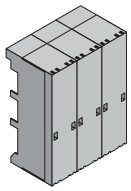
Colour:
- RAL 7035

Note:
- The technical data may vary for UL applications
- UL approval only applies in conjunction with AC application
- The rated operating voltage for DC applications depends on the busbar arrangement in the busbar supports 9340.050/ 9341.050/9342.050.

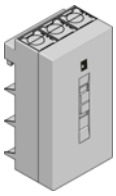
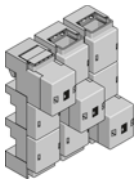
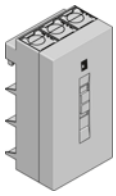
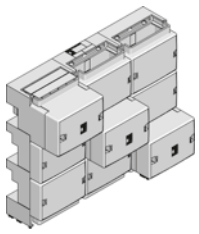
Rated current max. 63 – 125 A

							
Rated current max. A	Packs of	63	63	125	125	125	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 4~	
Rated operating voltage (L1 + L2) V		–	1000 (DC)	–	1000 (DC)	–	
Rated operating voltage (L1 + L3) V		–	1500 (DC)	–	1500 (DC)	–	
Number of poles		3-pole	3-pole	3-pole	3-pole	4-pole	
Cable outlet		Top	Bottom	Top/bottom	Bottom	Top/bottom	
Connection of round conductors, fine wire with wire end ferrule mm^2		2.5 - 10	2.5 - 10	10 - 25	10 - 25	10 - 25	
Connection of round conductors, multi-wire mm^2		2.5 - 10	2.5 - 10	16 - 35	16 - 35	16 - 35	
Connection of round conductors, single-wire mm^2		2.5 - 10	2.5 - 10	–	–	–	
Clamping area for laminated copper bars (W x H) mm		–	–	10 x 7.8	10 x 7.8	10 x 7.8	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H)		–	–	–	–	–	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H)		–	–	–	–	–	
Width mm		20	20	55	55	75	
Height mm		215	215	210	210	270	
Approvals		UL	UL	UR	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.200**	**9342.210**	**9342.220**	**9342.240**	**9342.224**	
Accessories							
Laminated copper bar		–	–	see page	see page	see page	346
Connection adaptor expansion set		–	–	–	–	–	

Rated current max. 250 – 600 A

						
Rated current max. A	Packs of	250	250	250	600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 4~	690, 3~	
Rated operating voltage (L1 + L2) V		–	1000 (DC)	–	–	
Rated operating voltage (L1 + L3) V		–	1500 (DC)	–	–	
Number of poles		3-pole	3-pole	4-pole	3-pole	
Cable outlet		Top/bottom	Bottom	Top/bottom	Top/bottom	
Connection of round conductors, fine wire with wire end ferrule mm²		35 - 120	35 - 120	35 - 120	35 - 240	
Connection of round conductors, multi-wire mm²		35 - 120	35 - 120	35 - 120	35 - 240	
Connection of round conductors, single-wire		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		18.5 x 15.5	18.5 x 15.5	18.5 x 15.5	24 x 21	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H)		–	–	–	–	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H)		–	–	–	–	
Width mm		90	90	118	180	
Height mm		210	210	270	247	
Approvals		UL	UL	UL	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.250**	**9342.270**	**9342.254**	**3439.010**	
Accessories						
Laminated copper bar		see page	see page	see page	see page	346
Connection adaptor expansion set		–	–	–	–	

Rated current max. 800 – 1600 A

						
Rated current max. A	Packs of	800	800	800	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Rated operating voltage (L1 + L2) V		–	1000 (DC)	1000 (DC)	1000 (DC)	
Rated operating voltage (L1 + L3) V		–	1500 (DC)	1500 (DC)	1500 (DC)	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Bottom	Top/bottom	
Connection of round conductors, fine wire with wire end ferrule mm²		95 - 185	95 - 185	95 - 185	–	
Connection of round conductors, multi-wire mm²		95 - 300	95 - 300	95 - 300	–	
Connection of round conductors, single-wire		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		33 x 20	–	33 x 20	–	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H) mm		–	33 x 26	–	65 x 27	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H) mm		–	33 x 21	–	65 x 22	
Width mm		129	150	129	255	
Height mm		246	210	246	210	
Approvals		UR	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.280**	**9342.310**	**9342.300**	**9342.320**	
Accessories						
Laminated copper bar		see page	see page	see page	see page	346
Connection adaptor expansion set	1 pc(s).	–	9342.314	–	9342.324	306

Connection adaptor expansion set

Busbar system Page 300 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314 **Fuse elements** Page 323

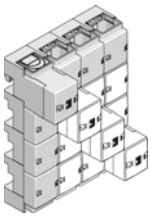
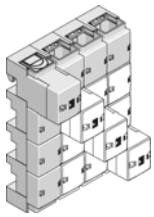
Single-pole extra set to complement the 3-pole connection adaptor for 4-pole configurations.

Material:
- Cover: ABS
- Punched section: Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- The technical data may vary for UL applications
- UL approval only applies in conjunction with AC application

for 4-pole configuration

				
To fit Model No.	Packs of	9342.310	9342.320	Page
Rated current max. A		800	1600	
Rated operating voltage V, ~		690, 1~	690, 1~	
Number of poles		Single-pole	Single-pole	
Connection of round conductors, fine wire with wire end ferrule mm^2		95 - 185	–	
Connection of round conductors, multi-wire mm^2		95 - 300	–	
Clamping area for laminated copper bars with 5 mm bar thickness (W x H) mm		33 x 26	65 x 27	
Clamping area for laminated copper bars with 10 mm bar thickness (W x H) mm		33 x 21	65 x 22	
Width mm		50	85	
Height mm		270	270	
Approvals		UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Model No.	1 pc(s).	**9342.314**	**9342.324**	
Accessories				
Laminated copper bar		see page	see page	346

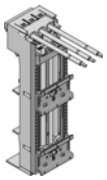
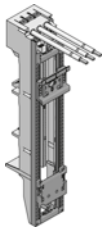
Busbar system Page 300 **Connection adaptors** Page 304 **Fuse elements** Page 323 **Allocation of switchgear** Page 319

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

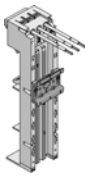
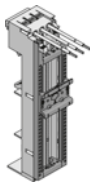
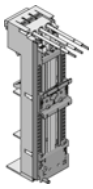
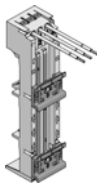
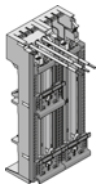
Note:
– The technical data may vary for UL applications

Rated current max. 16 A, with connection cables

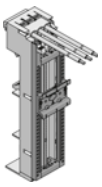
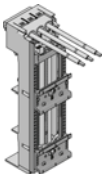
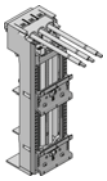
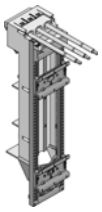
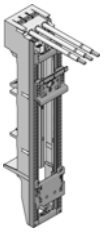
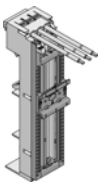
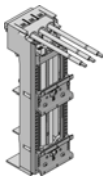
				
Rated current max. A	Packs of	16	16	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Connection cables, Design		AWG 12	AWG 12	
Connection cables, Length mm		165	165	
With support frame mm		45 x 170	45 x 237	
With support frame support		–	■	
With PinBlock		–	■	
With insert strips		–	–	
Support rails Qty/height mm		2 / 10	1 / 10	
Support rail version		TS 45D TS 45D-V	TS 45D	
Width mm		45	45	
Height mm		208	272	
Approvals		UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Model No.	1 pc(s).	**9340.780**	**9340.760**	
Accessories				
Support rail 35 x 10 mm		see page	see page	352
Insert strip	2 pc(s).	9340.290	9340.290	353
Connection pin	20 pc(s).	9340.280	9340.280	354
PinBlock	5 pc(s).	9342.800	–	354
OM supports		see page	see page	313

OM adaptors

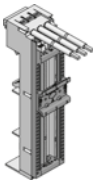
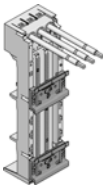
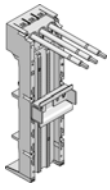
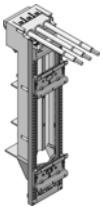
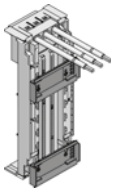
Rated current max. 25 A, with connection cables

							
Rated current max. A	Packs of	25	25	25	25	25	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables, Design		AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	
Connection cables, Length mm		130	130	130	130	130	
With support frame mm		–	45 x 170	45 x 170	–	45 x 170	
With support frame support		–	–	–	–	–	
With PinBlock		–	–	■	–	–	
With insert strips		–	–	–	–	–	
Support rails Qty/height mm		1 / 10	1 / 10	1 / 10	2 / 10	3 / 10	
Support rail version		TS 45C	TS 45C	TS 45C	TS 45D	TS 45D TS 45D-V	
Width mm		45	45	45	45	90	
Height mm		208	208	208	208	208	
Approvals		–	–	–	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.310**	**9340.340**	**9340.370**	**9340.320**	**9340.400**	
Accessories							
Support rail 35 x 10 mm		see page	see page	see page	see page	see page	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	–	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	–	354
PinBlock	5 pc(s).	–	9342.800	–	–	9342.800	354
OM supports		see page	see page	see page	see page	–	313

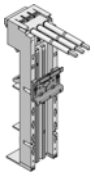
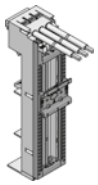
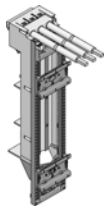
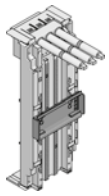
Rated current max. 32 A, with connection cables

									
Rated current max. A	Packs of	32	32	32	32	32	32	32	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables, Design		AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	AWG 10	
Connection cables, Length mm		130	130	165	130	165	130	130	
With support frame mm		45 x 170	45 x 170	45 x 170	45 x 237	45 x 237	55 x 170	55 x 170	
With support frame support		–	–	–	■	■	–	–	
With PinBlock		–	–	–	–	■	–	–	
With insert strips		–	–	–	–	–	–	–	
Support rails Qty/height mm		1 / 10	2 / 10	2 / 10	2 / 10	1 / 10	1 / 10	2 / 10	
Support rail version		TS 45C	TS 45D TS 45D-V	TS 45D TS 45D-V	TS 45D TS 45D-V	TS 45D	TS 55D	TS 55D TS 55D-V	
Width mm		45	45	45	45	45	55	55	
Height mm		208	208	208	272	272	208	208	
Approvals		–	–	–	–	–	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.350**	**9340.380**	**9340.790**	**9340.390**	**9340.770**	**9340.460**	**9340.470**	
Accessories									
Support rail 35 x 10 mm		see page	see page	see page	see page	see page	see page	see page	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	9340.290	9340.290	9340.290	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	9340.280	9340.280	9340.280	354
PinBlock	5 pc(s).	9342.800	9342.800	9342.800	9342.800	9342.800	9342.810	9342.810	354
OM supports		see page	see page	see page	see page	see page	see page	see page	313

Rated current max. 40 A, with connection cables

							
Rated current max. A	Packs of	40	40	40	40	40	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Connection cables, Design		AWG 8	AWG 8	AWG 8	AWG 8	AWG 8	
Connection cables, Length mm		130	130	130	130	130	
With support frame mm		55 x 170	–	–	55 x 237	–	
With support frame support		–	–	–	■	–	
With PinBlock		–	–	–	–	–	
With insert strips		–	–	–	–	■	
Support rails Qty/height mm		1 / 10	2 / 10	1 / 15	2 / 10	2 / 7.5	
Support rail version		TS 55D	TS 55D	Metal	TS 55D TS 55D-V	Metal	
Width mm		55	55	55	55	75	
Height mm		208	208	208	272	208	
Approvals		–	–	–	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.720**	**9340.740**	**9340.750**	**9340.730**	**9340.710**	
Accessories							
Support rail 35 x 10 mm		see page	see page	see page	see page	–	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	–	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	9340.280	354
PinBlock	5 pc(s).	9342.810	–	–	9342.810	–	354
OM supports		see page	see page	see page	see page	see page	313

Rated current max. 65 A, with connection cables

						
Rated current max. A	Packs of	65	65	65	65	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Connection cables, Design		AWG 6	AWG 6	AWG 6	AWG 6	
Connection cables, Length mm		130	130	130	130	
With support frame mm		–	55 x 170	55 x 237	–	
With support frame support		–	–	■	–	
With PinBlock		–	–	–	–	
With insert strips		–	–	–	■	
Support rails Qty/height mm		1 / 10	1 / 10	2 / 10	1 / 7.5	
Support rail version		TS 55E	TS 55E	TS 55E TS 55D-V	Metal	
Width mm		55	55	55	75	
Height mm		208	208	272	208	
Approvals		–	–	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.410**	**9340.430**	**9340.450**	**9340.700**	
Accessories						
Support rail 35 x 10 mm		see page	see page	see page	–	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	–	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	–	354
PinBlock	5 pc(s).	–	9342.810	9342.810	–	354
OM supports		see page	see page	see page	see page	313

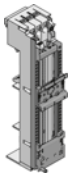
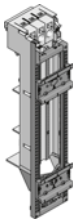
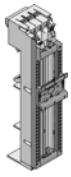
OM adaptors

Busbar system Page 300 **Connection adaptors** Page 304 **Fuse elements** Page 323 **Allocation of switchgear** Page 319

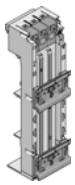
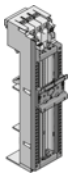
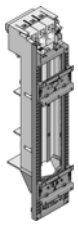
Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

Rated current max. 32 A, with spring terminals

								
Rated current max. A	Packs of	32	32	32	32	32	32	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Connection of round conductors mm²		1.5 - 6	1.5 - 6	1.5 - 6	1.5 - 6	1.5 - 6	1.5 - 6	
With support frame mm		–	–	45 x 170	45 x 170	45 x 237	55 x 170	
With support frame support		–	–	–	–	■	–	
With PinBlock		–	–	–	■	–	–	
Support rails Qty/height mm		1 / 10	2 / 10	1 / 10	1 / 10	2 / 10	1 / 10	
Support rail version		TS 45C	TS 45D	TS 45C	TS 45C	TS 45D TS 45D-V	TS 55D	
Width mm		45	45	45	45	45	55	
Height mm		208	208	208	208	272	208	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.510**	**9340.520**	**9340.530**	**9340.550**	**9340.560**	**9340.660**	
Accessories								
Support rail 35 x 10 mm		see page	see page	see page	see page	see page	see page	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	9340.290	9340.290	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	9340.280	9340.280	354
PinBlock	5 pc(s).	–	–	9342.800	9342.800	9342.800	9342.810	354
Cable set		see page	see page	see page	see page	see page	see page	354
Twin cord		–	–	–	–	–	–	
OM supports		see page	see page	see page	see page	see page	see page	313

Rated current max. 65 A, with spring terminals

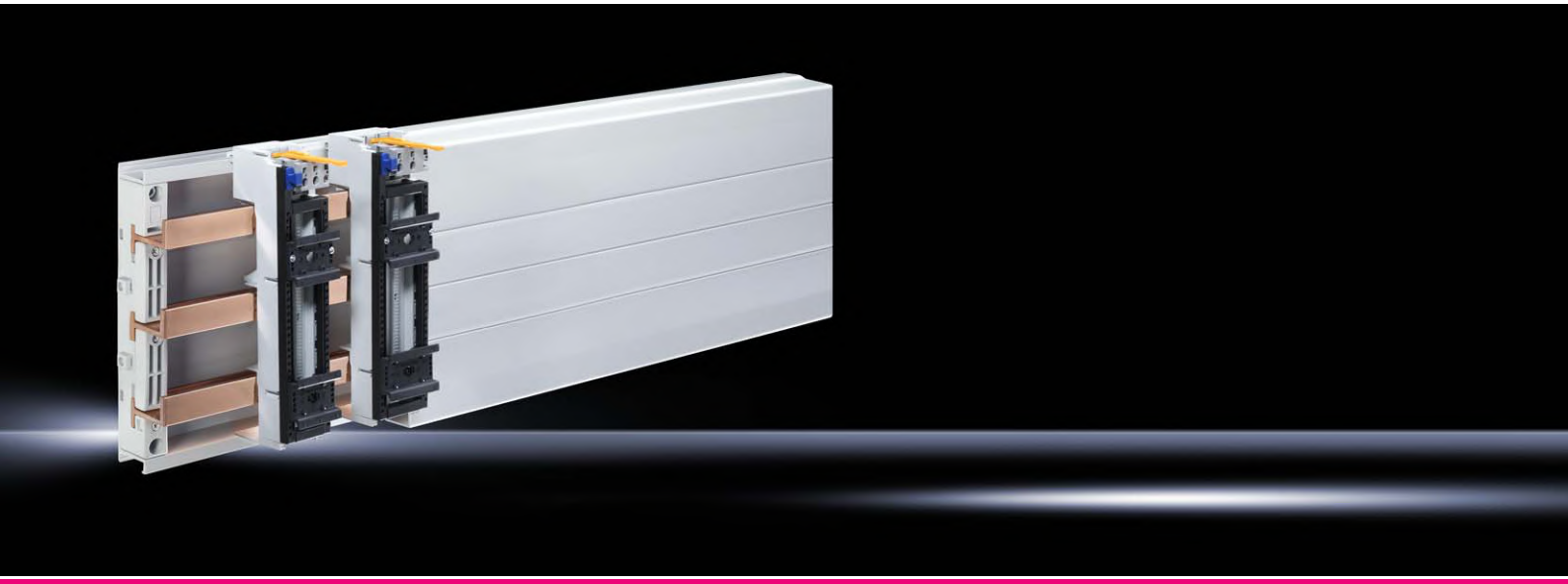
						
Rated current max. A	Packs of	65	65	65	65	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Connection of round conductors mm²		2.5 - 16	2.5 - 16	2.5 - 16	2.5 - 16	
According to a heat dissipation test to IEC 61 439-1, a current carrying capacity of up to 80 A is supported		■	■	■	■	
With support frame mm		–	–	55 x 170	55 x 237	
With support frame support		–	–	–	■	
With PinBlock		–	–	–	–	
Support rails Qty/height mm		1 / 10	2 / 10	1 / 10	2 / 10	
Support rail version		TS 55E	TS 55E TS 55D	TS 55E	TS 55E TS 55D-V	
Width mm		55	55	55	55	
Height mm		208	208	208	272	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.610**	**9340.620**	**9340.630**	**9340.650**	
Accessories						
Support rail 35 x 10 mm		see page	see page	see page	see page	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	9340.290	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	9340.280	354
PinBlock	5 pc(s).	–	–	9342.810	9342.810	354
Cable set		see page	see page	see page	see page	354
Twin cord		see page	see page	see page	see page	355
OM supports		see page	see page	see page	see page	313

Rittal – The System.

Conductor connection clamps

see page 349

OM adaptors

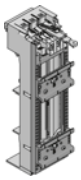
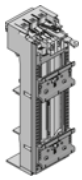


Busbar system Page 300 **Connection adaptors** Page 304 **Fuse elements** Page 323

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

Rated current max. 25 A, with plug-in cable outlet

				
Rated current max. A	Packs of	25	25	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Connection of round conductors mm^2		1.5 - 4	1.5 - 4	
With support frame mm		45 x 170	55 x 170	
Support rails Qty/height mm		2 / 10	2 / 10	
Support rail version		TS 45D TS 45D-V	TS 55D TS 55D-V	
Width mm		45	55	
Height mm		208	208	
For bar systems with centre-to-centre spacing mm		60	60	
For bar thickness mm		5/10	5/10	
Model No.	1 pc(s).	**9340.910**	**9340.930**	
Product-specific scope of supply				
Connector with connection facility for 3 main contacts (1.5 – 4 mm^2)		■	■	
Accessories				
Support rail 35 x 10 mm		see page	see page	352
Cable set		see page	see page	354

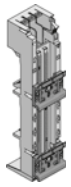
Busbar system Page 300 **Connection adaptors** Page 304 **Fuse elements** Page 323

For mounting of switchgear with external power supply.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– Chassis: RAL 7035

without contact system

					
Number of poles	Packs of	–	–	–	Page
With support frame mm		45 x 170	55 x 237	–	
With support frame support		–	■	–	
With PinBlock		■	–	–	
Support rails Qty/height mm		–	1 / 10	2 / 10	
Support rail version		–	TS 55D-V	TS 45D	
Width mm		45	55	45	
Height mm		208	272	208	
Approvals		UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	
For bar thickness mm		5/10	5/10	5/10	
Model No.	1 pc(s).	**9340.260**	**9340.270**	**9340.300**	
Accessories					
Support rail 35 x 10 mm		see page	see page	see page	352
Insert strip	2 pc(s).	9340.290	9340.290	9340.290	353
Connection pin	20 pc(s).	9340.280	9340.280	9340.280	354

Circuit-breaker component adaptors

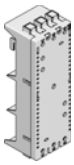
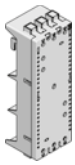
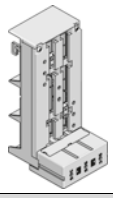
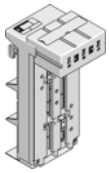
Busbar system Page 300 **Connection adaptors** Page 304 **Fuse elements** Page 323

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

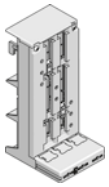
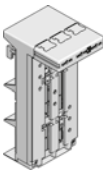
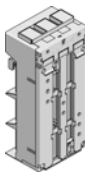
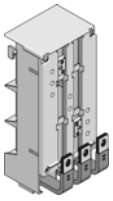
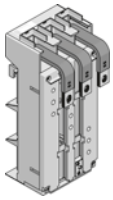
Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- The technical data may vary for UL applications

Rated current max. 100 – 125 A, 3-pole

						
Rated current max. A	Packs of	100	100	125	125	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Top	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	Box terminal	
Connection of round conductors mm²		10 - 35	10 - 35	35 - 120	35 - 120	
Clamping area for laminated copper bars (W x H) mm		10 x 7.8	10 x 7.8	18.5 x 15.5	18.5 x 15.5	
For switchgear make (model)		ABB (MS 495, MS 496, MS 497) Eaton (PKZ2) Schneider Electric (GV3ME80) Siemens (S3)	ABB (MS 495, MS 496, MS 497) Eaton (PKZ2) Schneider Electric (GV3ME80) Siemens (S3)	ABB (S1, S2, T1, T1 UL, T2, T2 UL, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, NZM1 UL, BZM B1) GE (FD160) OEZ (BC160N) Schneider Electric (NS80, NSC100, NSE75, NSE100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11, 3VA51) Terasaki (E125, S125)	ABB (S1, S2, T1, T1 UL, T2, T2 UL, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, NZM1 UL, BZM B1) GE (FD160) OEZ (BC160N) Schneider Electric (NS80, NSC100, NSE75, NSE100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11, 3VA51) Terasaki (E125, S125)	
Width mm		72	72	90	90	
Height mm		210	210	225	225	
Approvals		UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.400**	**9342.410**	**9342.540**	**9342.550**	
Product-specific scope of supply						
Terminal cover		–	–	■	■	
Sliding blocks		–	–	■	■	
Accessories						
Support rail 35 x 15 mm	5 pc(s).	9320.120	9320.120	–	–	353
Connection bracket	3 pc(s).	–	–	9342.570	9342.570	355
Insert strip		–	–	–	–	

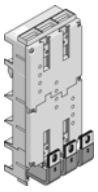
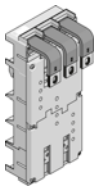
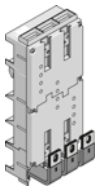
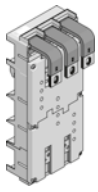
Circuit-breaker component adaptors

Rated current max. 160 – 250 A, 3-pole

							
Rated current max. A	Packs of	160	160	250	250	250	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Bottom	Top	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	–	–	
Connection of round conductors mm²		35 - 120	35 - 120	35 - 120	–	–	
Clamping area for laminated copper bars (W x H) mm		18.5 x 15.5	18.5 x 15.5	18.5 x 15.5	–	–	
For switchgear make (model)		ABB (S1, S2, T1, T2, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, BZM B1) GE (FD160) Legrand (DPX 125, DPX 160) OEZ (BC160N) Schneider Electric (NS80, NSC100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11) Terasaki (E125, S125)	ABB (S1, S2, T1, T2, XT1, XT2) Allen Bradley (140-CMN) Eaton (NZM1, BZM B1) GE (FD160) Legrand (DPX 125, DPX 160) OEZ (BC160N) Schneider Electric (NS80, NSC100) Schrack (MC1) Siemens (3RV13 53, 3VT1, 3VA10, 3VA11) Terasaki (E125, S125)	ABB (S3, T3, T4/320 A, T3 UL, T4 UL, XT3, XT4) Allen Bradley (140U-J) Eaton (NZM2, NZM2 UL, BZM B2) GE (FE160, FE250, FD160) Legrand (DPX 250) Mitsubishi (NF125-SGW/HGW, NF160-SGW/HGW) OEZ (BD250N, BD250S) Schneider Electric (NS(X)100, NS(X)160, NS(X)250, GV7, NSF150, NSF250) Schrack (MC2) Siemens (VL150(X) UL, VL160(X), VL250, VL250 UL, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2, 3VA12/20/21/22, 3VA52/61/62) Terasaki (H125, L125, H160, L160, S160, E250, H250, L250)	ABB (S3, T3, T4/320 A, T3 UL, T4 UL, XT3, XT4) Allen Bradley (140U-J) Eaton (NZM2, NZM2 UL, BZM B2) GE (FE160, FE250, FD160) Legrand (DPX 250) Mitsubishi (NF125-SGW/HGW, NF160-SGW/HGW) OEZ (BD250N, BD250S) Schneider Electric (NS(X)100, NS(X)160, NS(X)250, GV7, NSF150, NSF250) Schrack (MC2) Siemens (VL150(X) UL, VL160(X), VL250, VL250 UL, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2, 3VA12/20/21/22, 3VA52/61/62) Terasaki (H125, L125, H160, L160, S160, E250, H250, L250)	ABB (S3, T3, T4/320 A, T3 UL, T4 UL, XT3, XT4) Allen Bradley (140U-J) Eaton (NZM2, NZM2 UL, BZM B2) GE (FE160, FE250, FD160) Legrand (DPX 250) Mitsubishi (NF125-SGW/HGW, NF160-SGW/HGW) OEZ (BD250N, BD250S) Schneider Electric (NS(X)100, NS(X)160, NS(X)250, GV7, NSF150, NSF250) Schrack (MC2) Siemens (VL150(X) UL, VL160(X), VL250, VL250 UL, 3RV10 63, 3RV13 63, 3RV13 64, 3VT2, 3VA12/20/21/22, 3VA52/61/62) Terasaki (H125, L125, H160, L160, S160, E250, H250, L250)	
Width mm		90	90	105	105	105	
Height mm		215	215	240	240	240	
Approvals		–	–	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.500**	**9342.510**	**9342.610**	**9345.600**	**9345.610**	
Product-specific scope of supply							
Terminal cover		■	■	■	–	–	
Sliding blocks		■	■	■	■	■	
Connection straps		–	–	–	■	■	
Accessories							
Support rail 35 x 15 mm		–	–	–	–	–	
Connection bracket	3 pc(s).	9342.570	9342.570	–	–	–	355
Insert strip		–	–	–	–	–	

Circuit-breaker component adaptors

Rated current max. 400 – 630 A, 3-pole

						
Rated current max. A	Packs of	400	400	630	630	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Top	Bottom	
Type of connection		–	–	–	–	
Connection of round conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H)		–	–	–	–	
When using the Siemens VL630 switchgear, insert strip 9342.720 is additionally required		–	–	■	■	
For switchgear make (model)		Eaton (NZM3, NZM3 UL/400 A) GE (FG400) Mitsubishi (NF400-SEW/HEW/REW) Schneider Electric (NS(X)400, NSJ400) Schrack (MC3) Siemens (VL400, VL400X UL, VL400 UL, 3VA23, 3VA63) Terasaki (E400, S400, H400, L400)	Eaton (NZM3, NZM3 UL/400 A) GE (FG400) Mitsubishi (NF400-SEW/HEW/REW) Schneider Electric (NS(X)400, NSJ400) Schrack (MC3) Siemens (VL400, VL400X UL, VL400 UL, 3VA23, 3VA63) Terasaki (E400, S400, H400, L400)	ABB (S5, T5, T5 UL) Allen Bradley (140U-L) Eaton (NZM3, NZM3 UL/630 A) GE (FG630) Legrand (DPX 630) Mitsubishi (NF630-SEW/HEW/REW) OEZ (BH630N, BH630S) Schneider Electric (NS(X)630, NSJ600) Schrack (MC3) Siemens (VL630, 3VA24, 3VT3, 3V10 73, 3RV13 73, 3RV13 74, 3VA64) Terasaki (E630, S630)	ABB (S5, T5, T5 UL) Allen Bradley (140U-L) Eaton (NZM3, NZM3 UL/630 A) GE (FG630) Legrand (DPX 630) Mitsubishi (NF630-SEW/HEW/REW) OEZ (BH630N, BH630S) Schneider Electric (NS(X)630, NSJ600) Schrack (MC3) Siemens (VL630, 3VA24, 3VT3, 3V10 73, 3RV13 73, 3RV13 74, 3VA64) Terasaki (E630, S630)	
Width mm		140	140	140	140	
Height mm		345	345	345	345	
Approvals		UL	UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9345.720**	**9345.730**	**9345.700**	**9345.710**	
Product-specific scope of supply						
Connection straps		■	■	■	■	
Sliding blocks		■	■	■	■	
Accessories						
Support rail 35 x 15 mm		–	–	–	–	
Connection bracket		–	–	–	–	
Insert strip	4 pc(s).	9342.720	9342.720	9342.720	9342.720	353

Circuit-breaker component adaptors

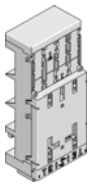
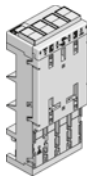
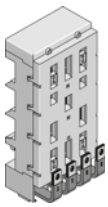
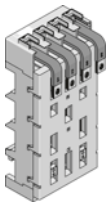
Busbar system Page 300 **Connection adaptors** Page 304

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

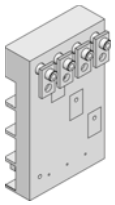
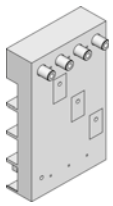
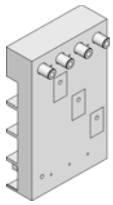
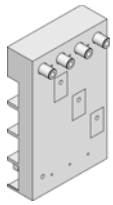
Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- The technical data may vary for UL applications

Rated current max. 160 – 250 A, 4-pole

						
Rated current max. A	Packs of	160	160	250	250	Page
Rated operating voltage V, ~		690, 4~	690, 4~	690, 4~	690, 4~	
Number of poles		4-pole	4-pole	4-pole	4-pole	
Cable outlet		Top	Bottom	Top	Bottom	
Type of connection		Box terminal	Box terminal	–	–	
Connection of round conductors mm²		35 - 120	35 - 120	–	–	
Clamping area for laminated copper bars (W x H) mm		18.5 x 15.5	18.5 x 15.5	–	–	
For switchgear make (model)		ABB (T1, T2, XT1, XT2) Eaton (NZM1-4/125 A, BZM E1-4/100 A) Schneider Electric (NSC100) Schrack (MC1) Siemens (3VA10, 3VA11)	ABB (T1, T2, XT1, XT2) Eaton (NZM1-4/125 A, BZM E1-4/100 A) Schneider Electric (NSC100) Schrack (MC1) Siemens (3VA10, 3VA11)	ABB (T3S, XT3) Eaton (NZM2-4/250 A) Schneider Electric (NS(X)100, NS(X)160, NS(X)250) Schrack (MC2) Siemens (VL160X, VL160, VL250, 3RV10 63, 3VA12/20/21/22, 3VA61/62)	ABB (T3S, XT3) Eaton (NZM2-4/250 A) Schneider Electric (NS(X)100, NS(X)160, NS(X)250) Schrack (MC2) Siemens (VL160X, VL160, VL250, 3RV10 63, 3VA12/20/21/22, 3VA61/62)	
Width mm		120	120	140	140	
Height mm		277	277	310	310	
Approvals		UL	UL	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9342.504**	**9342.514**	**9345.604**	**9345.614**	
Product-specific scope of supply						
Terminal cover		■	■	–	–	
Sliding blocks		■	■	■	■	
Connection straps		–	–	■	■	

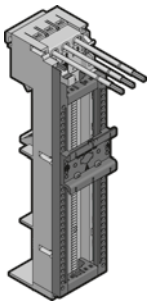
Circuit-breaker component adaptors

Rated current max. 500 A, 4-pole

						
Rated current max. A	Packs of	500	500	500	500	Page
Rated operating voltage V, ~		690, 4~	690, 4~	690, 4~	690, 4~	
Number of poles		4-pole	4-pole	4-pole	4-pole	
Cable outlet		Bottom	Bottom	Bottom	Bottom	
Type of connection		–	–	–	–	
Connection of round conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H)		–	–	–	–	
For switchgear make (model)		ABB (Tmax T5)	Schneider Electric (NS(X)400, NS(X)630)	Eaton (NZM3-4-XKR130)	Siemens (VL400)	
Width mm		185	185	185	185	
Height mm		300	300	300	300	
Approvals		–	–	–	–	
For bar systems with centre-to-centre spacing mm		60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9345.704**	**9345.714**	**9345.724**	**9345.734**	
Product-specific scope of supply						
Copper spacer roll		■	■	■	■	
Connection screws		■	■	■	■	
Contact plates		■	–	–	–	

OM adaptors with connection cables

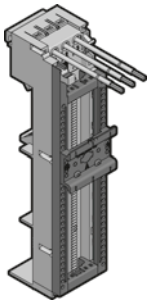
Switchgear assignment



For make/model	ABB													Eaton															
	Circuit-breaker				Starter			Reversing starter			Soft starter			Circuit-breaker						Starter						Reversing starter			Soft starter	
	MS 116/132	MS 325	MS 450/451	MS 495/496/497	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + PSR3, PSR6, PSR9, PSR12, PSR16, PSR25	MS 325 + PSR25	MS 450 + PSR30	PKZM0	PKZM01	PKZM4	PKE12	PKE32	PKE65	MSC-D + M7 - M15	MSC-D + M17 - M32	PKZM4 + DILM 17-65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	MSC - R ... M7 - M12	MSC - R ... M17 - M32	PKE 65 + DILM 65	PKE 12, PKE 32 + DS7-340	PKZ0 + DS7-340
	Construction width													Construction width															
	45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45
Model No.	**Version**	**Required quantity (pieces)**													**Required quantity (pieces)**															
9340.340	OM adaptor 25 A, AWG 12, W = 45 mm	1													1		1	1												
9340.350	OM adaptor 32 A, AWG 10, W = 45 mm					1								1																
9340.370	OM adaptor 25 A, AWG 12, W = 45 mm								1											1						1				
9340.380	OM adaptor 32 A, AWG 10, W = 45 mm																				1						1			
9340.390	OM adaptor 32 A, AWG 10, W = 45 mm						1			1	1	1											1	1					1	1
9340.430	OM adaptor 65 A, AWG 6, W = 55 mm			1	1											1			1										
9340.450	OM adaptor 65 A, AWG 6, W = 55 mm							1		1			1									1			1					
9340.460	OM adaptor 32 A, AWG 10, W = 55 mm		1																											
9340.260	OM support, 45 x 208 mm								1	1																1	1			
9340.270	OM support, 55 x 272 mm										1																			
9342.860	Support rail TS45D, 35 x 10 mm	1							1																					
9342.870	Support rail TS45D-V, 35 x 10 mm					1																					1			
9340.290	Insert strip, 10 x 208 mm				2			2			3																			
9340.280	Connection pin								3	3	3															3	3			

OM adaptors with connection cables

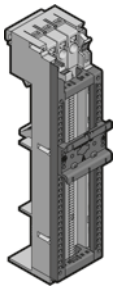
Switchgear assignment



For make/model	Siemens																	Schneider Electric														
	Circuit-breaker					Starter								Reversing starter					Circuit-breaker			Starter							Reversing starter					Soft starter
	3RV10 11... (S00)	3RV10 21... (S0)	3RV10 31... (S2)	3RV20 11... (S00) screw terminal	3RV20 21... (S0) screw terminal up to 40 A	3RA11 10... (S00)	3RA11 20... (S0)	3RA11 30... (S2)	3RA21 10... (S00) screw terminal	3RV20 11...(S00 + S0) spring terminal block	3RA21 20... (S00/S0) screw terminal	3RA21 20... (S0) screw terminal	3RA61 20...	3RA12 10... (S00 + S00)	3RA11 20... (S0 + S0)	3RV10 31.. + 3RT103... (S2 + S2)	3RA22 10... (S00) screw terminal	3RA22 20... (S0) screw terminal	GV2 - ME (screw terminal and spring terminal block)	GV2 - P	GV2 - RT, LE10, L10	GV3 BIS 65A	GV2 P + LC1D	GV2 ME + LC1D	GV2 - DM102 + LC1D/LC1K	GV2 - DP + LC1D/LC1K	GV3 + LC1D65	LUB 12	LUB 32	GV2 P + LC2D (AC)	GV2 ME + LC2D/LC2K (AC)	GV2 DM + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 ME + ATS
	Construction width																		Construction width														
	45	45	55	45	45	45	45	55	45	45	45	45	45	90	100	120	90	90	45	55	45	55	45	45	45	45	55	45	45	90	90	90	90	90	45
ModelNo.	**Version**	**Required quantity (pieces)**																		**Required quantity (pieces)**														
9340.760	OM adaptor 16 A, AWG 12, W = 45 mm										1																							
9340.340	OM adaptor 25 A, AWG 12, W = 45 mm	1	1		1														1		1							1						
9340.350	OM adaptor 32 A, AWG 10, W = 45 mm											1	1					1					1	1	1	1			1	1	1	1	1	
9340.770	OM adaptor 32 A, AWG 10, W = 45 mm													1																				
9340.370	OM adaptor 25 A, AWG 12, W = 45 mm						1	1		1					1	1		1																
9340.390	OM adaptor 25 A, AWG 12, W = 45 mm																																	1
9340.430	OM adaptor 65 A, AWG 6, W = 55 mm			1																1		1												
9340.450	OM adaptor 65 A, AWG 6, W = 55 mm								1							1											1							
9340.720	OM adaptor 40 A, AWG 8, W = 55 mm					1																												
9340.260	OM support, 45 x 208 mm														1	1		1												1	1	1	1	1	
9340.270	OM support, 55 x 272 mm																1		1																
9340.290	Insert strip, 10 x 208 mm															1	1																		
9340.280	Connection pin														3	3	3	3	3												3	3	3	3	3	
9342.800	PinBlock, W = 45 mm											1	1											1	1	1	1				2	2	2	2	2	
9342.820	PinBlock PLUS													1										1	1	1	1								

OM adaptors with spring terminal blocks

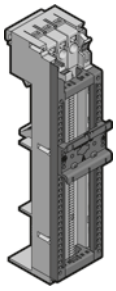
Switchgear assignment



For make/model	ABB													Eaton														
	Circuit-breaker				Starter			Reversing starter			Soft starter			Circuit-breaker						Starter						Reversing starter			Soft starter		
	MS 116/132	MS 325	MS 450/451	MS 495/496/497	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + AF09, AF12, AF16	MS 132 + AF09, AF12, AF16, AF26, AF30, AF38	MS 450 + A40, A50	MS 116 + PSR3, PSR6, PSR9, PSR12, PSR16, PSR25	MS 325 + PSR25	MS 450 + PSR30	PKZM0	PKZM01	PKZM4	PKE12	PKE32	PKE65	MSC-D + M7 - M15	MSC-D + M17 - M32	PKZM4 + DILM 17-65	MSC - DE ... M7 - M12	MSC - DE ... M17 - M32	PKE 65 + DILM 65	MSC - R ... M7 - M12	MSC - R ... M17 - M32	PKE 65 + DILM 65	PKE 12 + DS7-340	PKE 32 + DS7-340	PKZ0 + DS7-340
	Construction width													Construction width														
	45	54	55	70	45	45	70	90	90	140	45	45	55	45	45	55	45	45	55	45	45	55	45	45	55	90	90	110	45	45	45
Model No.	**Version**	**Required quantity (pieces)**													**Required quantity (pieces)**															
9340.530	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm	1				1								1	1		1	1													
9340.550	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm								1											1	1					1	1				
9340.560	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm						1			1		1	1										1	1					1	1	1
9340.660	OM adaptor 32 A, 1.5 - 6 mm², W = 55 mm		1																												
9340.630	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm			1	1											1			1												
9340.650	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm							1			1		1									1			1			1			
9340.260	OM support, 45 x 208 mm								1	1																1	1				
9340.270	OM support, 55 x 272 mm										1																	1			
9340.290	Insert strip, 10 x 208 mm				2			2			3																				
9340.280	Connection pin								3	3	3															3	3	3			
9340.860	Cable set AWG 12	3				3			3			3	3				3			3			3			3			3		
9340.870	Cable set AWG 10		3				3			3				3	3			3			3			3			3			3	3
9340.890	Cable set AWG 6			3	3			3			3		3			3			3			3			3			3			
9342.860	Support rail TS45D, 35 x 10 mm	1																													
9342.930	Support rail TS55D, 35 x 10 mm								1																						

OM adaptors with spring terminal blocks

Switchgear assignment



For make/model		Siemens															Schneider Electric											
		Circuit-breaker					Starter						Reversing starter				Circuit-breaker				Starter						Reversing starter		Soft starter
		3RV10 11... (S00)	3RV10 21... (S0)	3RV10 31... (S2)	3RV20 11... (S00) screw terminal	3RV20 21... (S0) screw terminal up to 40 A	3RA11 10... (S00)	3RA11 20... (S0)	3RA11 30... (S2)	3RA21 10... (S00) screw terminal	3RA21 20... (S00/S0) screw terminal	3RA21 20... (S0) screw terminal	3RA12 10... (S00 + S00)	3RA11 20... (S0 + S0)	3RV10 31.. + 3RT103... (S2 + S2)	3RA22 10... (S00) screw terminal	3RA22 20... (S0) screw terminal	GV2 - ME (screw terminal and spring terminal block)	GV2 - P	GV2 - RT, LE10, L10	GV3 BIS 65A	GV2 P + LC1D	GV2 ME + LC1D	GV2 - DM102 + LC1D/LC1K	GV2 - DP + LC1D/LC1K	GV3 + LC1D65	LUB 12	LUB 32	GV2 P + LC2D (AC)	GV2 ME + LC2D/LC2K (AC)	GV2 DM + LC2D/LC2K	GV2 DP + LC2D/LC2K	GV2 ME + ATS
		Construction width															Construction width														
		45	45	55	45	45	45	45	55	45	45	45	90	100	120	90	90	45	55	45	55	45	45	45	45	55	45	45	90	90	90	90	45
Model No.	**Version**	**Required quantity (pieces)**																**Required quantity (pieces)**														
9340.530	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm	1	1		1	1												1		1							1	1				
9340.550	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm						1	1		1	1	1	1	1		1	1					1	1	1	1				1	1	1	1	
9340.560	OM adaptor 32 A, 1.5 - 6 mm², W = 45 mm																																1
9340.630	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm			1															1		1												
9340.650	OM adaptor 65 A, 2.5 - 16 mm², W = 55 mm								1						1											1							
9340.260	OM support, 45 x 208 mm												1	1		1	1												1				
9340.270	OM support, 55 x 272 mm														1																		
9340.290	Insert strip, 10 x 208 mm													1																			
9340.280	Connection pin												3	3	3														3	3	3	3	
9340.860	Cable set AWG 12	3			3		3			3	3	3	3			3											3						
9340.870	Cable set AWG 10		3					3						3			3	3		3		3	3	3	3			3	3	3	3	3	3
9340.880	Cable set AWG 8					3																											
9340.890	Cable set AWG 6			3					3						3				3		3					3							
9342.820	PinBlock PLUS																	1							1				1	1	1	1	

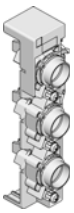
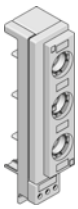
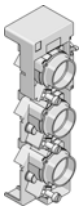
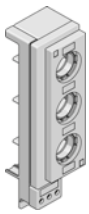
Bus-mounting fuse base

Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

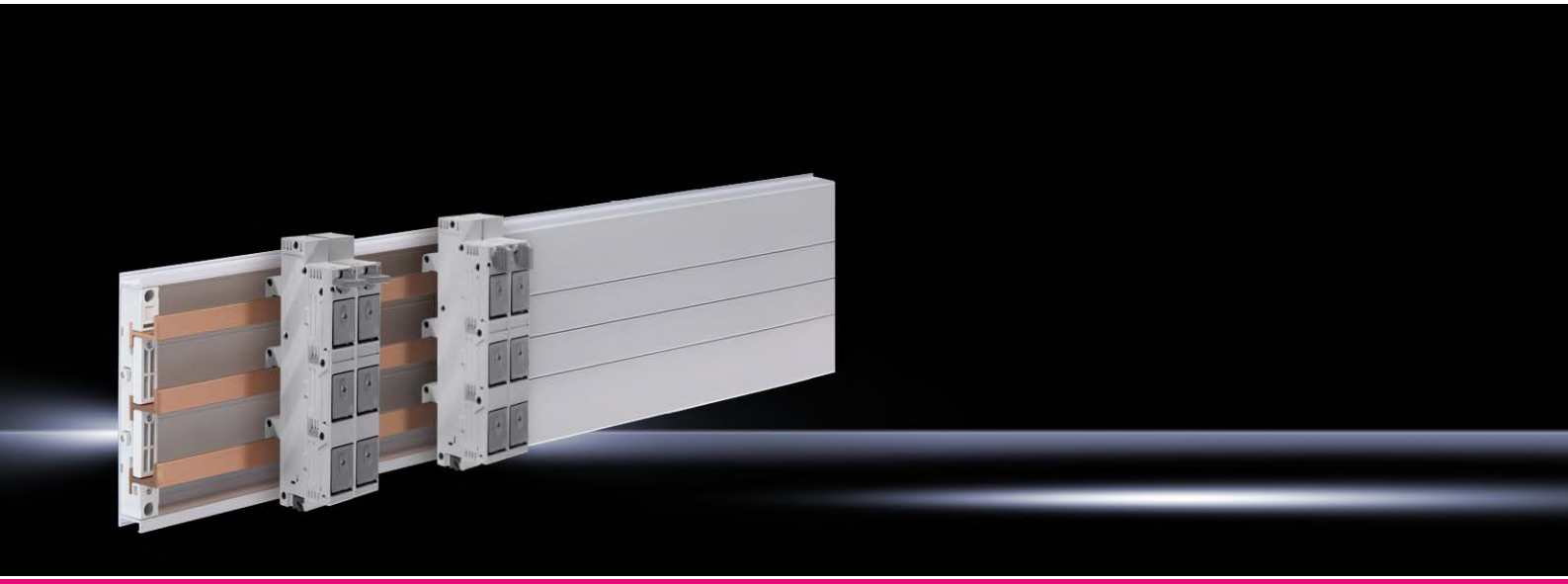
Material:
- Bus-mounting fuse base: Fibreglass-reinforced, thermoplastic polyester (PBT)
- Contact hazard protection: Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- For the use of fuse inserts to EN 60 269-3 (DIN VDE 0636-3)

								
Design		–	Easy Connect	–	Easy Connect	–	Easy Connect	Page
Fuse inserts		D 02-E 18 (adaptor sleeve)	D 02-E 18 (adaptor sleeve)	D II-E 27 (adaptor screw)	D II-E 27 (adaptor screw)	D III-E 33 (adaptor screw)	D III-E 33 (adaptor screw)	
Rated current max. A		63	63	25	25	63	63	
Rated operating voltage V, ~		400, 3~ 400 (DC)	400, 3~ 400 (DC)	500, 3~ 500 (DC)	500, 3~ 500 (DC)	690, 3~ 690 (DC)	690, 3~ 690 (DC)	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Type of connection		Box terminal	Box terminal	Box terminal	Box terminal	Box terminal	Box terminal	
Connection of round conductors mm²		1.5 - 25	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 25	1.5 - 16	
Width mm		27	41	42	56	57	71	
Height mm		209	251	209	251	209	251	
For bar systems with centre-to-centre spacing mm		60	60	60	60	60	60	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	5/10	
Model No.		**3418.010**	**3418.040**	**3427.010**	**3427.040**	**3433.010**	**3433.040**	
	Packs of	10 pc(s).	5 pc(s).	10 pc(s).	5 pc(s).	10 pc(s).	5 pc(s).	
Product-specific scope of supply								
Pre-configured element ready for connection including cover plate, contact hazard protection and exterior connection clamps		–	■	–	■	–	■	
Also required								
Contact hazard protection cover plate	10 pc(s).	3418.020	–	3427.020	–	3433.020	–	356
Accessories								
Connection space extender	10 pc(s).	3418.030	–	3427.030	–	3433.030	–	356
Cover, side	10 pc(s).	3093.010	–	3093.020	–	3093.020	–	356

Bus-mounting fuse base D-Switch



Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- Chassis: RAL 7035
- Fuse holder: RAL 7001

Supply includes:
- Retaining springs for D 01 and 10 x 38 mm fuses

Basis of test:
- IEC/DIN EN 60 947-3

Note:
- For the use of fuse inserts to EN 60 269-3 (DIN VDE 0636-3)
- With integral visual fuse monitoring via flashing indicator and operating status display as well as cable routing for conductors up to 6 mm²

Fuse inserts	Packs of	D 01 (with retaining spring) D 02 (with Neozed adaptor sleeve) 10 x 38 (with retaining spring)	Page
Rated operating current max. A		63	
Rated operating voltage V, ~		400, 3~	
Number of poles		3-pole	
Voltage, indicator light V		100 - 400	
Type of connection		Box terminal	
Connection of round conductors mm²		1.5 - 25	
Width mm		27	
Height mm		226	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5/10	
Model No.	3 pc(s).	**9340.950**	
Accessories			
Wiring duct	10 pc(s).	9340.905	356

NH fuse-switch-disconnectors, size 000

Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Colour:
- Chassis: RAL 9011
- Cover: RAL 7035

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 000, for mounting plate assembly

Size	Packs of	000	Page
Rated operating current max. A		100	
Rated operating voltage V, ~		690, 3~	
Number of poles		3-pole	
Cable outlet		Top/bottom	
Type of connection		Box terminal	
Connection of round conductors mm^2		1.5 - 50	
Clamping area for laminated copper bars (W x H) mm		10 x 10	
Width mm		89	
Height mm		141.5	
For mounting plate assembly		■	
Model No.	1 pc(s).	**3431.000**	
Accessories			
Micro-switch	5 pc(s).	3071.000	358

NH fuse-switch-disconnectors, size 000

Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

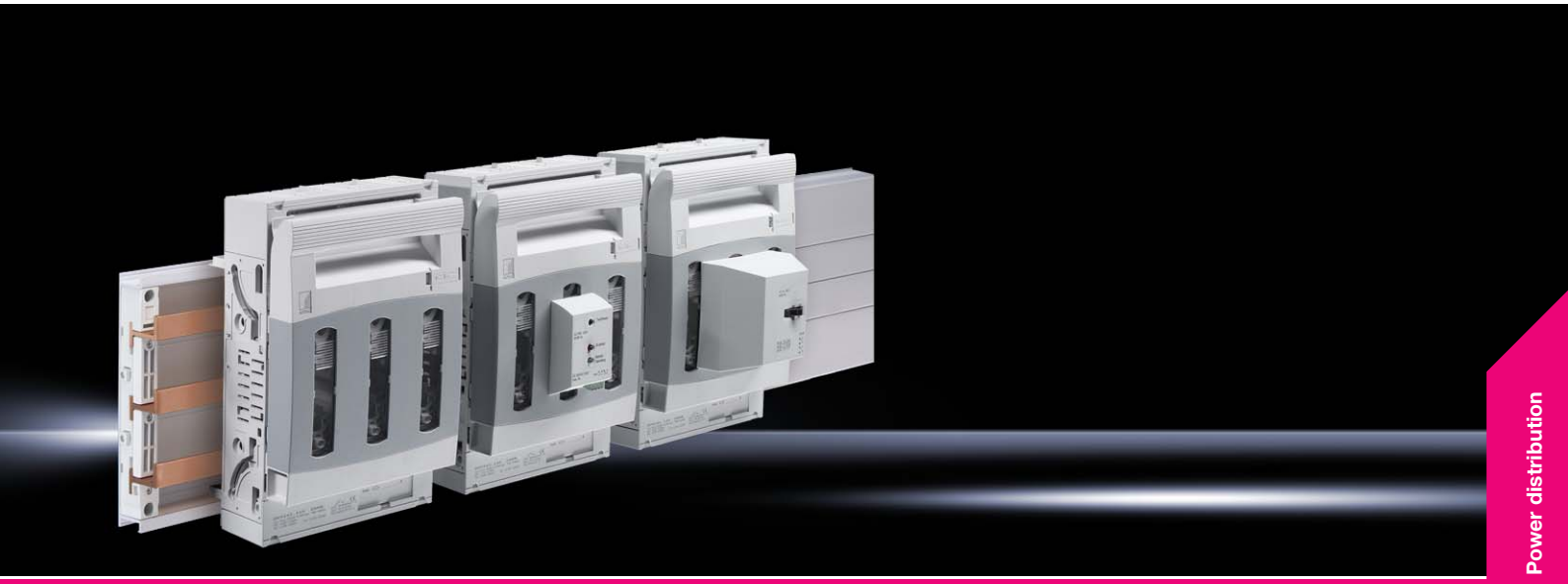
Colour:
- Chassis: RAL 7035
- Cover: RAL 7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 000

Size	Packs of	000	000	000	Page
Rated operating current max. A		100	100	100	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top	Bottom	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	
Connection of round conductors mm^2		2.5 - 50	2.5 - 50	2.5 - 50	
Width mm		53	53	53	
Height mm		213	213	213	
With electronic fuse monitoring		–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	60	
For bar thickness mm		5/10	5/10	5/10	
Model No.	1 pc(s).	**3431.020**	**3431.030**	**3431.035**	
Accessories					
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	358

NH fuse-switch-disconnectors, size 00 to 3



Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Note:
- The technical data may vary for UR applications. Applications to UR only in conjunction with "Special Purpose Fuses".

Size 00

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm²		4 - 95	10 - 95	4 - 95	10 - 95	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
Approvals		UR	UR	UR	UR	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.000**	**9343.010**	**9344.000**	**9344.010**	
Accessories						
Box terminal		–	–	–	–	
Connection space cover	2 pc(s).	9344.520	9344.520	9344.520	9344.520	357
Arcing chamber		–	–	–	–	
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	358
Laminated copper bar		see page	see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.070	–	–	–	333

NH fuse-switch-disconnectors, size 00 to 3

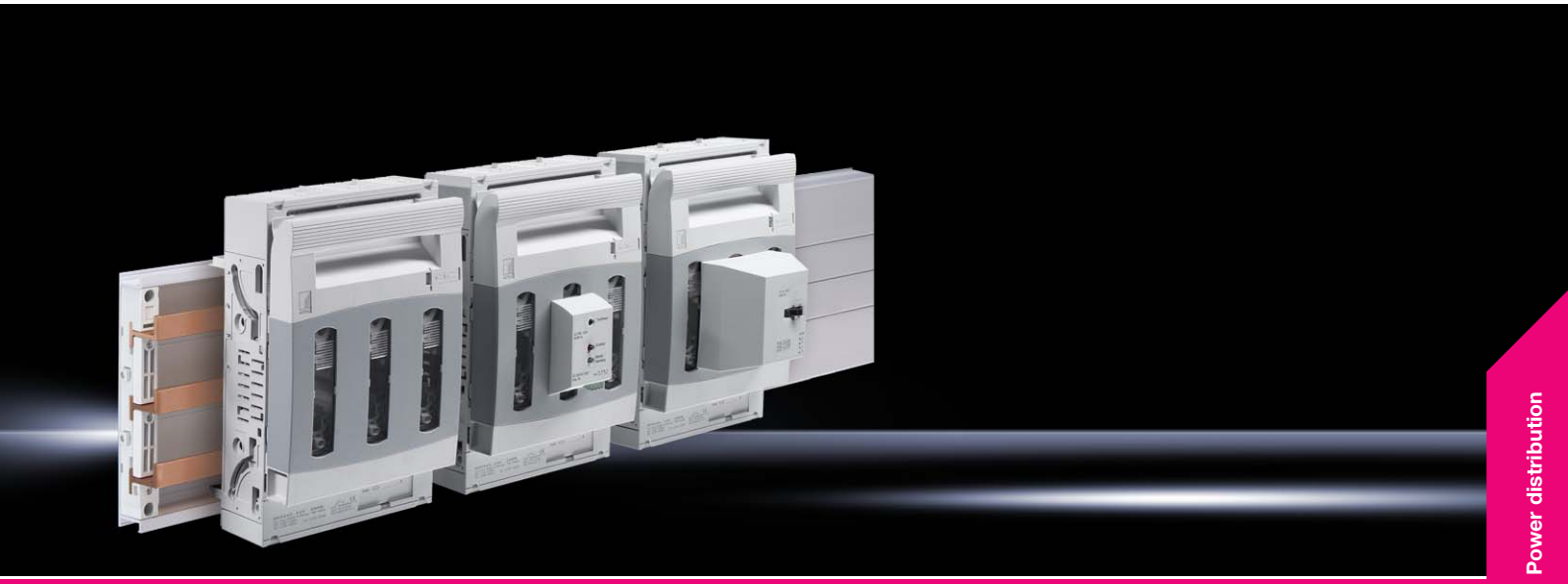
Size 1

Size	Packs of	1	1	1	1	Page
Rated operating current max. A		250	250	250	250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Box terminal	Screw M10	
Connection of round conductors mm^2		35 - 150	10 - 150	35 - 150	10 - 150	
Connection of sector-shaped conductors mm^2		50 - 150	–	50 - 150	–	
Clamping area for laminated copper bars (W x H) mm		20 x 3 - 14	32 x 10	20 x 3 - 14	32 x 10	
Width mm		184	184	184	184	
Height mm		298	298	298	298	
Approvals		UR	UR	UR	UR	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.100**	**9343.110**	**9344.100**	**9344.110**	
Accessories						
Box terminal	3 pc(s).	–	9344.610	–	9344.610	357
Connection space cover	2 pc(s).	9344.530	9344.530	9344.530	9344.530	357
Arcing chamber	3 pc(s).	9344.680	9344.680	9344.680	9344.680	357
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	358
Laminated copper bar		see page	see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.170	–	–	–	333

Size 2 – 3

Size	Packs of	2	2	2	3	3	3	Page
Rated operating current max. A		400	400	400	630	630	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	Box terminal	Screw M10	Screw M10	
Connection of round conductors mm^2		95 - 300	10 - 240	10 - 240	95 - 300	10 - 300	10 - 300	
Connection of sector-shaped conductors mm^2		120 - 300	–	–	120 - 300	–	–	
Clamping area for laminated copper bars (W x H) mm		32 x 10 - 20	50 x 10	50 x 10	32 x 10 - 20	50 x 10	50 x 10	
Width mm		210	210	210	250	250	250	
Height mm		298	298	298	298	298	298	
Approvals		UR	UR	UR	UR	UR	UR	
For mounting plate assembly		–	–	■	–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	–	60	60	–	
For bar thickness mm		5/10	5/10	–	5/10	5/10	–	
Model No.	1 pc(s).	**9343.200**	**9343.210**	**9344.210**	**9343.300**	**9343.310**	**9344.310**	
Accessories								
Box terminal	3 pc(s).	–	9344.620	9344.620	–	9344.620	9344.620	357
Connection space cover	2 pc(s).	9344.540	9344.540	9344.540	9344.550	9344.550	9344.550	357
Arcing chamber	3 pc(s).	9344.680	9344.680	9344.680	9344.680	9344.680	9344.680	357
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	9344.510	9344.510	358
Laminated copper bar		see page	see page	see page	see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.270	–	–	9343.370	–	–	333

NH fuse-switch-disconnectors, size 00 to 3



Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, with electronic fuse monitoring

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm²		4 - 95	10 - 95	4 - 95	10 - 95	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.020**	**9343.030**	**9344.020**	**9344.030**	
Accessories						
Box terminal		–	–	–	–	
Connection space cover	2 pc(s).	9344.520	9344.520	9344.520	9344.520	357
Arcing chamber		–	–	–	–	
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	358
Laminated copper bar		see page	see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.070	–	–	–	333

NH fuse-switch-disconnectors, size 00 to 3

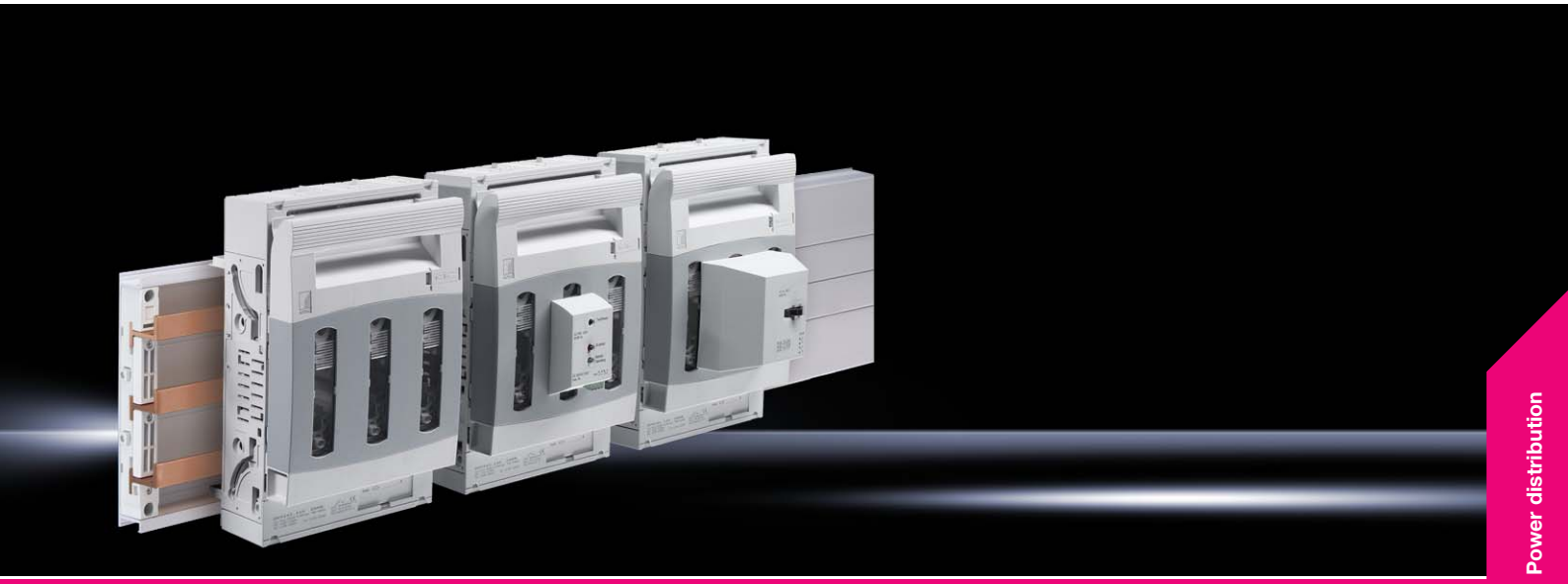
Size 1, with electronic fuse monitoring

Size	Packs of	1	1	1	Page
Rated operating current max. A		250	250	250	
Rated operating voltage V, ~		400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm^2		35 - 150	10 - 150	10 - 150	
Connection of sector-shaped conductors mm^2		50 - 150	–	–	
Clamping area for laminated copper bars (W x H) mm		20 x 3 - 14	32 x 10	32 x 10	
Width mm		184	184	184	
Height mm		298	298	298	
For mounting plate assembly		–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Model No.	1 pc(s).	**9343.120**	**9343.130**	**9344.130**	
Accessories					
Box terminal	3 pc(s).	–	9344.610	9344.610	357
Connection space cover	2 pc(s).	9344.530	9344.530	9344.530	357
Arcing chamber	3 pc(s).	9344.680	9344.680	9344.680	357
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	358
Laminated copper bar		see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.170	–	–	333

Size 2 – 3, with electronic fuse monitoring

Size	Packs of	2	2	3	3	Page
Rated operating current max. A		400	400	630	630	
Rated operating voltage V, ~		400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	400 - 690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M10	Screw M10	Screw M10	Screw M10	
Connection of round conductors mm^2		10 - 240	10 - 240	10 - 300	10 - 300	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		50 x 10	50 x 10	50 x 10	50 x 10	
Width mm		210	210	250	250	
Height mm		298	298	298	298	
For mounting plate assembly		–	■	–	■	
For bar systems with centre-to-centre spacing mm		60	–	60	–	
For bar thickness mm		5/10	–	5/10	–	
Model No.	1 pc(s).	**9343.230**	**9344.230**	**9343.330**	**9344.330**	
Accessories						
Box terminal	3 pc(s).	9344.620	9344.620	9344.620	9344.620	357
Connection space cover	2 pc(s).	9344.540	9344.540	9344.550	9344.550	357
Arcing chamber	3 pc(s).	9344.680	9344.680	9344.680	9344.680	357
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	358
Laminated copper bar		see page	see page	see page	see page	346
Smart monitoring system		–	–	–	–	

NH fuse-switch-disconnectors, size 00 to 3



Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, with electromechanical fuse monitoring

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	
Connection of round conductors mm^2		4 - 95	10 - 95	4 - 95	10 - 95	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 5	13 x 13	20 x 5	
Width mm		106	106	106	106	
Height mm		194	194	194	194	
For mounting plate assembly		–	–	■	■	
For bar systems with centre-to-centre spacing mm		60	60	–	–	
For bar thickness mm		5/10	5/10	–	–	
Model No.	1 pc(s).	**9343.040**	**9343.050**	**9344.040**	**9344.050**	
Accessories						
Box terminal		–	–	–	–	
Connection space cover	2 pc(s).	9344.520	9344.520	9344.520	9344.520	357
Arcing chamber		–	–	–	–	
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	358
Laminated copper bar		see page	see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.070	–	–	–	333

NH fuse-switch-disconnectors, size 00 to 3

Size 1, with electromechanical fuse monitoring

Size	Packs of	1	1	1	Page
Rated operating current max. A		250	250	250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M10	Screw M10	
Connection of round conductors mm^2		35 - 150	10 - 150	10 - 150	
Connection of sector-shaped conductors mm^2		50 - 150	–	–	
Clamping area for laminated copper bars (W x H) mm		20 x 3 - 14	32 x 10	32 x 10	
Width mm		184	184	184	
Height mm		298	298	298	
For mounting plate assembly		–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	–	
For bar thickness mm		5/10	5/10	–	
Model No.	1 pc(s).	**9343.140**	**9343.150**	**9344.150**	
Accessories					
Box terminal	3 pc(s).	–	9344.610	9344.610	357
Connection space cover	2 pc(s).	9344.530	9344.530	9344.530	357
Arcing chamber	3 pc(s).	9344.680	9344.680	9344.680	357
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	358
Laminated copper bar		see page	see page	see page	346
Smart monitoring system	1 pc(s).	9343.170	–	–	333

Size 2 – 3, with electromechanical fuse monitoring

Size	Packs of	2	2	3	3	Page
Rated operating current max. A		400	400	630	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M10	Screw M10	Screw M10	Screw M10	
Connection of round conductors mm^2		10 - 240	10 - 240	10 - 300	10 - 300	
Connection of sector-shaped conductors		–	–	–	–	
Clamping area for laminated copper bars (W x H) mm		50 x 10	50 x 10	50 x 10	50 x 10	
Width mm		210	210	250	250	
Height mm		298	298	298	298	
For mounting plate assembly		–	■	–	■	
For bar systems with centre-to-centre spacing mm		60	–	60	–	
For bar thickness mm		5/10	–	5/10	–	
Model No.	1 pc(s).	**9343.250**	**9344.250**	**9343.350**	**9344.350**	
Accessories						
Box terminal	3 pc(s).	9344.620	9344.620	9344.620	9344.620	357
Connection space cover	2 pc(s).	9344.540	9344.540	9344.550	9344.550	357
Arcing chamber	3 pc(s).	9344.680	9344.680	9344.680	9344.680	357
Micro-switch	2 pc(s).	9344.510	9344.510	9344.510	9344.510	358
Laminated copper bar		see page	see page	see page	see page	346
Smart monitoring system		–	–	–	–	

NH fuse-switch disconnectors Page 325

Compact measurement unit consisting of measurement data acquisition unit, evaluation electronics, communication module, measurement power supply and flash data memory.

Functions:
- Continuous measurement of energy-related data
- Data logging in CSV format (Excel)
- Individual limit monitoring and alarm function
- May be integrated into the CMC III monitoring system
- Automatic address allocation via CAN bus

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Supply includes:
- NH measurement module
- Connector 2 x 2.5 mm² with preassembled bridge
- USB cable (mini-B connector on micro-B jack)

NH measurement module for NH fuse-switch disconnectors

For size	Packs of	00	1	2	3	Page
To fit Model No.		9343.000/ 9343.020/ 9343.040	9343.100/ 9343.120/ 9343.140	9343.200	9343.300	
Rated operating current max. A		150	250	400	600	
Rated operating voltage V, ~		400, 3~	400, 3~	400, 3~	400, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Bottom	Bottom	Bottom	Bottom	
Type of connection		Box terminal	Box terminal	Box terminal	Box terminal	
Connection of round conductors mm²		4 - 95	35 - 150	95 - 300	95 - 300	
Connection of sector-shaped conductors mm²		–	50 - 150	120 - 300	120 - 300	
Clamping area for laminated copper bars (W x H) mm		13 x 13	20 x 3 - 14	32 x 10 - 20	32 x 10 - 20	
Width mm		102	170	185	214	
Height mm		108	123	123	123	
Depth mm		68	92	107	107	
Precision class measurement output (voltage/current/power)		0.2 / 1.5 / 2	0.2 / 1.5 / 2	0.2 / 1.5 / 2	0.2 / 1.5 / 2	
Interfaces		2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	2 x CAN bus (RJ45) 2 x Modbus RTU (RJ45) 1 x USB	
Model No.	1 pc(s).	**9343.070**	**9343.170**	**9343.270**	**9343.370**	

Accessories

LCD display

for monitoring

Functions:
– Illuminated display with more than 50 measurement parameters
– Intuitive configuration of alarm and limit values
– Voltage supply for display via pluggable RJ12 patch cable

Material:
– Polyphenylene ether (PPE)

Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 51 (front)
– IP 41 (enclosure)

Supply includes:
– LCD display
– Modbus RTU cable (RJ12), length: 2 m

Interfaces	1 x Modbus RTU (RJ12)
Operating temperature range	-5 °C...+55 °C
Storage temperature range	-25 °C...+70 °C
Operating humidity range %	5 - 95
Width mm	96
Height mm	96
Depth mm	46
Packs of	1 pc(s).
Model No.	**9343.410**

Also required:

– Power pack, see page 334

Power pack

for LCD display

For mounting on support rails to EN 60 715, 7.5 mm high.

Material:
– Polycarbonate
– Fire protection corresponding to UL 94-V0

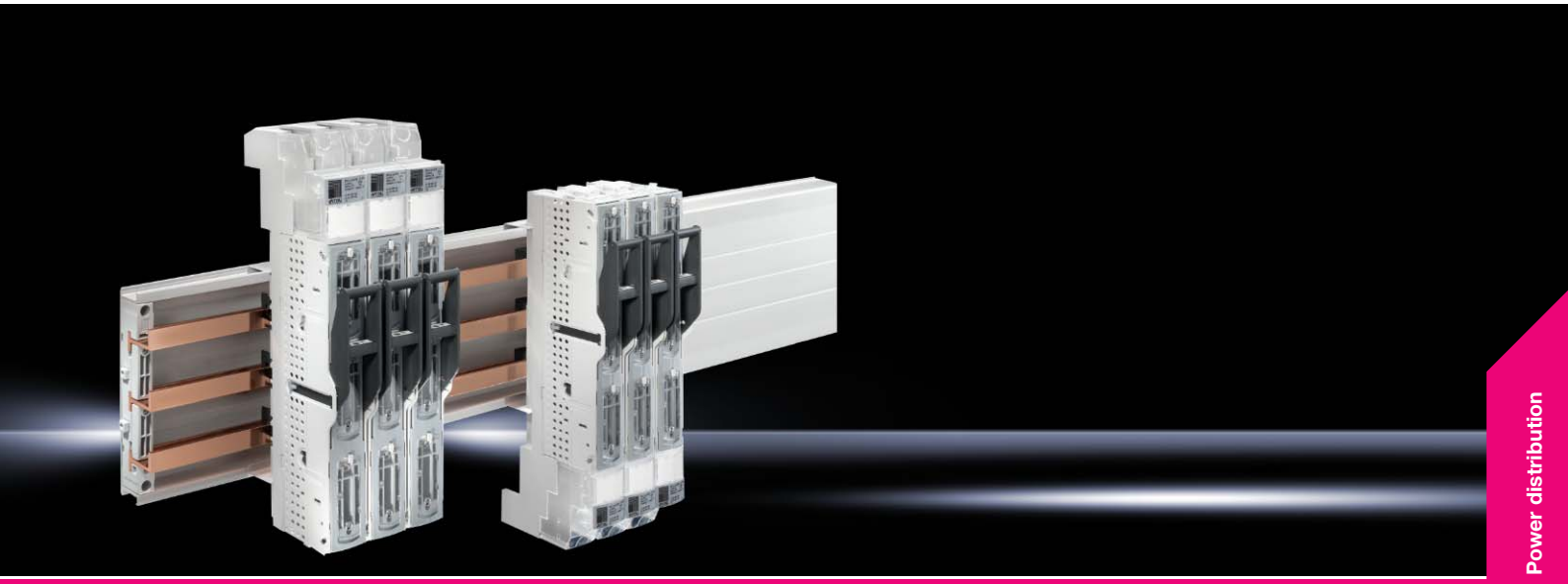
Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Power pack
– Connector 2 x 2.5 mm^2

Interfaces	1 x Modbus RTU (RJ12) 2 x Modbus RTU (RJ45)
Operating temperature range	-5 °C...+55 °C
Storage temperature range	-25 °C...+70 °C
Operating humidity range %	5 - 95
Width mm	71
Height mm	91
Depth mm	61
Rated operating voltage V, Hz	85 - 265 (AC/DC), 50/60
Output current (max.) A	0.42
Output voltage V (DC)	24
Packs of	1 pc(s).
Model No.	**9343.400**

NH slimline fuse-switch disconnectors



Busbar system Page 300 **Connection adaptors** Page 304 **NH slimline fuse-switch disconnectors 185 mm** Page 374

Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

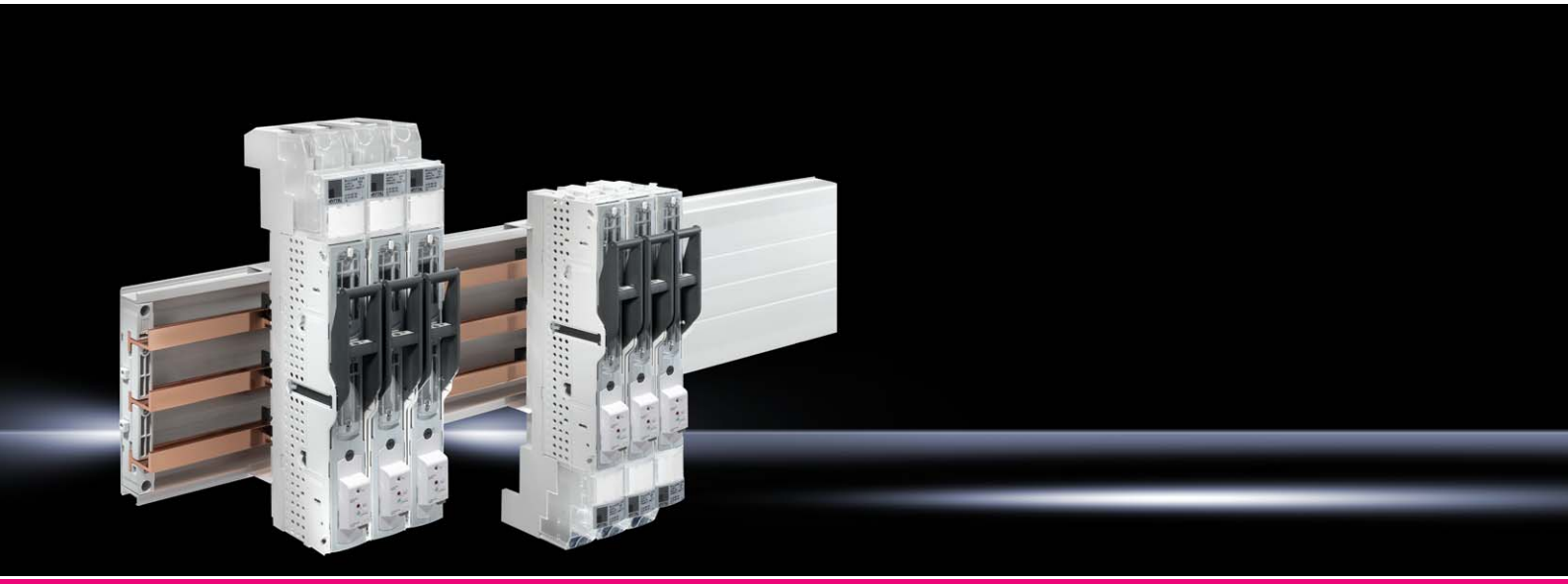
Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00

Size	Packs of	00	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Screw M8	Box terminal	Screw M8	Screw M8	
Connection of round conductors mm^2		2.5 - 95	2.5 - 95	2.5 - 95	2.5 - 95	2.5 - 95	
Width mm		50	50	50	50	50	
Height mm		400	400	400	400	400	
For converter installation		–	–	–	–	■	
For bar systems with centre-to-centre spacing mm		60	60	100	100	100	
For bar thickness mm		5/10	5/10	5/10	5/10	5/10	
Model No.	1 pc(s).	**9346.000**	**9346.010**	**9346.020**	**9346.030**	**9346.060**	
Product-specific scope of supply							
3 mounting hooks		■	■	■	■	–	
Accessories							
Connection space cover	1 pc(s).	9346.460	9346.460	9346.460	9346.460	9346.460	357
Clamp-type terminal connection	3 pc(s).	–	3592.010	–	3592.010	3592.010	358
Micro-switch	5 pc(s).	9346.400	9346.400	9346.400	9346.400	9346.400	358

NH slimline fuse-switch disconnectors



Busbar system Page 300 **Connection adaptors** Page 304 **NH slimline fuse-switch disconnectors 185 mm** Page 374

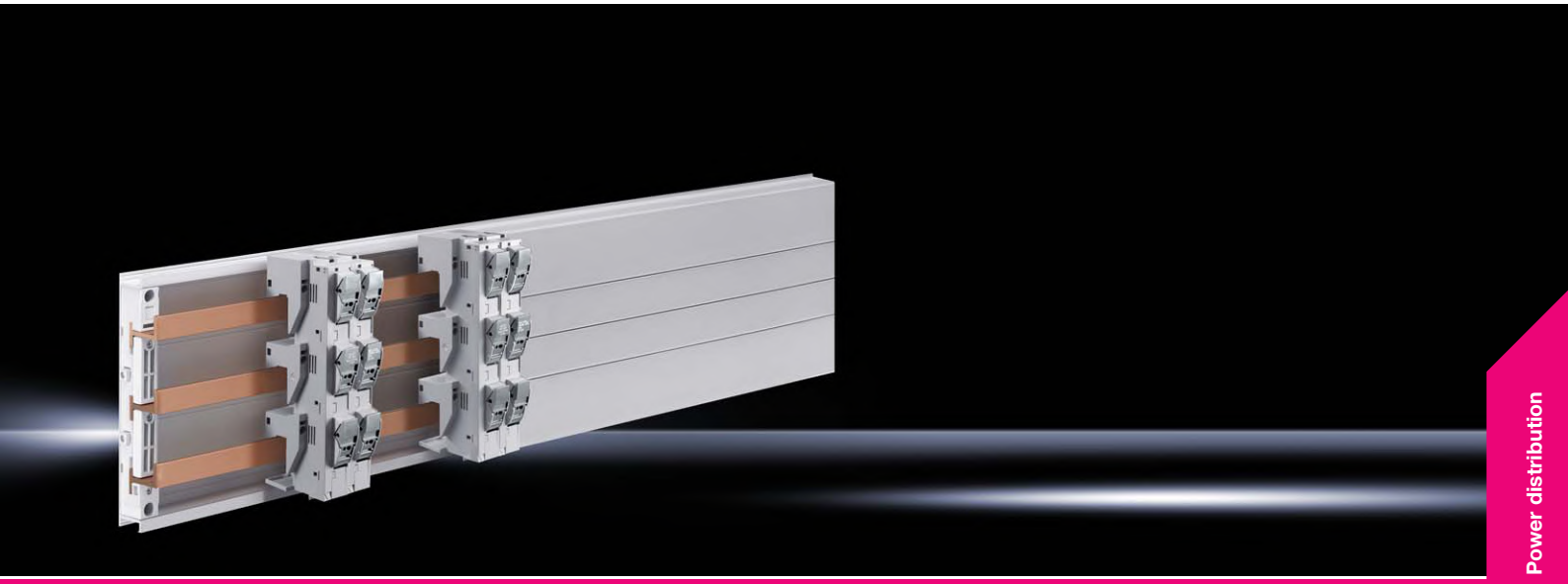
Material:
- Fibreglass-reinforced polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, with electronic fuse monitoring

Size	Packs of	00	Page
Rated operating current max. A		160	
Rated operating voltage V, ~		690, 3~	
Number of poles		3-pole	
Cable outlet		Top/bottom	
Type of connection		Screw M8	
Connection of round conductors mm^2		2.5 - 95	
Width mm		50	
Height mm		400	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5/10	
Model No.	1 pc(s).	**9346.015**	
Product-specific scope of supply			
3 mounting hooks		■	
Accessories			
Connection space cover	1 pc(s).	9346.460	357
Clamp-type terminal connection	3 pc(s).	3592.010	358
Micro-switch	5 pc(s).	9346.400	358



Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

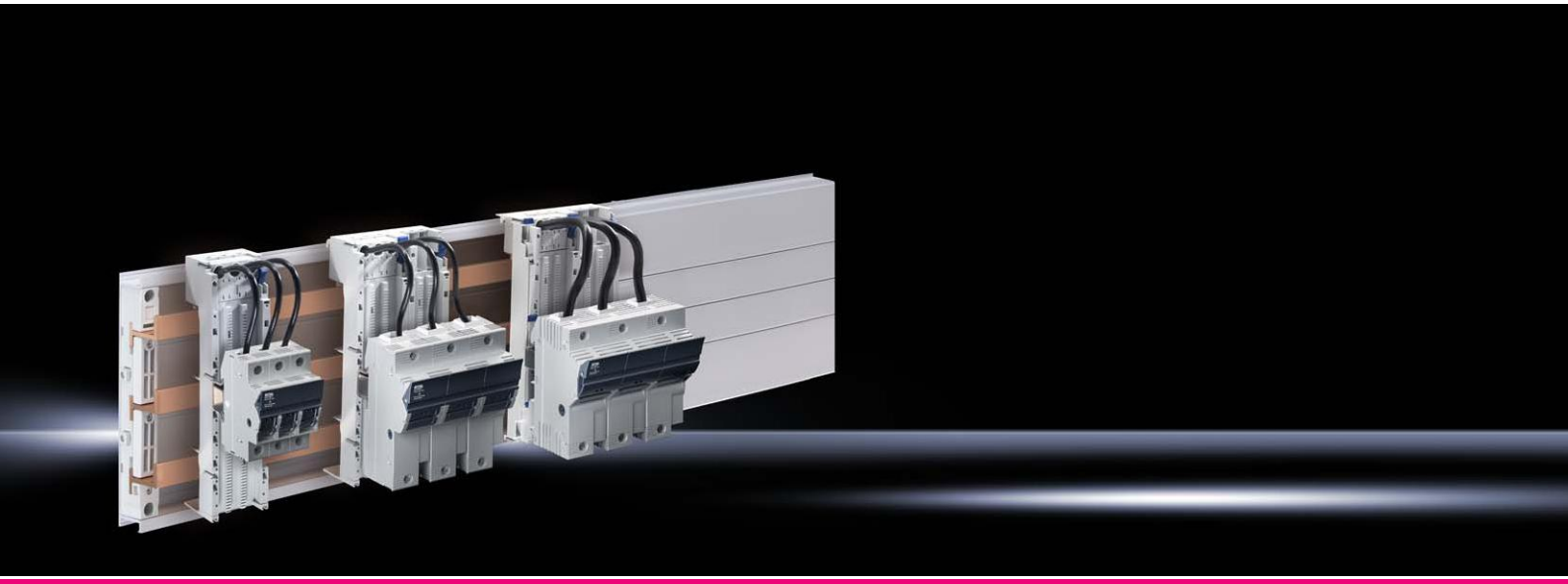
Basis of test:
– UL 4248-4

Note:
– Not suitable for accommodating fuses 10 x 38 mm to IEC 60 269-2/-4/-6

Rated operating current max. 30 A

Fuse type (class)	Packs of	CC	Page
Rated operating current max. A		30	
Rated operating voltage V, ~		600, 3~	
Number of poles		3-pole	
Fuse standard		UL 248-4	
Fuse size mm		10 x 38	
Voltage, indicator light V		110 - 600	
Connection of round conductors mm^2		1.5 - 6	
Connection of round conductors		AWG 10 - 16	
Width mm		27	
Height mm		200	
For bar systems with centre-to-centre spacing mm		60	
For bar thickness mm		5/10	
Model No.	4 pc(s).	**9345.040**	

Fuse holders



Busbar system Page 300 **Busbar connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Basis of test:
– UL 4248-1
– UL 4248-4
– UL 4248-8

Note:
– For snap-on mounting on 35 mm (7.5 mm/15 mm high) support rails to DIN EN 60 715 or RiLine component adaptor adaptor combinations (OM adaptors/supports)

Rated operating current max. 30 – 60 A

Fuse type (class)		CC	J	J	Page
Rated operating current max. A		30	30	60	
Rated operating voltage V, ~		600, 3~	600, 3~	600, 3~	
Number of poles		3-pole	3-pole	3-pole	
Fuse standard		UL 248-4	UL 248-8	UL 248-8	
Fuse size mm		10 x 38	21 x 57	27 x 60	
Voltage, indicator light V		110 - 600	110 - 600	110 - 600	
Connection of round conductors mm^2		0.75 - 25	1.5 - 50	2.5 - 50	
Connection of round conductors		AWG 8 - 18	AWG 1 - 18	AWG 1 - 14	
Not suitable for accommodating fuses 10 x 38 mm to IEC 60 269-2/-4/-6		■	–	–	
Width mm		54	108	120	
Height mm		81	115	118	
Model No.		**9345.005**	**9345.015**	**9345.035**	
	Packs of	4 pc(s).	2 pc(s).	2 pc(s).	

Mounting example on 60 mm bar systems

Required accessories		For fuse holder			Page
Designation	Model No.	**9345.005**	**9345.015**	**9345.035**	
OM support	9340.260	–	1 pc(s).	–	313
OM support	9340.270	–	–	1 pc(s).	313
Connection pin	9340.280	–	3 pc(s).	6 pc(s).	354
Insert strip	9340.290	–	1 pc(s).	1 pc(s).	353
OM adaptor	9340.410	–	1 pc(s).	1 pc(s).	309
OM adaptor	9340.460	1 pc(s).	–	–	308
Support rail	9342.880	–	1 pc(s).	–	352
Support rail	9342.950	1 pc(s).	1 pc(s).	2 pc(s).	352

Fuse holders

Busbar system Page 300 **Connection adaptors** Page 304 **OM adaptors** Page 307 **Circuit-breaker component adaptors** Page 314

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Electrolytic copper, silver-plated

Colour:
- Chassis: RAL 7035
- Cover: RAL 7035/7001

Note:
- UL (listed accessory) is met when using the fuse holder on RiLine busbar systems

Standards:
- UL 508

Rated operating current max. 100 – 400 A

Fuse type (class)	Packs of	J	J	J	Page
Rated operating current min. A		61	101	201	
Rated operating current max. A		100	200	400	
Rated operating voltage V, ~		600, 3~	600, 3~	600, 3~	
Number of poles		3-pole	3-pole	3-pole	
Fuse standard		UL 248-8	UL 248-8	UL 248-8	
Fuse size mm		29 x 118	41 x 146	54 x 181	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	Box terminal	Box terminal	
Connection of round conductors		AWG 2 – MCM 300	AWG 4/0 – MCM 600	AWG 4/0 – MCM 600	
Width mm		184	210	250	
Height mm		288	288	328	
Approvals		UL	UL	UL	
For bar systems with centre-to-centre spacing mm		60	60	60	
For bar thickness mm		5/10	5/10	5/10	
Model No.	1 pc(s).	**9345.100**	**9345.200**	**9345.400**	

Busbars/base isolators

Busbar supports

1-pole

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– Multi-pole systems with 60 mm bar centre distance may be configured by baying the busbar supports

Approvals:
– UL

Also required:
– Busbars E-Cu, see page 342
– PLS special busbars E-Cu, see page 344

Accessories:
– Spacer, see page 341

For busbar mm	12 x 5/10 15 x 5 - 30 x 10	PLS 1600
Note on Model No.	If 12 x 5/10 mm busbars are used, spacer 9340.090 is additionally required	–
PEN/N/PE support	■	■
Rated operating voltage V, ~	1000, 1~ 1500 (DC)	1000, 1~ 1500 (DC)
Number of poles	Single-pole	Single-pole
Product-specific scope of supply	–	Including raised section for stepped configuration of the PLS busbars
Packs of	4 pc(s).	4 pc(s).
Model No.	**9340.030**	**9342.030**

Busbar supports

2-pole

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Also required:
– Busbars E-Cu, see page 342

For busbar mm	12 x 5	12 x 5 - 30 x 10
Bar centre distance mm	70	60
PEN/N/PE support	■	■
N/PE support	■	■
Rated operating voltage V, ~	1000, 2~ 1500 (DC)	1000, 2~
Number of poles	2-pole	2-pole
Approvals	–	UL
Packs of	4 pc(s).	4 pc(s).
Model No.	**9600.005**	**9340.040**

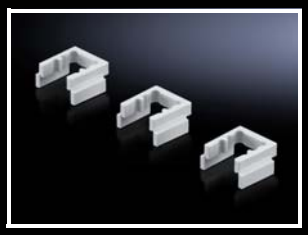
Spacer

for RiLine busbar supports (flat busbar system)
For adapting 12 x 5 and 12 x 10 mm size busbars.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Packs of	**Model No.**
9340.000/9340.004/ 9340.010/9340.030	12 pc(s).	**9340.090**



Base isolator

For configuring busbar systems with any given bar centre distances and for assembling insulated PE or PEN busbars.

Material:
– Duroplastic polyester (UP resin)

Height mm	40	50
Thread	M10	M10
Rated operating voltage kV	1	1
Tensile strength kN	12	13
Torsional strength Nm	75	90
Bending strength kN	6	6
Packs of	6 pc(s).	6 pc(s).
Model No.	**3031.000**	**3032.000**

Busbars

CUPONAL busbars

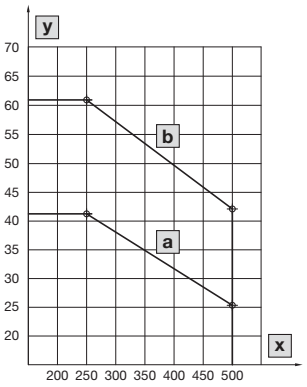
Copper-coated aluminium busbars, suitable for configuring busbar systems with busbar supports 9340.000/9340.050.

Material:
– Aluminium
– Copper

Note:
– The rated current is derived at 65 °C bar temperature and 35 °C ambient temperature
– Correction factor diagram to DIN EN 43 671
– May be cut individually to required length

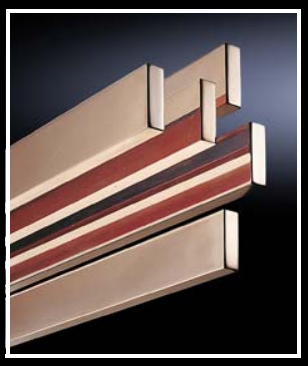
Standards:
– DIN EN 13 601

Short-circuit resistance diagram 9340.000/9340.050



x Busbar support spacing (mm)
y Ip Surge-current resistance (kA)
a CUPONAL 20 x 5/10 mm
b CUPONAL 30 x 5/10 mm

Dimensions mm	Length mm	Rated current max. A	Packs of	**Model No.**
20 x 5	2400	235	6 pc(s).	**3582.020**
20 x 10	2400	363	3 pc(s).	**3585.020**
30 x 5	2400	328	6 pc(s).	**3584.020**
30 x 10	2400	493	3 pc(s).	**3586.020**



Busbars E-Cu

Material:
– E-Cu F30

Note:
– May be cut individually to required length

Standards:
– DIN EN 13 601

Accessories:

– Busbar connector, see page 343
– Busbar cover section, see page 343
– Inserted screw nuts M12, see page 1039

Dimensions mm	Length mm	Approvals	Packs of	**Model No.**
12 x 5	2400	UL	6 pc(s).	**3580.000**
15 x 5	2400	UL	6 pc(s).	**3581.000**
20 x 5	2400	UL	6 pc(s).	**3582.000**
25 x 5	2400	UL	6 pc(s).	**3583.000**
30 x 5	2400	UL	6 pc(s).	**3584.000**
12 x 10	2400	UL	6 pc(s).	**3580.100**
15 x 10	2400	UL	6 pc(s).	**3581.100**
20 x 10	2400	UL	3 pc(s).	**3585.005**
30 x 10	2400	UL	3 pc(s).	**3586.005**
40 x 10	2400	–	3 pc(s).	**3587.000**
50 x 10	2400	–	2 pc(s).	**3588.005**
60 x 10	2400	–	2 pc(s).	**3589.005**
80 x 10	2400	–	1 pc(s).	**3590.005**
100 x 10	2400	–	1 pc(s).	**3590.015**
120 x 10	2400	–	1 pc(s).	**3590.020**

Busbar cover section

Contact hazard protection by covering the busbars.

Material:
– Thermally modified hard PVC.
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– May be cut individually to required length

For busbar mm	Length mm	Approvals	Packs of	**Model No.**
12/15 x 5	1000	–	4 pc(s).	**9350.010**
12/15 x 10	1000	–	4 pc(s).	**9350.060**
12 x 5 - 30 x 10	1000	UR	10 pc(s).	**3092.000**
40 - 60 x 10	1000	UR	10 pc(s).	**3085.000**

Busbar connector

For connecting rectangular busbars, no drilling required.

Approvals:
– UL

For busbar mm	Connection type	Material	Packs of	**Model No.**
12 x 5 - 15 x 10	Single connection	Console: St 37, nickel-plated Contact plate: E-Cu, nickel-plated	3 pc(s).	**9350.075**
20 x 5 - 30 x 10	Single connection	Top piece: Sheet steel, zinc-plated, passivated Contact plate: E-Cu, silver-plated	3 pc(s).	**9320.020**
20 x 5 - 30 x 10	Baying connection from enclosure to enclosure	Top piece: Sheet steel, zinc-plated, passivated Contact plate: E-Cu, silver-plated	3 pc(s).	**9320.030**

Busbars

PLS special busbars E-Cu

Material:
– E-Cu

Note:
– May be cut individually to required length

Approvals:
– UL

Accessories:

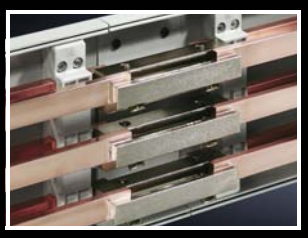
– PLS busbar connectors, see page 344
– PLS expansion connectors, see page 345

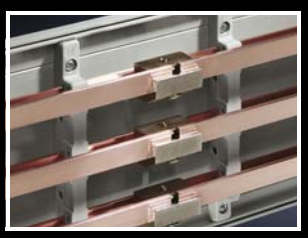
For system PLS 800

For enclosure width mm	Cross-section mm²	Length mm	Bar thickness mm	Packs of	Model No.
600	300	495	5	3 pc(s).	**3524.000**
800	300	695	5	3 pc(s).	**3525.000**
1000	300	895	5	3 pc(s).	**3525.010**
1200	300	1095	5	3 pc(s).	**3526.000**
–	300	2400	5	1 pc(s).	**3509.000**

For system PLS 1600

For enclosure width mm	Cross-section mm²	Length mm	Bar thickness mm	Packs of	Model No.
600	900	495	10	3 pc(s).	**3527.000**
800	900	695	10	3 pc(s).	**3528.000**
1000	900	895	10	3 pc(s).	**3528.010**
1200	900	1095	10	3 pc(s).	**3529.000**
–	900	2400	10	1 pc(s).	**3516.000**





PLS busbar connectors

For connecting the PLS special busbars; no drilling required.

Material:
– E-Cu

Surface finish:
– Nickel-plated

Approvals:
– UL

For system PLS 800

Connection type	Packs of	Model No.
Single connection	3 pc(s).	**3504.000**
Baying connection from enclosure to enclosure	3 pc(s).	**3505.000**

For system PLS 1600

Connection type	Packs of	Model No.
Single connection	3 pc(s).	**3514.000**
Baying connection from enclosure to enclosure	3 pc(s).	**3515.000**

PLS expansion connectors

For thermal and mechanical compensation when connecting PLS special busbars from enclosure to enclosure.

Material:
– E-Cu

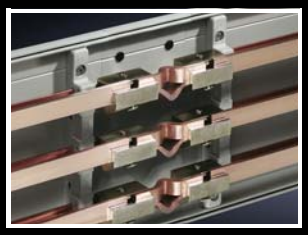
Note:
– At a temperature increase of 30 K, there is an expansion in the length of the busbars by approximately 0.5 mm/m. For this reason, it is advisable to use an expanding connection for thermal compensation in busbar systems with busbar sections > 3600 mm.

Approvals:
– UR

For system	Packs of	Model No.
PLS 800	3 pc(s).	**9320.060**
PLS 1600	3 pc(s).	**9320.070**

Also required:
– PLS busbar connectors, see page 344

Assembly instruction:
– Two busbar connectors are needed to fit one expansion connector.



The Copper Workstation CW 120-M is ideal for bending, punching and cutting busbars, from page 639

Laminated copper bars

Laminated copper bars

Material:
- Cu lamina High-purity electrolyte copper F20
- Insulation: Highly resistant vinyl compound, elongation 370%, temperature: -30 °C...+105 °C, fire protection corresponding to UL-94 V0, dielectric strength: 20 kV/mm

Note:
- Construction = Number of lamina x lamina width x lamina thickness
- May be cut individually to required length
- The conductor temperature of the laminated copper bar is derived by adding the ambient temperature and the temperature increase together. Example: 3565.005 carrying 180 A, i.e. the temperature increases by 30 K. At an ambient temperature of 35 °C, this produces a resultant conductor temperature of 35 °C + 30 K = 65 °C.

Accessories:
- Universal support, see page 346

Construction mm	Length mm	Rated current (at 70 K) A	Rated current (at 50 K) A	Rated current (at 30 K) A	Packs of	Model No.
6 x 9 x 0.8	2000	285	240	180	1 pc(s).	**3565.005**
6 x 15.5 x 0.8	2000	415	350	265	1 pc(s).	**3568.005**
10 x 15.5 x 0.8	2000	575	480	365	1 pc(s).	**3569.005**
5 x 20 x 1	2000	525	435	330	1 pc(s).	**3570.005**
5 x 24 x 1	2000	605	510	385	1 pc(s).	**3571.005**
10 x 24 x 1	2000	920	770	585	1 pc(s).	**3572.005**
5 x 32 x 1	2000	770	645	485	1 pc(s).	**3573.005**
10 x 32 x 1	2000	1155	965	730	1 pc(s).	**3574.005**
5 x 40 x 1	2000	930	780	590	1 pc(s).	**3575.005**
10 x 40 x 1	2000	1370	1145	865	1 pc(s).	**3576.005**
5 x 50 x 1	2000	1125	940	710	1 pc(s).	**3577.005**
10 x 50 x 1	2000	1635	1365	1030	1 pc(s).	**3578.005**
10 x 63 x 1	2000	1950	1610	1230	1 pc(s).	**3579.005**

Universal support

for laminated copper bars
For the attachment of laminated copper bars from 5 x 20 x 1 to 10 x 63 x 1 mm.

Material:
- Fibreglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Supply includes:
- Assembly parts

Packs of	Model No.
3 pc(s).	**3079.000**

Accessories:
- Punched rail 23 x 23 mm, see page 994

Universal support

for laminated copper bars
For the attachment of multi-stacked laminated copper bars from 5 x 40 x 1 to 10 x 100 x 1 mm.

Material:
- Fibreglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Supply includes:
- Assembly parts

Packs of	Model No.
1 pc(s).	**3079.010**

Note:
- 1 universal support corresponding to the supply scope shown in the photograph

Accessories:
- C rails 30/15, see page 996

Base tray

for RiLine busbar systems
For rear contact hazard protection of the busbar assembly.

Material:
– Thermally modified hard PVC.
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– May be cut individually to required length

Approvals:
– UL

For system Flat copper busbars, 3-pole

Length mm	Packs of	Model No.
500	2 pc(s).	**9340.100**
700	2 pc(s).	**9340.110**
900	2 pc(s).	**9340.120**
1100	2 pc(s).	**9340.130**
2400	1 pc(s).	**9340.170**

For system Flat copper busbars, 4-pole

Length mm	Packs of	Model No.
1100	2 pc(s).	**9340.134**

For system PLS 800, 3-pole

Length mm	Packs of	Model No.
500	2 pc(s).	**9341.100**
700	2 pc(s).	**9341.110**
900	2 pc(s).	**9341.120**
1100	2 pc(s).	**9341.130**
2400	1 pc(s).	**9341.170**

For system PLS 1600, 3-pole

Length mm	Packs of	Model No.
500	2 pc(s).	**9342.100**
700	2 pc(s).	**9342.110**
900	2 pc(s).	**9342.120**
1100	2 pc(s).	**9342.130**
2400	1 pc(s).	**9342.170**

For system PLS 1600, 4-pole

Length mm	Packs of	Model No.
1100	2 pc(s).	**9342.134**

Base tray infill

for RiLine busbar systems
For rear contact hazard protection when connecting the busbars from enclosure to enclosure.

Material:
– Thermally modified hard PVC.
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Approvals:
– UL

For system	Length mm	Packs of	Model No.
Flat copper busbars, 3-pole	100	2 pc(s).	**9340.140**
PLS 800, 3-pole	100	2 pc(s).	**9341.140**
PLS 1600, 3-pole	100	2 pc(s).	**9342.140**

Contact hazard protection

Cover section

for RiLine busbar systems
For clip-on mounting onto the base tray.

Material:
– Thermally modified hard PVC.
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– If the cover section is loaded from the front, the support panel is needed for stability
– May be cut individually to required length

Approvals:
– UL

For system	Length mm	Packs of	Model No.
Flat copper busbars, 3-pole PLS 800, 3-pole PLS 1600, 3-pole	700	2 pc(s).	**9340.200**
Flat copper busbars, 3-pole PLS 800, 3-pole PLS 1600, 3-pole	1100	2 pc(s).	**9340.210**
Flat copper busbars, 4-pole PLS 1600, 4-pole	1100	2 pc(s).	**9340.214**

Also required:
– Base tray, see page 347

Accessories:
– Support panel, see page 348

Support panel

for cover section
To prevent side access to the cover section. The support panel also provides additional stability. Recommended mounting distance ≤ 500 mm.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Approvals:
– UL

For system	Packs of	Model No.
3-pole	5 pc(s).	**9340.220**
4-pole	5 pc(s).	**9340.224**

Cross member

for RiLine busbar connections
To comply with the clearances required for "feeder circuits" under UL 508. For flat bar systems with 60 mm bar centre distance and PLS 800/1600.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– 2 cross members are required for one busbar connection

Approvals:
– UL

For system	Length mm	Packs of	Model No.
3-pole	160	2 pc(s).	**9340.230**

Also required:
– Support panel, see page 348

Conductor connection clamps

Push-in

Applications:
- For use as busbar pick-off of L, N or PE conductors in switchgear and controlgear, and as a conductor connection clamp in meter boxes.
- For mounting on E-Cu or CUPONAL busbars

Benefits:
- Maintenance-free
- Time-saving top-mounting
- Terminal box with integral label panels
- Universal conductor connection

Functions:
- Fully insulated terminal for tool-free conductor connection
- Conductor is released by the integral release pin

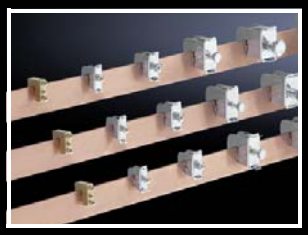
Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7042

Basis of test:
- IEC 60 999-1
- IEC 60 947-7-1/-2

For bar thickness mm	Connection of round conductors, single-wire mm^2	Connection of round conductors, multi-wire mm^2	Connection of round conductors, fine wire without wire end ferrule mm^2	Connection of round conductors, fine wire with wire end ferrule mm^2	Packs of	Model No.
5	0.5 - 6	0.5 - 4	0.5 - 4	0.5 - 4	10 pc(s).	**3450.505**
5	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 16	10 pc(s).	**3451.505**
10	0.5 - 6	0.5 - 4	0.5 - 4	0.5 - 4	10 pc(s).	**3455.505**
10	1.5 - 16	1.5 - 16	1.5 - 16	1.5 - 16	10 pc(s).	**3456.505**

Conductor connection clamps



For connecting round conductors and laminated copper bars.

Note:
- Wire end ferrules should be used with fine wire conductors

Approvals:
- UR

Accessories:
- Laminated copper bar, see page 346

For bar thickness mm	Connection of round conductors mm^2	Clamping area for laminated copper bars (W x H) mm	Material	Surface finish	Packs of	Model No.
5	1 - 4	–	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3450.500**
5	2.5 - 16	8 x 8	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3451.500**
5	16 - 50	10.5 x 11	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3452.500**
5	35 - 70	16.5 x 15	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3453.500**
5	70 - 185	22.5 x 20	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3454.500**
10	1 - 4	–	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3455.500**
10	2.5 - 16	8 x 8	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3456.500**
10	16 - 50	10.5 x 11	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3457.500**
10	35 - 70	16.5 x 15	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3458.500**
10	70 - 185	22.5 x 20	Sheet steel	Zinc-plated, passivated	15 pc(s).	**3459.500**
3 - 5	1 - 4	–	Brass	–	15 pc(s).	**3550.000**
6 - 10	1 - 4	–	Brass	–	15 pc(s).	**3555.000**

Connection systems

Plate clamps

For connecting laminated copper bars; no drilling required.

Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

For busbar mm	Clamping area for laminated copper bars (W x H) mm	Packs of	**Model No.**
12 x 5 - 30 x 10	34 x 10	3 pc(s).	**3554.000**
40 x 10	34 x 10	3 pc(s).	**3559.000**
50 x 10	34 x 10	3 pc(s).	**3560.000**
50 x 10	54 x 10	3 pc(s).	**3562.000**
60 x 10	34 x 10	3 pc(s).	**3561.000**
60 x 10	54 x 10	3 pc(s).	**3563.000**
80 x 10	65 x 10	3 pc(s).	**3460.500**

Accessories:

– Laminated copper bar, see page 346

System cover

For conductor connection clamps and plate clamps.

Material:
– ABS
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Note:
– For 3-pole systems with 60/100 mm bar centre distance
– Only suitable for use with systems without a base tray
– For systems with a base tray, the system covers must be mechanically shortened

Approvals:
– UR

Width mm	Depth mm	Height when mounting on 60 mm busbar systems mm	Height when mounting on 100 mm busbar systems mm	Packs of	**Model No.**
50	80	230	325	4 pc(s).	**3086.000**
100	80	230	325	4 pc(s).	**3087.000**
100	110	230	325	4 pc(s).	**3090.000**
200	80	230	325	4 pc(s).	**3088.000**
200	110	230	325	4 pc(s).	**3091.000**

Connection block

Suitable for busbars 12 x 5 to 30 x 10 mm and PLS 800/1600.

Material:
– Punched section: Polyamide
– Cover: ABS
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– 3 terminals including cover

Note:
– When using the terminal on 2-pole busbar systems (SV 9340.040), the terminal must be rotated through 180° for connection to the PE busbar

Approvals:
– UL

Accessories:

– Laminated copper bar, see page 346

Rated current max. A	800	1600
Rated operating voltage V, ~	690, 1~	690, 1~
Rated operating voltage (L1 + L2) V	1000 (DC)	1000 (DC)
Rated operating voltage (L1 + L3) V	1500 (DC)	1500 (DC)
Cable outlet	Top/bottom	Top/bottom
Connection of round conductors, fine wire with wire end ferrule mm^2	95 - 185	–
Connection of round conductors, multi-wire mm^2	95 - 300	–
Clamping area for laminated copper bars with 5 mm bar thickness (W x H) mm	33 x 26	65 x 27
Clamping area for laminated copper bars with 10 mm bar thickness (W x H) mm	33 x 22	65 x 22
Width mm	50	85
Height mm	88	88
Packs of	3 pc(s).	3 pc(s).
Model No.	**9342.311**	**9342.321**

for OM adaptors/supports/component adaptors

Support rail 35 x 7.5 mm

for Mini-PLS component adaptors

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Width mm	Packs of	Model No.
45	10 pc(s).	**9320.150**
54	10 pc(s).	**3548.000**

Support rail 35 x 7.5 mm

for OM adaptors/supports

Applications:
– For assembly on 55 mm wide OM adaptors/ supports with 10 mm wide insert strips mounted on the right and left
– Arrangement of the mounting hole for central configuration on 55 mm wide adaptor section or support frame

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Width mm	Packs of	Model No.
72	5 pc(s).	**9342.980**

Support rail 35 x 10 mm

for OM adaptors/supports
For attaching to the adaptor section and support frame.

Material:
– Polyamide

Colour:
– RAL 9005

Supply includes:
– Assembly screws

Note:
– UL approval in conjunction with OM adaptors/ supports
– Support rail TS xxD-V only suitable for non-pitch pattern-dependent mounting on support frame

Width mm	With anti-slip guard for motor circuit-breaker	Design	Packs of	Model No.
45	■	TS 45C	5 pc(s).	**9342.850**
45	–	TS 45D	5 pc(s).	**9342.860**
45	–	TS 45D-V	5 pc(s).	**9342.870**
55	■	TS 55C	5 pc(s).	**9342.920**
55	–	TS 55D	5 pc(s).	**9342.930**
55	–	TS 55D-V	5 pc(s).	**9342.940**

Support rail 35 x 15 mm

for OM adaptors/supports
For attaching to the adaptor section.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Width mm	Packs of	Model No.
45	5 pc(s).	**9342.880**
55	5 pc(s).	**9342.950**

Support rail 35 x 15 mm

for Mini-PLS/circuit-breaker component adaptors

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws and side anti-slip guard

Approvals:
– UR

Width mm	To fit Model No.	Packs of	Model No.
72	9342.400/ 9342.410/ 9629.000	5 pc(s).	**9320.120**

Insert strip

for Mini-PLS component adaptors
To extend the construction width.

Material:
– ABS

Colour:
– RAL 7035

Approvals:
– UR

Width mm	Packs of	Model No.
9	2 pc(s).	**9623.000**

Insert strip

for OM adaptors/supports
To extend the construction width in a 10 mm pitch pattern. May be bayed as often as required on both sides. With integral cable duct.

Material:
– Polyamide

Colour:
– RAL 7035

Supply includes:
– 6 connection pins

Approvals:
– UL

Width mm	Packs of	Model No.
10	2 pc(s).	**9340.290**

Insert strip

for circuit-breaker component adaptors
To extend the construction width from 140 mm to 190 mm.

Material:
– ABS

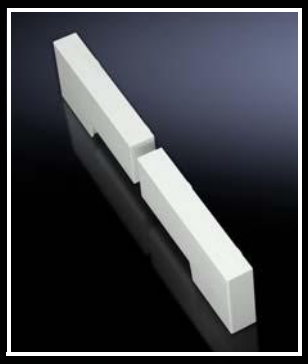
Colour:
– RAL 7035

Supply includes:
– Connection parts for power circuit-breaker, brand Siemens VL630 (3-pole)

Note:
– 4 pieces are needed to widen a component adaptor

Approvals:
– UL

Width mm	To fit Model No.	Packs of	Model No.
25	9345.700/ 9345.710/ 9345.720/ 9345.730	4 pc(s).	**9342.720**



for OM adaptors/supports/component adaptors

Connection pin

for OM adaptors/supports
For any required mechanical connection of OM adaptors/supports and insert strip 9340.290.

Material:
– Polyamide

Colour:
– RAL 5010

Approvals:
– UL

Packs of	Model No.
20 pc(s).	**9340.280**

PinBlock

for support frames
For reliable attachment and positioning of the contactor on motor starter combinations. Simple clip-on mounting onto the support frame. Individual vertical positioning is achieved by relocating the PinBlock.

Material:
– Polyamide

Colour:
– RAL 9005

Note:
– UL approval in conjunction with OM adaptors/supports

For support frame width mm	Packs of	Model No.
45	5 pc(s).	**9342.800**
55	5 pc(s).	**9342.810**

Accessories:
– PinBlock Plus, see page 354

PinBlock Plus

for starters with increased contactor attachment
Mounted by simply clipping onto the PinBlock 9342.800/.810.

Material:
– Polyamide

Colour:
– RAL 9005

Note:
– UL approval in conjunction with OM adaptors/supports

Packs of	Model No.
5 pc(s).	**9342.820**

Cable set

for OM adaptors with spring terminal block
Pre-assembled connection cables for individual connection of switchgear, top-mounted on OM adaptors with tension spring clamps.

Material:
– PVC insulation
– Temperature resistant to 105 °C
– Wire ends with ultrasonic wire-end compression at both ends

Note:
– AWG = American Wire Gauge

Cross-section	Length mm	Packs of	Model No.
AWG 14 = 2.08 mm^2 ≙ 2,5 mm^2	140	15 pc(s).	**9340.850**
AWG 12 = 3.31 mm^2 ≙ 4 mm^2	140	15 pc(s).	**9340.860**
AWG 10 = 5.26 mm^2 ≙ 6 mm^2	140	15 pc(s).	**9340.870**
AWG 8 = 8.37 mm^2 ≙ 10 mm^2	140	6 pc(s).	**9340.880**
AWG 6 = 13.3 mm^2 ≙ 16 mm^2	140	6 pc(s).	**9340.890**

for OM adaptors/supports/component adaptors

Twin cord

for OM adaptors with spring terminal block 2.5 – 16 mm²
Pre-assembled connection cables for individual connection of up to two switchgear units per adaptor.

Material:
– PVC insulation
– Temperature resistant to 105 °C
– Wire ends with ultrasonic wire-end compression at both ends

Note:
– AWG = American Wire Gauge

Cross-section	Length mm	Packs of	Model No.
AWG 10 = 5.26 mm² ≙ 6 mm²	140 250	6 pc(s).	**9340.820**
AWG 8 = 8.37 mm² ≙ 10 mm²	140 250	6 pc(s).	**9340.830**

Sliding block

for circuit-breaker component adaptors
For additional locking of circuit-breakers with more than two attachment points.

Colour:
– RAL 7035

Note:
– UL approval in conjunction with circuit-breaker component adaptor

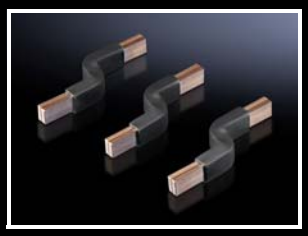
To fit Model No.	With threaded insert	Packs of	Model No.
9342.500/9342.510/ 9342.504/9342.514/ 9342.540/9342.550	M3 M4	6 pc(s).	**9342.560**
9345.600/9345.610/ 9345.604/9345.614	M4 M5	6 pc(s).	**9342.640**

Connection bracket

for circuit-breaker component adaptors
Pre-assembled, laminated flat copper for connecting standard, commercially available moulded case circuit-breakers (MCCB).

Material:
– Electrolytic copper F20

Note:
– Universal application for switchgear with a dimensional difference between the mounting level and the upper edge of the contact level of 20 ± 5 mm.



For switchgear make (model)	To fit Model No.	Number of lamina	Membrane width mm	Membrane thickness mm	Packs of	Model No.
ABB (T1, T1 UL, T2, T2 UL) Eaton (NZM1, NZM1 UL, BZM B1) Schneider Electric (NSC100, NSE75, NSE100)	9342.500/ 9342.510/ 9342.540/ 9342.550	6	9	0.8	3 pc(s).	**9342.570**

for bus-mounting fuse bases

Contact hazard protection cover plate

for bus-mounting fuse bases
The cover ensures contact hazard protection from the front, top and below. All-round contact hazard protection (up to IP 2X) in conjunction with the side cover 3093.010/.020.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Fuse inserts	Packs of	Model No.
3418.010	D 02-E 18	10 pc(s).	**3418.020**
3427.010	D II-E 27	10 pc(s).	**3427.020**
3433.010	D III-E 33	10 pc(s).	**3433.020**

Cover, side

for bus-mounting fuse bases
For clip-on mounting onto the cover plate, contact hazard protection.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Fuse inserts	Packs of	Model No.
3418.010	D 02-E 18	10 pc(s).	**3093.010**
3427.010/ 3433.010	D II-E 27 D III-E 33	10 pc(s).	**3093.020**

Connection space extender

for bus-mounting fuse bases
Contact hazard protection cover plate including cable duct for side extension of the connection space by 14 mm.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

To fit Model No.	Fuse inserts	Packs of	Model No.
3418.010	D 02-E 18	10 pc(s).	**3418.030**
3427.010	D II-E 27	10 pc(s).	**3427.030**
3433.010	D III-E 33	10 pc(s).	**3433.030**

Wiring duct

for D-Switch bus-mounting fuse base
For safe, shock-hazard-protected routing of connection cables. Also suitable for use as a spacer support.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Width mm	To fit Model No.	Packs of	Model No.
13.5	9340.950	10 pc(s).	**9340.905**

Box terminal

for NH fuse-switch disconnectors
For direct connection of round and sector-shaped conductors and laminated copper bars. Suitable for NH fuse-switch disconnectors with screw terminal.

Material:
– Cast brass

Surface finish:
– Nickel-plated

For size	Connection of round conductors mm^2	Connection of sector-shaped conductors mm^2	Clamping area for laminated copper bars (W x H) mm	Packs of	**Model No.**
1	35 - 150	50 - 150	20 x 14	3 pc(s).	**9344.610**
2/3	95 - 300	120 - 300	32 x 20	3 pc(s).	**9344.620**

Arcing chamber

for NH fuse-switch disconnectors
To increase switching capacity (utilisation category).

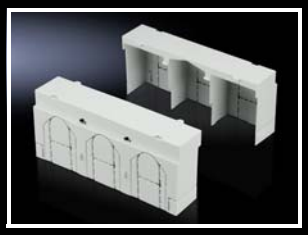
For size	Packs of	**Model No.**
1 - 3	3 pc(s).	**9344.680**

Connection space cover

for NH fuse-switch disconnectors
For extending the contact hazard protection cover, e.g. when using ring terminals with a long collar. Bayable as required at the top and bottom.

Material:
– Polyamide

Colour:
– RAL 7035



For size	Packs of	**Model No.**
00	2 pc(s).	**9344.520**
1	2 pc(s).	**9344.530**
2	2 pc(s).	**9344.540**
3	2 pc(s).	**9344.550**

Connection space cover

for NH slimline fuse-switch disconnectors
Extended version for the use of ring terminals with a long collar.

Material:
– Polycarbonate

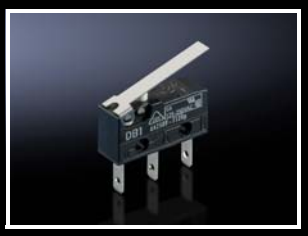
For size	Packs of	**Model No.**
00	1 pc(s).	**9346.460**

for NH fuse elements

Micro-switch

for NH fuse-switch disconnectors/NH slimline fuse-switch disconnectors (185 mm)
To indicate the switch position of the NH unit (cover).

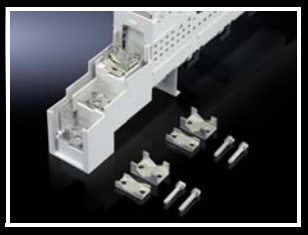
For size	Rated operating current max. A	Rated operating voltage V	Product-specific scope of supply	Packs of	**Model No.**
NH fuse-switch disconnectors, size 000/00 NH slimline fuse-switch disconnector, size 00 - 3 (185 mm)	5	250	–	5 pc(s).	**3071.000**
NH fuse-switch disconnectors, size 1 - 3	5	250	Including plastic lug for attaching the micro-switch to the disconnector chassis	2 pc(s).	**9344.510**



Micro-switch

for NH slimline fuse-switch disconnectors
To indicate the switch position of the NH unit (cover).

For size	Rated operating current max. A	Rated operating voltage V	Packs of	**Model No.**
00	5	250	5 pc(s).	**9346.400**



Clamp-type terminal connection

for NH slimline fuse-switch disconnectors
For the connection of round conductors. Suitable for NH slimline fuse-switch disconnectors with screw terminal.

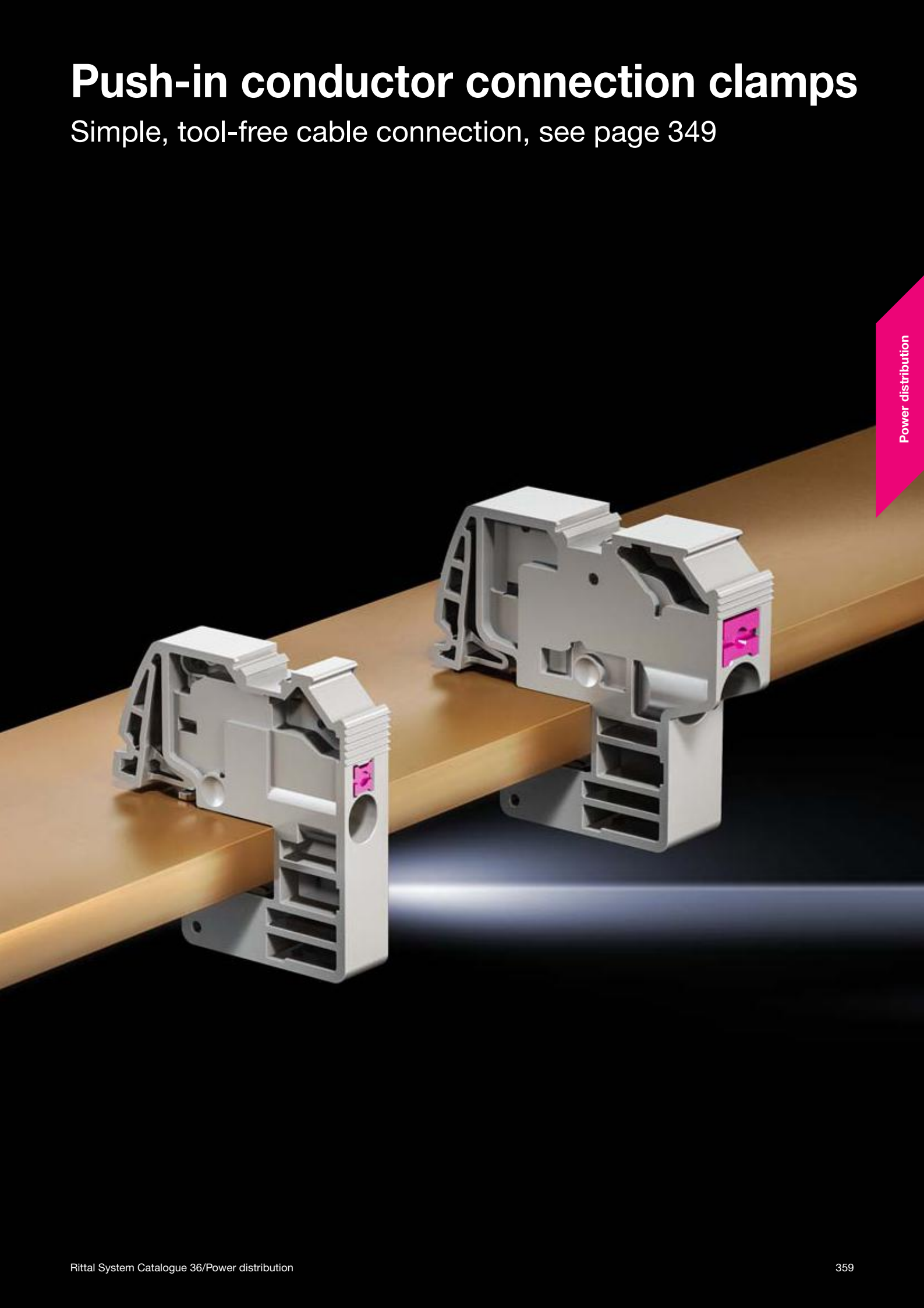
Material:
– Cast brass

Surface finish:
– Nickel-plated

For size	Connection of round conductors mm^2	Packs of	**Model No.**
00	1.5 - 95	3 pc(s).	**3592.010**

Push-in conductor connection clamps

Simple, tool-free cable connection, see page 349



Rittal – The System.

Faster – better – everywhere.

VX25 Ri4Power

Busbar systems

Ri4Power busbar system (185 mm) 368
Busbar systems (100/185/150 mm) 388
Flat-PLS 394
Maxi-PLS 401

Connection system

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Cover systems

Form 1 408
Form 2b 409

Compartment configuration

Form 1-4 410

Fuse-switch disconnector section

Busbar end supports 415
Cover 415
Ri4Power accessories 417
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Baying enclosure system VX25

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Fuse-switch-disconnector enclosures 134
Distribution enclosures 135
ISV installation kits 420
ISV installation modules 421
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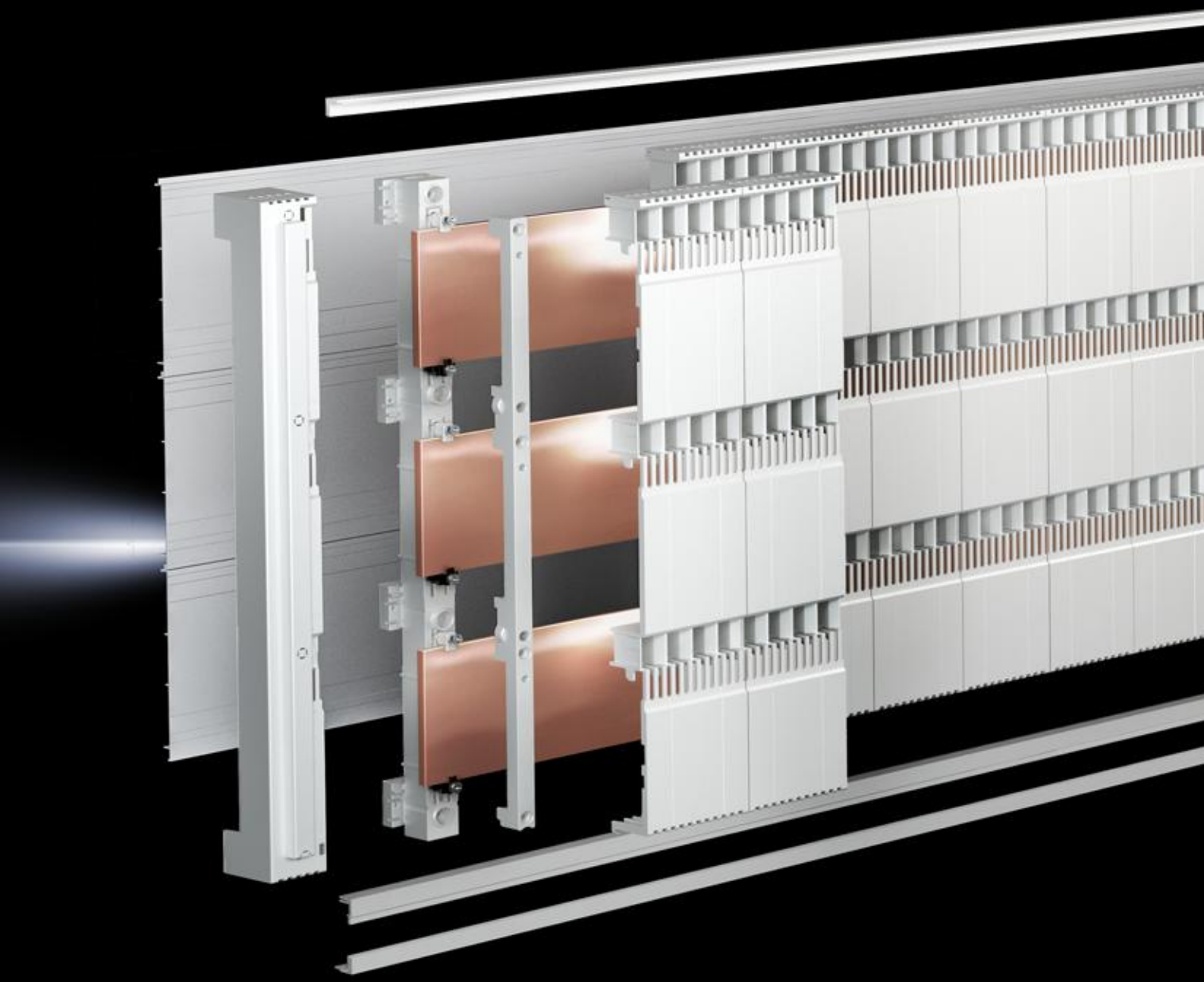
Installation accessories for modular front design 926

VX25 Ri4Power system 185 mm – System assembly without drilling

The busbar system is quickly and conveniently installed in the enclosure in just three steps:

- Position the punched section with mounting flange and system attachment in the enclosure
- Secure the busbar assembly
- Clip the cover system into position

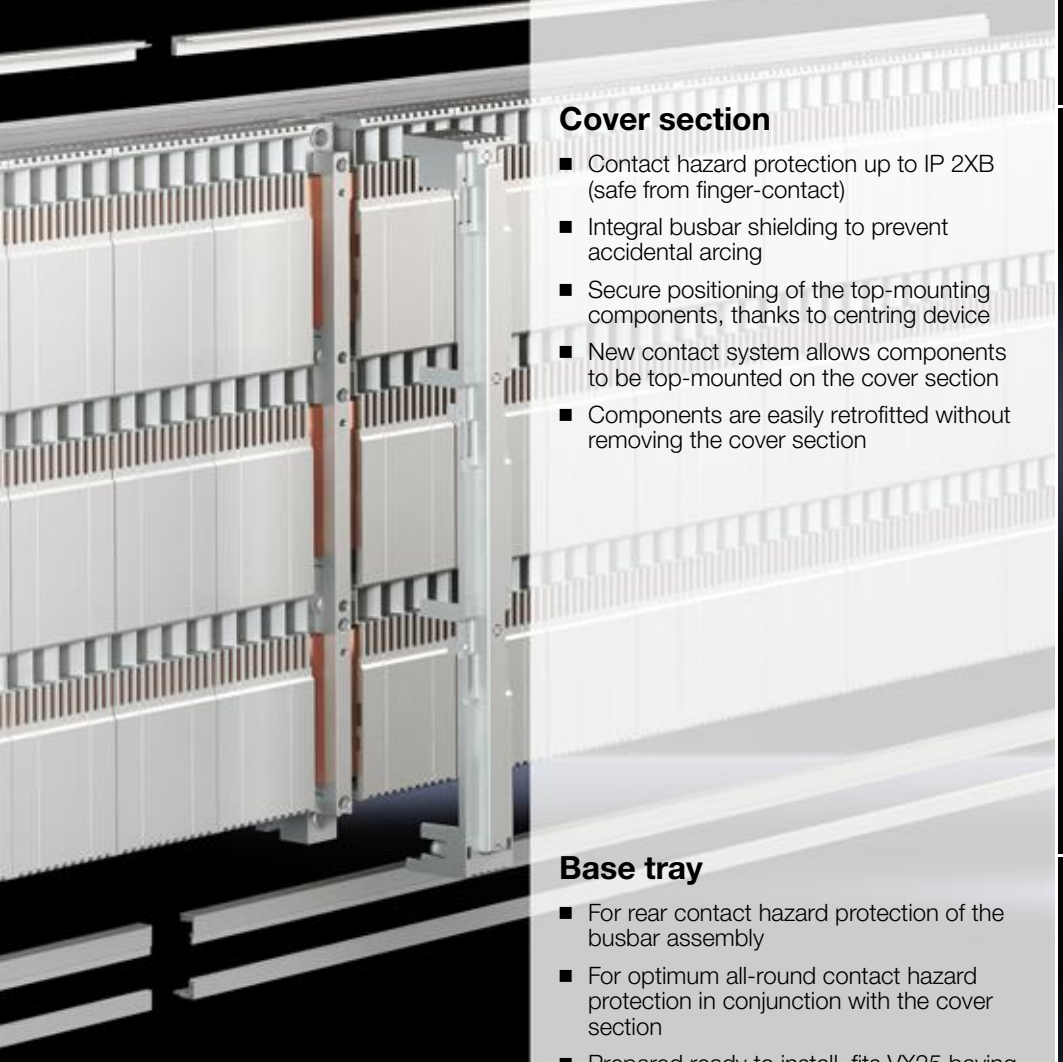


Busbar support

- For busbar dimensions ranging from 40 x 10 to 120 x 10 mm
- The support may be top-mounted with components using the pitch pattern of the cover system
- Rated short-time withstand current I_{cw} up to 50 kA
- Rated busbar currents of up to 2100 A
- Mounting via system attachment in the VX25 baying enclosure system, no drilling required

Cover section

- Contact hazard protection up to IP 2XB (safe from finger-contact)
- Integral busbar shielding to prevent accidental arcing
- Secure positioning of the top-mounting components, thanks to centring device
- New contact system allows components to be top-mounted on the cover section
- Components are easily retrofitted without removing the cover section



Base tray

- For rear contact hazard protection of the busbar assembly
- For optimum all-round contact hazard protection in conjunction with the cover section
- Prepared ready to install, fits VX25 baying enclosure system widths from 600 mm to 1200 mm

The perfect-fit adaptor system

Connection and component adaptors for tested, safe connection at high currents

- For air circuit-breakers up to 630 A and 1600 A
- Direction connection of various conductor types
- No-drill connection system to the busbar

Busbar connection adaptors and connection blocks

- Compact, fast connection of cables and lines
- Suitable for various types of conductor
- With standardised contact hazard protection cover plates

Component adaptors for compact circuit-breakers

- Two sizes up to 630 A and 1600 A
- Variants for clamping or screw attachment
- Make contact without drilling
- Ideal for incoming and outgoing circuits

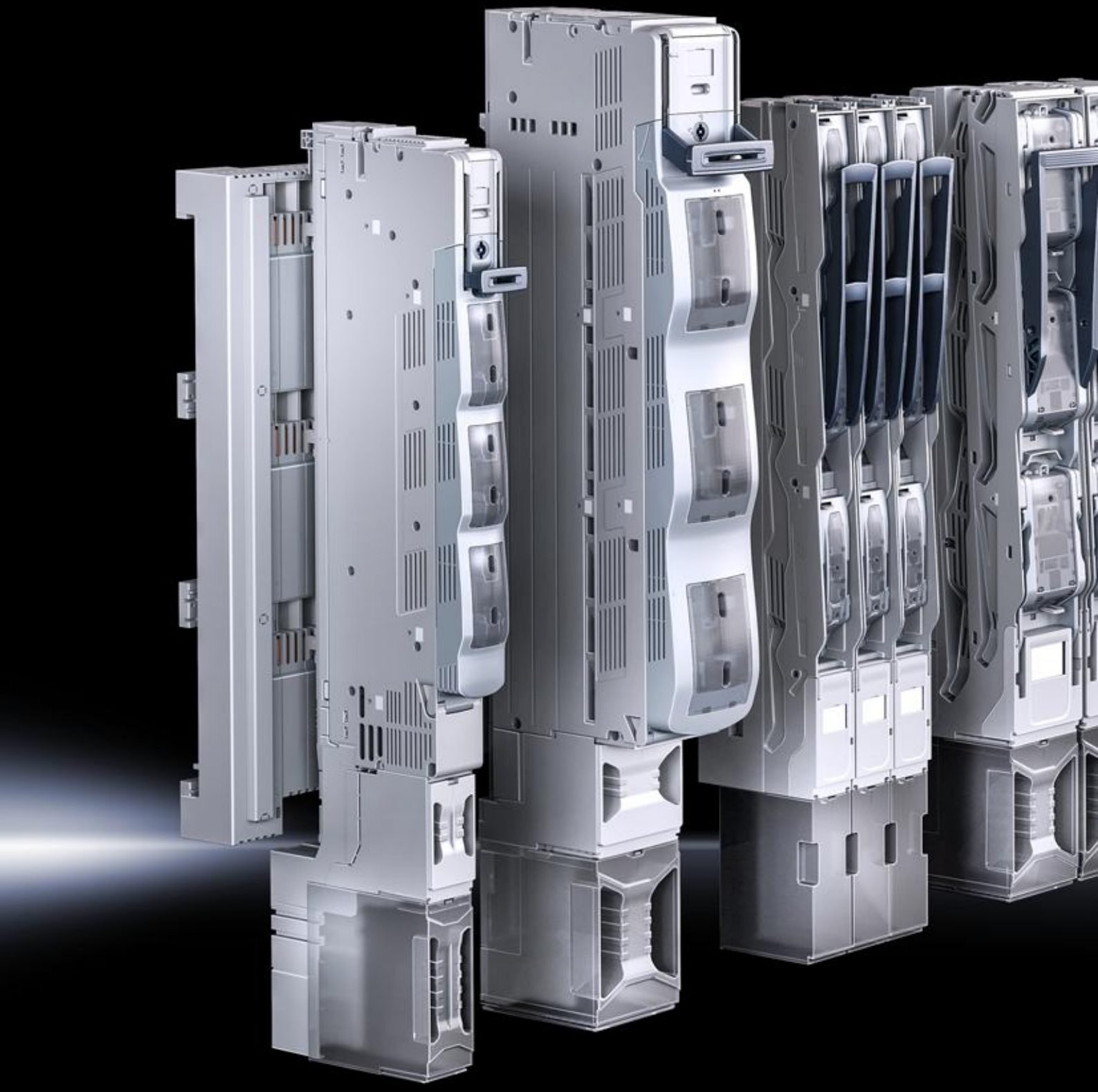
Connector kit and transformer

- Form-fit, prepared for switch brands ABB, Eaton, Schneider Electric, Siemens
- Preassembled connector kits from the adaptor to the circuit-breaker
- Optional integration of a current transformer
- Complete contact hazard protection in the inlet and outlet zones

Fuse elements to suit all situations

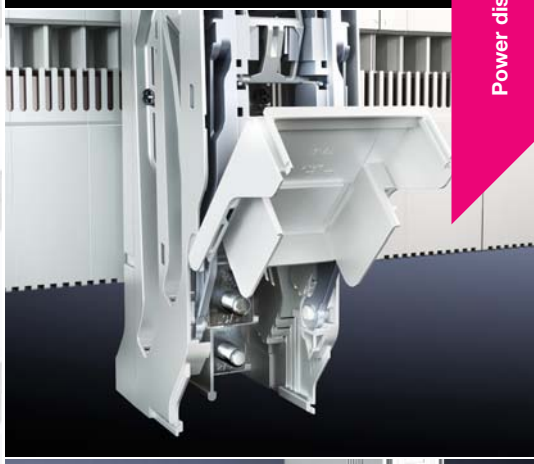
The new system of NH slimline fuse-switch disconnectors is based on separate air routing for heat dissipation and targeted removal of switching gases, while the NH slimline switch-disconnectors ensure user-independent disconnection and switching for enhanced safety.

- Simple device assembly
- Safe operation
- Optimum contact hazard protection



NH slimline fuse-switch disconnectors, sizes 00 to 3

- Single-pole and 3-pole switchable variants
- Symmetrical layout for cable outlet at the top and bottom
- Optional integration of current transformers
- Versions with and without fuse monitoring
- Self-closing voltage testing holes
- Prepared for multiple lead seals
- Hinged terminal cover
- Cascadable connection space extension
- Simple conversion of the bolt or screw connections
- Contact hazard-proof fuse contacts with the top section dismantled
- Optional micro-switch monitoring of the cover switch position



NH slimline switch-disconnectors, size 00 to 3

- Disconnect and switch with one device
- Integral, user-independent quick-break contact ensures safe operation
- User-friendly cable connection from above or below
- Versions with and without fuse monitoring
- Integral switch position display
- No-drill contacting with clamping screw attachment
- Double-break allows de-energised fuse replacement

Busbar support (185 mm)

Connection adaptors Page 370 **Connection block** Page 371 **Component adaptors** Page 372 **NH slimline switch-disconnectors** Page 374

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Supply includes:
- Including assembly components for contact hazard protection cover (base tray)

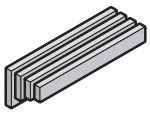
Bar centre distance mm	Packs of	185	Page
Rated operating voltage V, ~		1000, 3~ 1500 (DC)	
Number of poles		3-pole	
For busbar mm		40 x 10 60 x 10 80 x 10 100 x 10 120 x 10	
Model No.	2 pc(s).	**9677.500**	
Accessories			
Busbars E-Cu		see page	369
Contact hazard protection cover plate		see page	381
End cover	2 pc(s).	9677.600	380

Busbar supports

Note:
Required quantity when using in the enclosure width
– 600/800 mm: 2 pc(s).
– 1000/1200 mm: 3 pc(s).

Number of poles	Packs of	3-pole	Page
Bar centre distance mm		185	
Model No.	2 pc(s).	9677.500	368

Busbars E-Cu, length: 2400 mm/bar

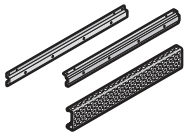


Dimensions mm	Packs of	Model No.	Page
40 x 10	3 pc(s).	3587.000	342
60 x 10	2 pc(s).	3589.005	
80 x 10	1 pc(s).	3590.005	
100 x 10	1 pc(s).	3590.015	
120 x 10	1 pc(s).	3590.020	

Accessories

Busbar connector		see page	380

System attachment



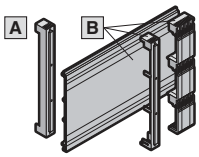
For enclosure width mm	Packs of	Model No.	Page
600	1 pc(s).	9677.511	380
800	1 pc(s).	9677.521	
1000	1 pc(s).	9677.531	
1200	1 pc(s).	9677.541	

Accessories

Punched section with mounting flange, 23 x 64 mm

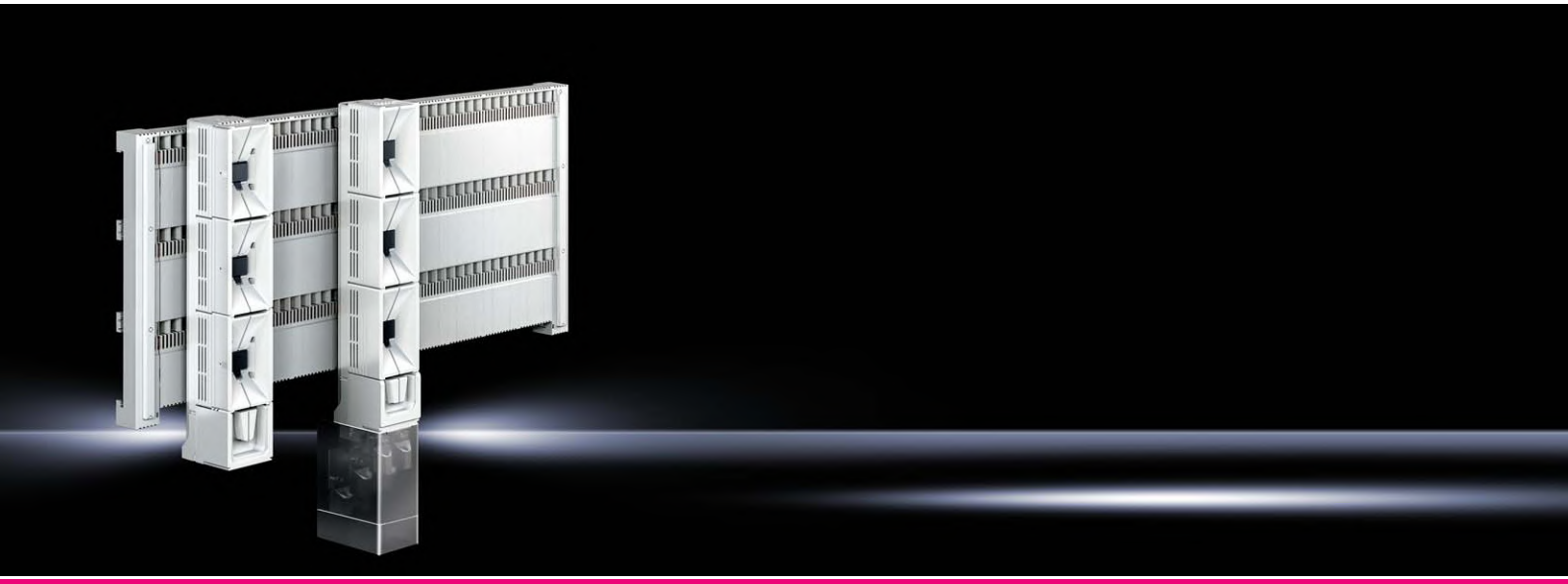
For enclosure depth mm	Packs of	Model No.	Page
500	4 pc(s).	8617.120	991
600	4 pc(s).	8617.130	
800	4 pc(s).	8617.140	

Contact hazard protection



Components	For enclosure width mm	Packs of	Model No.	Page
A End covers l/r	–	2 pc(s).	9677.600	380
B Cover plate, contact hazard protection (cover section, base tray, trim section)	600	1 pc(s).	9677.550	381
	800	1 pc(s).	9677.560	
	1000	1 pc(s).	9677.570	
	1200	1 pc(s).	9677.580	

Connection adaptors



Busbar system Page 368 **Connection block** Page 371 **Component adaptors** Page 372 **NH slimline switch-disconnectors** Page 374

Material:
- Chassis: Fibreglass-reinforced polyester
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- When using components on busbars with contact hazard protection cover, the contact terminal must be used

Rated current max. 800 – 1400 A

Rated current max. A	Packs of	800	1400	Page
Rated operating voltage V, ~		690, 3~	690, 3~	
Number of poles		3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	
Type of connection		Screw M12	Screw M12	
Connection of round conductors mm^2		6 - 240	6 - 300	
Width mm		100	100	
Height mm		665	960	
For bar systems with centre-to-centre spacing mm		185	185	
For bar thickness mm		10	10	
Model No.	1 pc(s).	**9677.900**	**9677.905**	
Product-specific scope of supply				
Contact hazard protection cover plate		–	■	
Accessories				
Contact terminal	3 pc(s).	9677.460	9677.460	383
Busbar terminal	3 pc(s).	9677.480	9677.480	384

Busbar system Page 368 **Connection adaptors** Page 370 **Component adaptors** Page 372 **NH slimline switch-disconnectors** Page 374

For connecting cables and laminated copper bars.

Material:
– Sheet steel, zinc-plated
– E-Cu, tin-plated

Rated current max. 1000 – 1600 A

Rated current max. A	Packs of	1000	1600	1600	Page
Rated operating voltage V, ~		690, 1~	690, 1~	690, 1~	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Box terminal	–	Ring terminal M12	
Number of connection cables max.		2	–	4	
Connection of round conductors mm^2		185 - 300	–	240	
Clamping area for laminated copper bars (W x H) mm		–	80 x 20	–	
Width mm		98	98	98	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.915**	**9677.910**	**9677.920**	
Also required					
Contact hazard protection cover plate	1 pc(s).	9677.925	9677.925	9677.925	382

Component adaptors

Busbar system Page 368 **Connection adaptors** Page 370 **Connection block** Page 371 **NH slimline switch-disconnectors** Page 374

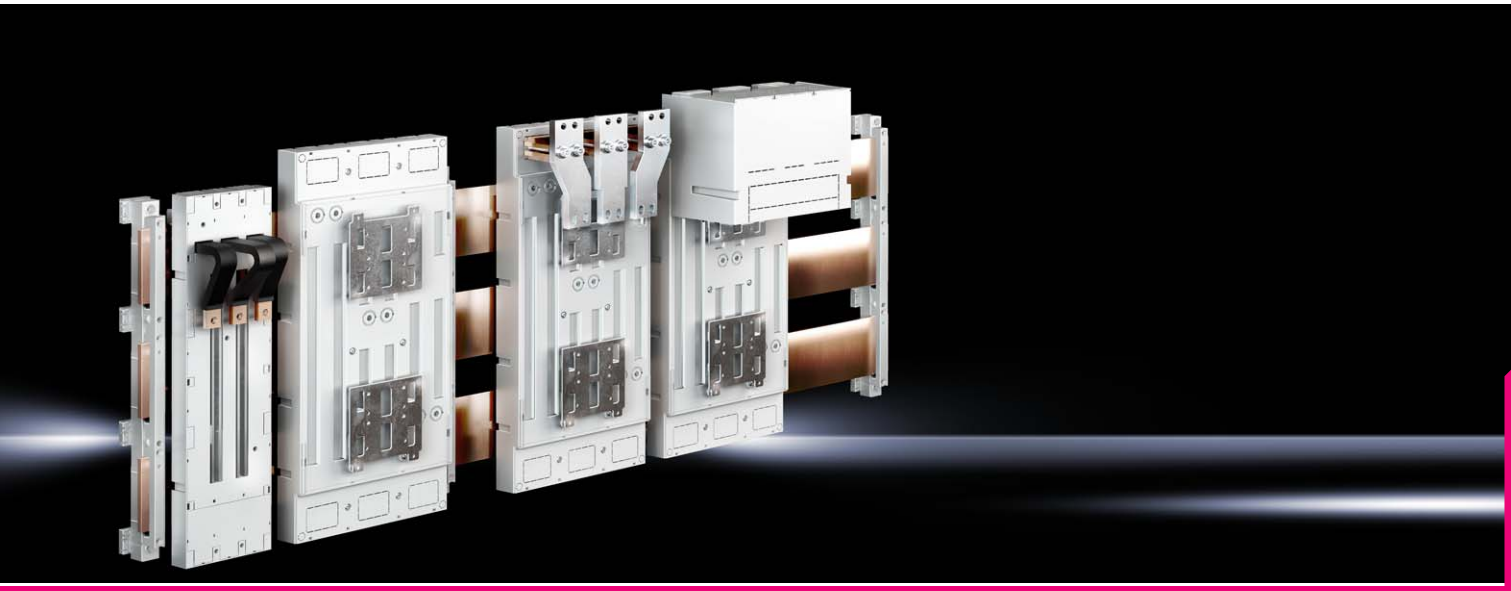
Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- Suitable for the use of switch-gear with front screw terminal
- For mounting on busbar systems with or without cover section

Rated current max. 630 – 1600 A, clamping attachment

Rated current max. A	Packs of	630	1000	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Clamping attachment	Clamping attachment	Clamping attachment	
Cable outlet		Bottom	Bottom	Bottom	
For switchgear make (model)		ABB (Tmax T5) Eaton (NZM3) Schneider Electric (NSX630) Siemens (3VA23, 3VA24, 3VL4)	ABB (Tmax T7 - 800 A/1000 A) Eaton (NZM4 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	ABB (Tmax T7 - 1250 A/1600 A) Eaton (NZM4 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/3VL8 - 1600 A)	
Width mm		150	300	300	
Height mm		585	652	652	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.770**	**9677.700**	**9677.710**	
Product-specific scope of supply					
Connection straps		■	–	–	
Also required					
Connector kit		–	see page	see page	382
Contact hazard protection cover plate		–	see page	see page	382



Busbar system Page 368 **Connection adaptors** Page 370 **Connection block** Page 371 **NH slimline switch-disconnectors** Page 374

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Note:
- Cable outlet: Switch outlet or as outgoing cable from the switchgear
- Suitable for the use of switchgear with front screw terminal
- For attaching to busbars with holes. Please ensure that there is no cover section installed in the vicinity of the device.

Rated current max. 630 – 1600 A, screw attachment

Rated current max. A	Packs of	630	1000	1600	Page
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Bottom	Bottom	
For switchgear make (model)		ABB (Tmax T5) Eaton (NZM3) Schneider Electric (NSX630) Siemens (3VA23, 3VA24, 3VL4)	ABB (Tmax T7 - 800 A/1000 A) Eaton (NZM4 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	ABB (Tmax T7 - 1250 A/1600 A) Eaton (NZM4 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/3VL8 - 1600 A)	
Width mm		150	300	300	
Height mm		585	652	652	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.780**	**9677.705**	**9677.715**	
Product-specific scope of supply					
Connection straps		■	–	–	
Also required					
Connector kit		–	see page	see page	382
Contact hazard protection cover plate		–	see page	see page	382

NH slimline fuse-switch disconnectors

Busbar system Page 368 **Connection adaptors** Page 370 **Connection block** Page 371 **Component adaptors** Page 372

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Note:
- When using components on busbars with contact hazard protection cover, the contact terminal must be used

Size 00 – 3, design single-pole, switchable

Size	Packs of	00	1	2	3	Page
Twin track		–	–	–	–	
Rated operating current max. A		160	250	400	630	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M8	Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		1.5 - 95	6 - 240	6 - 240	6 - 240	
Width mm		50	100	100	100	
Height mm		670	670	670	670	
For converter installation		■	■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	185	
For bar thickness mm		10	10	10	10	
Model No.	1 pc(s).	**9677.010**	**9677.110**	**9677.210**	**9677.310**	
Accessories						
Connection space cover	1 pc(s).	see page	9677.410	9677.410	9677.410	383
Contact terminal	3 pc(s).	9677.450	9677.460	9677.460	9677.460	383
Busbar terminal	3 pc(s).	9677.470	9677.480	9677.480	9677.480	384
Prism terminal	3 pc(s).	9677.420	–	–	–	384
V connection terminal	3 pc(s).	–	9677.430	9677.430	9677.440	384
Current converter	1 pc(s).	9677.810	see page	see page	see page	385
Cover	5 pc(s).	–	9677.415	9677.415	9677.415	385
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	9677.407	386
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	358

NH slimline fuse-switch disconnectors

Size 00 – 1, design 3-pole, switchable

Size	Packs of	00	00	1	Page
Twin track		–	–	–	
Rated operating current max. A		160	160	250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M8	Box terminal	Bolt M12	
Connection of round conductors mm²		1.5 - 95	1.5 - 95	6 - 240	
Width mm		50	50	100	
Height mm		670	670	670	
For converter installation		■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.000**	**9677.025**	**9677.100**	
Accessories					
Connection space cover	1 pc(s).	see page	see page	9677.410	383
Contact terminal	3 pc(s).	9677.450	9677.450	9677.460	383
Busbar terminal	3 pc(s).	9677.470	9677.470	9677.480	384
Prism terminal	3 pc(s).	9677.420	–	–	384
V connection terminal	3 pc(s).	–	–	9677.430	384
Current converter	1 pc(s).	9677.810	9677.810	see page	385
Cover	5 pc(s).	–	–	9677.415	385
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	386
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	358

Size 2 – 3, design 3-pole, switchable

Size	Packs of	2	3	3	Page
Twin track		–	–	■	
Rated operating current max. A		400	630	1250	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Bottom	
Type of connection		Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm²		6 - 240	6 - 240	6 - 240	
Width mm		100	100	200	
Height mm		670	670	670	
For converter installation		■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.200**	**9677.300**	**9677.340**	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	–	383
Contact terminal	3 pc(s).	9677.460	9677.460	9677.460	383
Busbar terminal	3 pc(s).	9677.480	9677.480	9677.480	384
Prism terminal		–	–	–	
V connection terminal	3 pc(s).	9677.430	9677.440	–	384
Current converter		see page	see page	see page	385
Cover	5 pc(s).	9677.415	9677.415	–	385
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	386
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	358

NH slimline fuse-switch disconnectors

Busbar system Page 368 **Connection adaptors** Page 370 **Connection block** Page 371 **Component adaptors** Page 372

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Note:
- When using components on busbars with contact hazard protection cover, the contact terminal must be used

Size 00 – 3, with electronic fuse monitoring

Size	Packs of	00	1	2	3	Page
Design		3-pole, switchable	3-pole, switchable	3-pole, switchable	3-pole, switchable	
Rated operating current max. A		160	250	400	630	
Rated operating voltage V, ~		400, 3~	400, 3~	400, 3~	400, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	Top/bottom	Top/bottom	
Type of connection		Screw M8	Bolt M12	Bolt M12	Bolt M12	
Connection of round conductors mm^2		1.5 - 95	6 - 240	6 - 240	6 - 240	
Width mm		50	100	100	100	
Height mm		830	830	830	830	
For converter installation		■	■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	185	
For bar thickness mm		10	10	10	10	
Model No.	1 pc(s).	**9677.015**	**9677.115**	**9677.215**	**9677.315**	
Accessories						
Connection space cover	1 pc(s).	see page	9677.410	9677.410	9677.410	383
Contact terminal	3 pc(s).	9677.450	9677.460	9677.460	9677.460	383
Busbar terminal	3 pc(s).	9677.470	9677.480	9677.480	9677.480	384
Prism terminal	3 pc(s).	9677.420	–	–	–	384
V connection terminal	3 pc(s).	–	9677.430	9677.430	9677.440	384
Current converter	1 pc(s).	9677.810	see page	see page	see page	385
Cover	5 pc(s).	–	9677.415	9677.415	9677.415	385
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	9677.407	386
Micro-switch	5 pc(s).	3071.000	3071.000	3071.000	3071.000	358

NH slimline switch-disconnectors

Busbar system Page 368 **Connection adaptors** Page 370 **Connection block** Page 371 **Component adaptors** Page 372

Functions:
- Automatic quick-break contact allows operator-independent switching
- Double-break for reliable disconnection of the contacts

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00, design 3-pole, switchable

Size	Packs of	00	00	00	00	Page
Rated operating current max. A		160	160	160	160	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	
Installation type		Clamping attachment	Clamping attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Top	Bottom	Top	
Type of connection		Screw M8	Screw M8	Screw M8	Screw M8	
Connection of round conductors mm^2		1.5 - 95	1.5 - 95	1.5 - 95	1.5 - 95	
Width mm		50	50	50	50	
Height mm		676	676	676	676	
For converter installation		■	■	■	■	
For bar systems with centre-to-centre spacing mm		185	185	185	185	
For bar thickness mm		10	10	10	10	
Model No.	1 pc(s).	**9677.060**	**9677.070**	**9677.065**	**9677.075**	
Accessories						
Connection space cover	1 pc(s).	9677.400	9677.400	9677.400	9677.400	383
Connection space cover, rear	1 pc(s).	9677.402	9677.402	9677.402	9677.402	386
Clamp-type terminal	3 pc(s).	9677.425	9677.425	9677.425	9677.425	386
Box terminal		–	–	–	–	
Contact terminal		–	–	–	–	
Current converter	1 pc(s).	9677.810	9677.810	9677.810	9677.810	385
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	9677.407	386
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	9677.418	387

NH slimline switch-disconnectors

Size 1 – 2, design 3-pole, switchable

Size	Packs of	1	1	2	Page
Rated operating current max. A		250	250	400	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Top	Bottom	
Type of connection		Screw M12	Screw M12	Screw M12	
Connection of round conductors mm^2		6 - 240	6 - 240	6 - 240	
Width mm		100	100	100	
Height mm		772	772	772	
For converter installation		–	–	–	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.160**	**9677.165**	**9677.260**	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	9677.410	383
Connection space cover, rear	1 pc(s).	9677.412	9677.412	9677.412	386
Clamp-type terminal		–	–	–	
Box terminal		see page	see page	see page	387
Contact terminal	3 pc(s).	9677.485	9677.485	9677.485	387
Current converter		–	–	–	
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	386
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	387

Size 2 – 3, design 3-pole, switchable

Size	Packs of	2	3	3	Page
Rated operating current max. A		400	630	500	
Rated operating voltage V, ~		690, 3~	690, 3~	690, 3~	
Number of poles		3-pole	3-pole	3-pole	
Installation type		Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Top	Bottom	Top	
Type of connection		Screw M12	Screw M12	Screw M12	
Connection of round conductors mm^2		6 - 240	6 - 240	6 - 240	
Width mm		100	100	100	
Height mm		772	772	772	
For converter installation		–	–	–	
For bar systems with centre-to-centre spacing mm		185	185	185	
For bar thickness mm		10	10	10	
Model No.	1 pc(s).	**9677.265**	**9677.360**	**9677.365**	
Accessories					
Connection space cover	1 pc(s).	9677.410	9677.410	9677.410	383
Connection space cover, rear	1 pc(s).	9677.412	9677.412	9677.412	386
Clamp-type terminal		–	–	–	
Box terminal		see page	see page	see page	387
Contact terminal	3 pc(s).	9677.485	9677.485	9677.485	387
Current converter		–	–	–	
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	386
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	387

NH slimline switch-disconnectors

Busbar system Page 368 **Connection adaptors** Page 370 **Connection block** Page 371 **Component adaptors** Page 372

Functions:
- Automatic quick-break contact allows operator-independent switching
- Double-break for reliable disconnection of the contacts

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Partially silver-plated hard copper

Colour:
- Chassis: RAL 7035
- Cover: RAL 7001
- Handle: RAL 7016

Basis of test:
- IEC/DIN EN 60 947-3
- DIN EN 60 269-2 (fuse inserts)

Size 00 – 3, with electronic fuse monitoring

Size	Packs of	00	00	1	2	3	Page
Design		3-pole, switchable	3-pole, switchable	3-pole, switchable	3-pole, switchable	3-pole, switchable	
Rated operating current max. A		160	160	250	400	630	
Rated operating voltage V, ~		400, 3~	400, 3~	400, 3~	400, 3~	400, 3~	
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole	
Installation type		Clamping attachment	Screw attachment	Screw attachment	Screw attachment	Screw attachment	
Cable outlet		Bottom	Bottom	Bottom	Bottom	Bottom	
Type of connection		Screw M8	Screw M8	Screw M12	Screw M12	Screw M12	
Connection of round conductors mm^2		1.5 - 95	1.5 - 95	6 - 240	6 - 240	6 - 240	
Width mm		50	50	100	100	100	
Height mm		860	860	941	941	941	
For converter installation		■	■	–	–	–	
For bar systems with centre-to-centre spacing mm		185	185	185	185	185	
For bar thickness mm		10	10	10	10	10	
Model No.	1 pc(s).	**9677.080**	**9677.085**	**9677.180**	**9677.280**	**9677.380**	
Accessories							
Connection space cover	1 pc(s).	9677.400	9677.400	9677.410	9677.410	9677.410	383
Connection space cover, rear	1 pc(s).	9677.402	9677.402	9677.412	9677.412	9677.412	386
Clamp-type terminal	3 pc(s).	9677.425	9677.425	–	–	–	386
Box terminal		–	–	see page	see page	see page	387
Contact terminal	3 pc(s).	–	–	9677.485	9677.485	9677.485	387
Current converter	1 pc(s).	9677.810	9677.810	–	–	–	385
Trim strip	2 pc(s).	9677.407	9677.407	9677.407	9677.407	9677.407	386
Micro-switch	1 pc(s).	9677.418	9677.418	9677.418	9677.418	9677.418	387

Accessories

System attachment

for VX
For attaching busbar systems with 185 mm centre-to-centre spacing inside the enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 2 system attachments (left/right)
– 2 punched sections without mounting flanges
– Assembly parts

For enclosure width mm	Product-specific scope of supply	Packs of	Model No.
600	–	1 pc(s).	**9677.511**
800	–	1 pc(s).	**9677.521**
1000	System attachment (centre)	1 pc(s).	**9677.531**
1200	System attachment (centre)	1 pc(s).	**9677.541**

Assembly instruction:

– For variable depth adjustment of the busbar system in the enclosure, the punched section with mounting flange 23 x 64 mm for VX (for the inner mounting level) is additionally required. Select according to the enclosure depth.

Accessories:

– Punched section with mounting flange, 23 x 64 mm, see page 991
– Captive nuts, see page 1002

Busbar connector

For connecting rectangular busbars, no drilling required.

Material:
– E-Cu

Surface finish:
– Tin-plated

Note:
– If using a 100 x 10 mm busbar, one 9677.610 and one 9677.620 are required

For busbar mm	Quantity required per bar	Length mm	Packs of	Model No.
40 x 10 80 x 10 100 x 10	1 2 1	40	1 pc(s).	**9677.610**
60 x 10 100 x 10 120 x 10	1 1 2	60	1 pc(s).	**9677.620**

End cover

for busbar supports
For contact hazard protection of the busbar system on the left and right. Attachment is on the busbar supports.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Supply includes:
– 1 end cover, left
– 1 end cover, right

To fit Model No.	Packs of	Model No.
9677.500	2 pc(s).	**9677.600**

Contact hazard protection cover plate

for 185 mm busbar system

For contact hazard protection of the busbar assembly at the rear and front.

Material:
- Base tray: Polyphenylene ether (PPE)
- End section: Polyphenylene ether (PPE)
- Cover section: Polyamide
- Centre cover: Polyamide

Colour:
- RAL 7035

Supply includes:
- Cover section, slotted, 50 mm wide
- Cover sections, slotted, 100 mm wide
- Base trays
- Trim sections

For enclosure width mm	Product-specific scope of supply	Packs of	Model No.
600	–	1 pc(s).	**9677.550**
800	–	1 pc(s).	**9677.560**
1000	Centre cover for busbar support	1 pc(s).	**9677.570**
1200	Centre cover for busbar support	1 pc(s).	**9677.580**

Accessories:

- Cover strip, see page 381

Cover strip

for contact hazard protection cover

For covering the front exposed contact slots in the cover section.

Material:
- Polyamide
- Fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

Width mm	Height mm	To fit Model No.	Packs of	Model No.
100	67	9677.550/ 9677.560/ 9677.570/ 9677.580	3 pc(s).	**9677.650**

Contact hazard protection cover plate

for enclosure connection

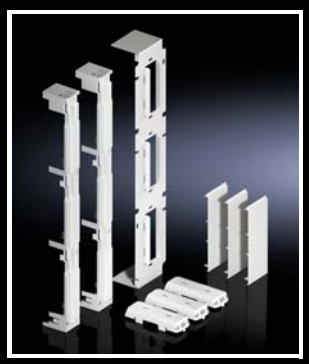
For rear and front contact hazard protection of the connection points from enclosure to enclosure, with and without busbar connectors.

Material:
- Base tray: Polyphenylene ether (PPE)
- Cover section: Polyamide
- Centre cover: Polyamide

Colour:
- RAL 7035

Supply includes:
- 3 base trays
- 1 cover (front)
- 2 centre covers for busbar support

Packs of	Model No.
1 pc(s).	**9677.640**



Accessories

Contact hazard protection cover plate

for connection block
To cover the connector block at the front.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– RAL 7035

Width mm	Height mm	Packs of	Model No.
105	245	1 pc(s).	**9677.925**

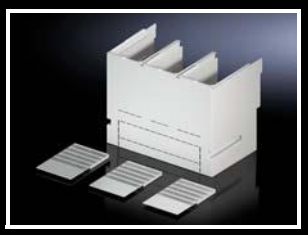
Connector kit

for component adaptors
Preassembled connector kit for common brands of moulded-case circuit-breaker (MCCB). For electrical connection between the switch and the component adaptor (3-pole).

Material:
– E-Cu

Supply includes:
– Assembly parts

For switchgear make (model)	To fit Model No.	Packs of	Model No.
ABB (Tmax T7 - 800 A/1000 A) Schneider Electric (NS - 800 A/1000 A)	9677.700/9677.705	1 pc(s).	**9677.730**
Eaton (NZM4 - 800 A/1000 A) Siemens (VL1250/3VL7 - 1000 A)	9677.700/9677.705	1 pc(s).	**9677.740**
ABB (Tmax T7 - 1250 A/1600 A) Schneider Electric (NS - 1250 A/1600 A)	9677.710/9677.715	1 pc(s).	**9677.750**
Eaton (NZM4 - 1250 A/1600 A) Siemens (VL1250/3VL7 - 1250 A, VL1600/VL8 - 1600 A)	9677.710/9677.715	1 pc(s).	**9677.760**



Contact hazard protection cover plate

for component adaptors
To cover the connector kit at the front. The cover may also optionally be used for the switchgear cable connection. Open cable accesses in the contact hazard protection cover may be sealed using the side panels.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Supply includes:
– Side panels

For switchgear make (model)	Packs of	Model No.
–	1 pc(s).	**9677.790**
ABB (Tmax T7)	1 pc(s).	**9677.792**
Eaton (NZM 4)	1 pc(s).	**9677.794**
Siemens (3VL7/3VL8)	1 pc(s).	**9677.796**
Schneider Electric (NS1600)	1 pc(s).	**9677.798**

Connection space cover

for NH slimline fuse-switch-disconnectors/NH slimline switch-disconnectors
Cascadable connection space cover to guarantee contact hazard protection in the cable connection zone when using ring terminals with a long collar.

Material:
– Polycarbonate
– Fire protection corresponding to UL 94-V0

Note:
– When using NH slimline fuse-switch disconnectors with top cable outlet, use of the connection space cover is mandatory

For size	To fit Model No.	Cable outlet	Note on Model No.	Packs of	**Model No.**
00	9677.0X0/9677.0X5	Bottom	Also suitable for use with NH slimline switch-disconnectors with top cable outlet	1 pc(s).	**9677.400**
00	9677.000/9677.010/ 9677.015/9677.025	Top	–	1 pc(s).	**9677.405**
1 - 3	9677.1X0/9677.1X5/ 9677.2X0/9677.2X5/ 9677.300/9677.310/ 9677.3X5	Top/bottom	–	1 pc(s).	**9677.410**

Contact terminal

for NH slimline fuse-switch disconnectors/ connection adaptors
For mounting components on busbar systems with 185 mm centre-to-centre spacing, no drilling required.

Material:
– Sheet steel, zinc-plated
– E-Cu, tin-plated

Note:
– Only suitable for use on busbar system with contact hazard protection cover (cover section, slotted)

For size	Packs of	**Model No.**
00	3 pc(s).	**9677.450**
1 - 3 and connection adaptors	3 pc(s).	**9677.460**

Accessories

Busbar terminal

for NH slimline fuse-switch disconnectors/ connection adaptors
For mounting components on busbar systems with 185 mm centre-to-centre spacing, no drilling required.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Note:
– Can only be used on busbar systems without contact hazard protection cover (cover section, slotted)

For size	Packs of	**Model No.**
00	3 pc(s).	**9677.470**
1 - 3 and connection adaptors	3 pc(s).	**9677.480**

Prism terminal

for NH slimline fuse-switch disconnectors
For the direct connection of round conductors.

Material:
– Brass

Surface finish:
– Tin-plated

For size	To fit Model No.	Connection of round conductors mm^2	Packs of	**Model No.**
00	9677.000/ 9677.010/ 9677.015	10 - 95	3 pc(s).	**9677.420**

V connection terminal

for NH slimline fuse-switch disconnectors
For the direct connection of round conductors.

Material:
– Brass

Surface finish:
– Tin-plated

For size	To fit Model No.	Connection of round conductors mm^2	Packs of	**Model No.**
1/2	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215	70 - 240	3 pc(s).	**9677.430**
3	9677.300/ 9677.310/ 9677.315	120 - 300	3 pc(s).	**9677.440**

Current converter

for NH slimline fuse-switch-disconnectors/ NH slimline switch-disconnectors
Compact design without altering the installation depth via mechanical integration into the NH slimline switch-disconnector (185 mm centre-to-centre spacing); this allows space-saving assembly.

Material:
– Polyamide

Basis of test:
– IEC 60 044-1
– EN 60715
– DIN VDE 0414
– DIN 42 600-2

For size	00	1 - 3	1 - 3	1 - 3	1 - 3
To fit Model No.	9677.000/ 9677.010/ 9677.015/ 9677.025/ 9677.060/ 9677.065/ 9677.070/ 9677.075/ 9677.080/ 9677.085	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340	9677.100/ 9677.110/ 9677.115/ 9677.200/ 9677.210/ 9677.215/ 9677.300/ 9677.310/ 9677.315/ 9677.340
Primary current A	150	200	250	400	600
Secondary current A	5	5	5	5	5
Accuracy class	1	1	1	1	1
Rated frequency Hz	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Insulation voltage kV	3	3	3	3	3
Insulating material category	E	B	B	B	B
Connection of round conductors mm^2	2.5 - 4	–	–	–	–
Type of connection	Screw terminals	Round conductor 2.5 mm^2 (length 1.5 m)	Round conductor 2.5 mm^2 (length 1.5 m)	Round conductor 2.5 mm^2 (length 1.5 m)	Round conductor 2.5 mm^2 (length 1.5 m)
Rated power input VA	2.5	1.5	2.5	2.5	2.5
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	**9677.810**	**9677.840**	**9677.860**	**9677.870**	**9677.880**

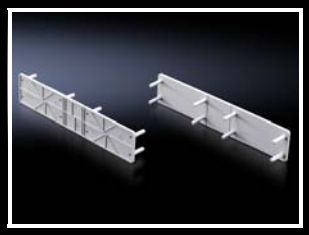
Cover

for NH slimline fuse-switch disconnectors
To increase rear contact hazard protection of the NH slimline fuse-switch-disconnector in the top section when mounting on a 185 mm bar system with contact hazard protection.

Material:
– Polyamide

Colour:
– RAL 7035

For size	Packs of	**Model No.**
1 - 3	5 pc(s).	**9677.415**



Accessories

Trim strip

for NH slimline fuse-switch-disconnectors/ NH slimline switch-disconnectors
To create a contact surface for individual use of a front contact hazard protection cover plate. Mounted on the side of the NH strip enclosure.

Material:
– Hard PVC

Colour:
– RAL 7035

For size	Packs of	Model No.
00 - 3	2 pc(s).	**9677.407**

Connection space cover, rear

for NH slimline switch-disconnectors
To guarantee contact hazard protection in the rear cable connection zone when using ring terminals with long press sleeves. In conjunction with the front connection space cover (9677.400/.410), this achieves all-round contact hazard protection of the connection space.

Material:
– Polyamide

Colour:
– RAL 7035

For size	Packs of	Model No.
00	1 pc(s).	**9677.402**
1 - 3	1 pc(s).	**9677.412**

Clamp-type terminal

for NH slimline switch-disconnectors
For the connection of round conductors.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For size	Connection of round conductors mm^2	Packs of	Model No.
00	16 - 70	3 pc(s).	**9677.425**

Box terminal

for NH slimline switch-disconnectors
For converting NH slimline switch-disconnectors to box terminal connection for round conductors.

Material:
– Aluminium
– E-Cu, silver-plated

Supply includes:
– Connection space cover, rear

For size	Connection of round conductors mm^2	Packs of	Model No.
1 - 3	70 - 240	3 pc(s).	**9677.435**
1 - 3	185 - 300	3 pc(s).	**9677.445**

Contact terminal

for NH slimline switch-disconnectors
For mounting NH slimline switch-disconnectors on bar systems with 185 mm centre-to-centre spacing, no drilling required.

Material:
– Sheet steel, zinc-plated
– E-Cu, tin-plated
– Polyamide

Note:
– Only suitable for use on busbar system with contact hazard protection cover (cover section, slotted)

For size	Packs of	Model No.
1 - 3	3 pc(s).	**9677.485**

Micro-switch

for NH slimline switch-disconnectors
To indicate the switch position of the NH unit (cover).

Supply includes:
– Bracket

For size	Rated operating current max. A	Rated operating voltage V	Packs of	Model No.
00 - 3	5	250	1 pc(s).	**9677.418**

Busbar systems (100/185/150 mm)

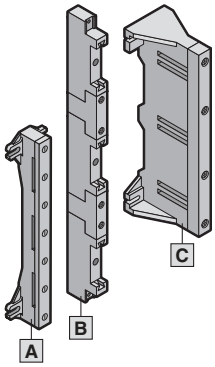
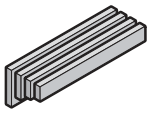
NH slimline fuse-switch disconnectors Page 335/374

Material: Busbar supports, inserts
- Fibreglass-reinforced, thermoplastic polyester (PBT)
- Fire protection corresponding to UL 94-V0

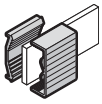
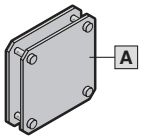
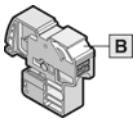
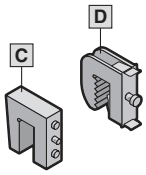
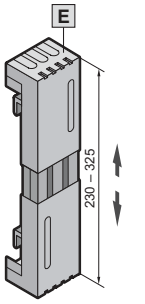
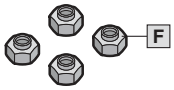
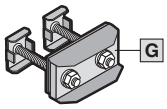
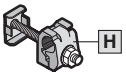
Colour:
- RAL 7035

Note:
- The base component of busbar support 3052.000 may also be used as a single-pole support

Busbar systems
1250 A (100 mm), 1600 A (185 mm), 2500 A (150 mm), 3000 A (150 mm)

Busbar supports, 3-pole			Packs of	Model No.				Page
				A 1250 A	B 1600 A	C 2500 A	C 3000 A	
	Width x height x depth mm			22 x 320 x 70	24 x 515 x 51	30 x 420 x 160	30 x 420 x 170	
	Max. bar accommodation mm			60 x 10	80 x 10	2 x 80 x 10	2 x 100 x 10	
	Inserts for a) Reducing the cross-section to mm b) Reducing the bar width in 10 mm increments			30 x 10 to 50 x 10 –	50/60 x 10 –	– ■	– ■	
	Bar centre distance mm			100	185	150	150	
	Packs of			4 pc(s).	2 pc(s).	2 pc(s).	2 pc(s).	
				3073.000	**3052.000**	**3055.000**	**3057.000**	
	Accessories							
	Inserts to adapt the bar dimensions	30 x 10 mm	24 pc(s).	**3074.000**	**–**	**–**	**–**	
		40 x 10 mm	24 pc(s).	**3075.000**	**–**	**–**	**–**	
		50 x 10 mm	24 pc(s).	**3076.000**	**3074.000**	**–**	**–**	
		60 x 10 mm	24 pc(s).	**–**	**3075.000**	**–**	**–**	
	Spacing piece for reducing the bar width in 10 mm increments		12 pc(s).	**–**	**–**	**3056.000**	**3056.000**	
Busbars E-Cu to DIN EN 13 601, length 2400 mm								
	Dimensions mm							
	30 x 10		3 pc(s).	3586.005	–	–	–	
	40 x 10		3 pc(s).	3587.000	–	–	–	
	50 x 10		2 pc(s).	3588.005	3588.005	–	–	342
	60 x 10		2 pc(s).	3589.005	3589.005	3589.005	3589.005	
	80 x 10		1 pc(s).	–	3590.005	3590.005	3590.005	
	100 x 10		1 pc(s).	–	–	–	3590.015	

Busbar systems (100/185/150 mm)

Contact hazard protection			Packs of	Model No. 1250 A	1600 A	2500 A	3000 A	Page
	End cover for busbar supports		10 pc(s).	**3083.000**	–	–	–	
	Busbar cover section, length 1 m for E-Cu	30 x 10 mm	10 pc(s).	3092.000	–	–	–	343
		40 x 10 to 60 x 10 mm	10 pc(s).	3085.000	3085.000	–	–	
Connection system, see page 349 (system accessories)								
	**A Plate clamps** for connecting laminated copper bars; no drilling required							
	For busbars mm	Clamping area for laminated copper bars mm						
	30 x 10	34 x 10	3 pc(s).	3554.000	–	–	–	350
	40 x 10	34 x 10	3 pc(s).	3559.000	–	–	–	
	50 x 10	34 x 10	3 pc(s).	3560.000	3560.000	–	–	
	50 x 10	54 x 10	3 pc(s).	3562.000	3562.000	–	–	
	60 x 10	34 x 10	3 pc(s).	3561.000	3561.000	–	–	
	60 x 10	54 x 10	3 pc(s).	3563.000	3563.000	–	–	
	80 x 10	65 x 10	3 pc(s).	–	3460.500	–	–	
	B Push-in conductor connection clamps for 10 mm bar thickness							
	Connection of round conductors mm^2	Clamping area for laminated copper bars mm						
	0.5 – 6	–	10 pc(s).	3455.505	3455.505	3455.505	3455.505	349
	1.5 – 16	–	10 pc(s).	3456.505	3456.505	3456.505	3456.505	
	Conductor connection clamps for 10 mm bar thickness							
	Connection of round conductors mm^2	Clamping area for laminated copper bars mm						
	C 1 – 4	–	15 pc(s).	3555.000	3555.000	3555.000	3555.000	
	1 – 4	–	15 pc(s).	3455.500	3455.500	3455.500	3455.500	349
	2.5 – 16	8 x 8	15 pc(s).	3456.500	3456.500	–	–	
	D 16 – 50	10.5 x 11	15 pc(s).	3457.500	3457.500	–	–	
	35 – 70	16.5 x 15	15 pc(s).	3458.500	3458.500	–	–	
	70 – 185	22.5 x 20	15 pc(s).	3459.500	3459.500	–	–	
	E System covers for conductor connection clamps and plate clamps							
	Width x depth mm							
	50 x 80		4 pc(s).	3086.000	–	–	–	350
	100 x 80		4 pc(s).	3087.000	–	–	–	
	100 x 110		4 pc(s).	3090.000	–	–	–	
	200 x 80		4 pc(s).	3088.000	–	–	–	
	200 x 110		4 pc(s).	3091.000	–	–	–	
	**F Inserted screw nuts M12,** self-holding nuts with knurled ring for mounting NH slimline fuse-switch disconnectors							
	For drilled holes in busbars Ø 14.5 mm		30 pc(s).	3591.060	3591.060	–	–	1039
	G Connection plate for laminated copper bars							
	For connecting laminated copper bars up to 2 x 10 x 100 x 1.0 mm to a busbar system with 2 bars per conductor	For laminated copper bars up to						
		2 x 10 x 32 x 1 mm	1 pc(s).	–	–	9676.747[1)]	9676.747[1)]	399
		2 x 10 x 63 x 1 mm	1 pc(s).	–	–	9676.748[1)]	9676.748[1)]	
		2 x 10 x 100 x 1 mm	1 pc(s).	–	–	9676.749[1)]	9676.749[1)]	
	**H Direct connection terminal**							
	For the direct connection of round conductors 95 – 300 mm^2 (single-wire and multi-wire)		1 pc(s).	–	–	9676.730[1)]	9676.730[1)]	398

[1)] The required screw connection must be ordered separately according to the busbar width, see page 400

VX25 Ri4Power – Greater flexibility with interior installation

Variable adaptation

- Removal of the pre-punched knock-outs in the compartment dividers is burr-free, for flexible subdivision of the openings depending on the planned cable routing. This supports a continuous, direct power supply to the control and wiring sections.
- Cross member cutter 4054.870 for removing the pre-punched knock-outs, see page 586.

Flexible busbar routing

- The main busbars may optionally be routed in the roof section or central rear section, for enhanced planning and space flexibility.

Optimum continuity

- Because PE or N conductors are connected by directly screw-fastening the busbar supports to the frame section, this ensures an identical, consistent arrangement of bars in the rear or front enclosure area across all section types.

VX25 Ri4Power – Enhanced efficiency for bar systems

Significant reduction in parts

- The 25 mm pitch pattern allows busbar supports to be mounted directly onto the enclosure section. Just three screws is all you need. No further components are required.

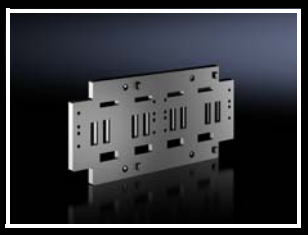
A high level of standardisation

- Standard bars in sizes 30 x 10 mm and 50 x 10 mm are used.

Quick busbar connection

- The open busbar support can additionally accommodate the busbar connector, for simple, fast connection to the next section.

Flat-PLS



Busbar supports

for distribution busbar system
For assembling vertical distribution busbar systems (2 x 30 x 10 mm, 3-/4-pole, 70 mm centre-to-centre spacing) or busbar systems (30 x 5/10 mm, 3-/4-pole, 60 mm centre-to-centre spacing) with RiLine components in modular outgoing sections.

Material:
– Duroplastic
– Fire protection corresponding to UL 94-V0

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

For busbar mm	Bar centre distance mm	Packs of	Model No.
30 x 5/10 30 x 10	60 70	2 pc(s).	**9686.100**

Also required:
– Busbars E-Cu, see page 342

Accessories:
– End cover, see page 396

Busbar supports

for busbar entry (roof section)
For inserting 3- or 4-pole flat copper busbar systems into the roof section.

Material:
– Duroplastic
– Fire protection corresponding to UL 94-V0

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

For busbar mm	Bar centre distance mm	Packs of	Model No.
30 x 10	80	2 pc(s).	**9686.010**
50 x 10	80	2 pc(s).	**9686.040**

Also required:
– Busbars E-Cu, see page 342
– Captive nuts, see page 1002

Assembly instruction:
– For the installation of max. 4 busbars (sub-conductors) per phase
– Cage nut (M8) 4165.500 is required to attach the busbar supports to the enclosure section.

Accessories:
– End cover, see page 396

Busbar supports

for busbar baying (roof section)
For baying 3- or 4-pole flat copper busbar systems from enclosure to enclosure in the roof section.

Material:
– Duroplastic
– Fire protection corresponding to UL 94-V0

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

For busbar mm	Bar centre distance mm	Packs of	Model No.
30 x 10	80	2 pc(s).	**9686.000**
50 x 10	80	2 pc(s).	**9686.030**

Also required:
– Busbars E-Cu, see page 342
– Longitudinal connector E-Cu, see page 397
– Captive nuts, see page 1002

Assembly instruction:
– For the installation of max. 4 busbars (sub-conductors) per phase
– Cage nut (M8) 4165.500 is required to attach the busbar supports to the enclosure section.

Accessories:
– End cover, see page 396

Possible alternative:
– Busbar E-Cu, slotted, see page 396

Busbar supports

for busbar entry (rear section)
For inserting 3-pole flat copper busbar systems into the rear section of the enclosure.

Material:
– Duroplastic
– Fire protection corresponding to UL 94-V0

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

For busbar mm	Bar centre distance mm	Packs of	Model No.
50 x 10	185	2 pc(s).	**9686.070**

Also required:
– Busbars E-Cu, see page 342
– Captive nuts, see page 1002

Assembly instruction:
– For the installation of max. 4 busbars (sub-conductors) per phase
– Cage nut (M8) 4165.500 is required to attach the busbar supports to the enclosure section.

Accessories:
– End cover, see page 396

Flat-PLS

Busbar supports

for busbar baying (rear section)
For baying 3-pole flat copper busbar systems in the rear section from enclosure to enclosure.

Material:
– Duroplastic
– Fire protection corresponding to UL 94-V0

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

For busbar mm	Bar centre distance mm	Packs of	**Model No.**
50 x 10	185	2 pc(s).	**9686.060**

Also required:
– Busbars E-Cu, see page 342
– Longitudinal connector E-Cu, see page 397
– Captive nuts, see page 1002

Assembly instruction:
– For the installation of max. 4 busbars (sub-conductors) per phase
– Cage nut (M8) 4165.500 is required to attach the busbar supports to the enclosure section.

Accessories:
– End cover, see page 396

Possible alternative:
– Busbar E-Cu, slotted, see page 396

End cover

for busbar supports
For shock-hazard-protected covering of the busbar ends on the busbar holder.

Material:
– Polyamide
– Fire protection corresponding to UL 94-HB

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	**Model No.**
50	147	3 pc(s).	**9686.080**

Busbar E-Cu, slotted

Busbars with integral punchings.

Material:
– E-Cu F30

Standards:
– DIN EN 13 601

Dimensions mm	Length mm	Hole diameter mm	Packs of	**Model No.**
50 x 10	385	11.5	1 pc(s).	**9684.004**
50 x 10	585	11.5	1 pc(s).	**9684.006**
50 x 10	785	11.5	1 pc(s).	**9684.008**
50 x 10	985	11.5	1 pc(s).	**9684.010**
50 x 10	1185	11.5	1 pc(s).	**9684.012**

Accessories:
– Longitudinal connector E-Cu, see page 397

Longitudinal connector E-Cu

for busbar baying
For connecting the main busbar system from enclosure to enclosure.

Material:
– E-Cu

Supply includes:
– Assembly parts

Design for main busbar 30 x 10 mm

Dimensions mm	Length mm	No. of sub-conductors per phase	Packs of	Model No.
35 x 10	195	1	1 pc(s).	**9686.210**
60 x 10	195	2 4	1 pc(s).	**9686.200**

Design for main busbar 50 x 10 mm

Dimensions mm	Length mm	No. of sub-conductors per phase	Packs of	Model No.
55 x 10	195	1	1 pc(s).	**9686.260**
100 x 10	195	2 4	1 pc(s).	**9686.250**

Connection system Flat-PLS

Busbar claw

for flat copper busbars
For mechanical stabilisation of busbar stacks. Suitable for 10 mm bar thickness.

Material:
– Stainless steel

For no. of busbars	Mounting dimensions mm	Packs of	Model No.
2	20	1 pc(s).	**9676.017**
4	20	1 pc(s).	**9676.019**

Also required:
– M10 screw, see page 400

Assembly instruction:
– The required screw length must be selected in line with the busbar width W, i.e. length = W + fastening measurement. Screws are not included with the supply.
– Busbar claw with threaded insert M10

Busbar claw

for connection components
For mechanical connection of connection components such as connection brackets. Suitable for 10 mm bar thickness.

Material:
– Stainless steel

For no. of busbars	Mounting dimensions mm	Packs of	Model No.
2	40	8 pc(s).	**9676.832**

Also required:
– M10 screw, see page 400

Assembly instruction:
– The required screw length must be selected in line with the busbar width W, i.e. length = W + fastening measurement. Screws are not included with the supply.
– Busbar claw with threaded insert M10

Direct connection terminal

for round conductors
For connecting round conductors to a busbar distributor system made from flat copper. Suitable for 10 mm bar thickness.

Material:
– Connection clamp: Brass, tin-plated
– Busbar claw: Stainless steel

Supply includes:
– Assembly parts (excluding screws)

No. of sub-conductors per phase	Connection of round conductors mm^2	Mounting dimensions mm	Packs of	Model No.
2	95 - 300	60	1 pc(s).	**9676.730**

Also required:
– M10 screw, see page 400

Assembly instruction:
– The required screw length must be selected in line with the busbar width W, i.e. length = W + fastening measurement. Screws are not included with the supply.
– Busbar claw with threaded insert M10

Connection plate

for laminated copper bars

For connecting laminated copper bars to a busbar distributor system made from flat copper. Suitable for 10 mm bar thickness.

Material:
- Connection plate: E-Cu
- Thrust piece: Stainless steel
- Busbar claw: Stainless steel

Supply includes:
- Assembly parts (excluding screws)

No. of sub-conductors per phase	Clamping area for laminated copper bars (W x H) mm	Mounting dimensions mm	Packs of	Model No.
2	32 x 20	50	1 pc(s).	**9676.747**
2	63 x 20	50	1 pc(s).	**9676.748**
2	100 x 20	50	1 pc(s).	**9676.749**

Also required:
- M10 screw, see page 400

Assembly instruction:
- The required screw length must be selected in line with the busbar width W, i.e. length = W + fastening measurement. Screws are not included with the supply.
- Busbar claw with threaded insert M10

Accessories:
- Laminated copper bar, see page 346

Connection plate

for ring terminals

For connecting ring terminals to a busbar distributor system made from flat copper. Suitable for 10 mm bar thickness.

Material:
- Connection plate: E-Cu, nickel-plated
- Busbar claw: Stainless steel

Supply includes:
- Assembly parts (excluding screws)

Thread	No. of sub-conductors per phase	Mounting dimensions mm	Product-specific scope of supply	Packs of	Model No.
M10	2	40	–	1 pc(s).	**9676.710**
M12	2	20	Grub screw	1 pc(s).	**9676.700**

Also required:
- M10 screw, see page 400

Assembly instruction:
- The required screw length must be selected in line with the busbar width W, i.e. length = W + fastening measurement. Screws are not included with the supply.
- Busbar claw with threaded insert M10

Connection system Flat-PLS

Connection set

for Flat-PLS
For attaching NH slimline fuse-switch disconnectors and NH slimline switch-disconnectors (185 mm) or for connecting busbars. Suitable for busbar system with flat copper 50 x 10 mm

Material:
– Sheet steel, zinc-plated

Note:
– Screws are not included with the supply

Thread	For no. of busbars	Packs of	Model No.
M8	2 4	3 pc(s).	**9686.800**
M10	2 4	3 pc(s).	**9686.810**

Assembly instruction:

– The connection set may only be used with top-mounting components with screw fastening
– NH slimline fuse-switch disconnectors:
The required screw length when using busbars is 2 x 50 x 10 mm = 35 mm and 4 x 50 x 10 mm = 55 mm
– NH slimline switch-disconnectors: Only suitable for attaching to busbars 2 x 50 x 10 mm
– When using 4 busbars per phase, a filler piece is additionally required

Accessories:

– M10 screw, see page 400
– Filler piece, see page 400

Filler piece

for connection set
When using top-mounting components on a busbar system with 4 busbars per phase, a filler piece is additionally required between the bars.

Material:
– E-Cu

Dimensions mm	Length mm	Packs of	Model No.
25 x 10	110	3 pc(s).	**9686.820**

M10 screw

For attaching the busbar claw or connection components to a flat copper busbar system.

Material:
– Stainless steel

Screw design mm	Packs of	Model No.
M10 x 60	8 pc(s).	**9676.806**
M10 x 70	8 pc(s).	**9676.807**
M10 x 80	8 pc(s).	**9676.808**
M10 x 90	8 pc(s).	**9676.809**
M10 x 100	8 pc(s).	**9676.810**
M10 x 110	8 pc(s).	**9676.811**
M10 x 120	8 pc(s).	**9676.812**
M10 x 130	8 pc(s).	**9676.813**
M10 x 140	8 pc(s).	**9676.814**
M10 x 150	8 pc(s).	**9676.815**
M10 x 160	8 pc(s).	**9676.816**
M10 x 170	8 pc(s).	**9676.817**
M10 x 190	8 pc(s).	**9676.819**

End supports

for Maxi-PLS busbars
For attaching Maxi-PLS busbars when used as a cable connection system. The stepped configuration ensures simple cable installation.

Material:
– Polyamide
– Fire protection corresponding to UL 94-V0

Colour:
– Similar to RAL 9011

Supply includes:
– Assembly parts

For system	Packs of	Model No.
Maxi-PLS 45 S Maxi-PLS 45	2 pc(s).	**9649.010**
Maxi-PLS 60	2 pc(s).	**9659.010**

Also required:
– Maxi-PLS busbar, E-Cu
for Maxi-PLS 45 S system, see page 401
– Maxi-PLS busbar, E-Cu
for Maxi-PLS 45 system, see page 401
– Maxi-PLS busbar, E-Cu
for Maxi-PLS 60 system, see page 402

Maxi-PLS busbar, E-Cu

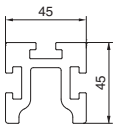
for Maxi-PLS 45 S system
For assembling cable connection systems.

Material:
– E-Cu

Note:
– May be cut individually to required length

Cross-section 974 mm²

For enclosure width mm	Length mm	Packs of	Model No.
600	451	1 pc(s).	**9640.207**
800	651	1 pc(s).	**9640.237**
1000	851	1 pc(s).	**9640.267**
1200	1051	1 pc(s).	**9640.297**
–	2400	3 pc(s).	**9640.365**



Maxi-PLS 45 S

Maxi-PLS busbar, E-Cu

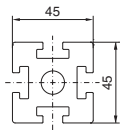
for Maxi-PLS 45 system
For assembling cable connection systems.

Material:
– E-Cu

Note:
– May be cut individually to required length

Cross-section 1354 mm²

For enclosure width mm	Length mm	Packs of	Model No.
600	451	1 pc(s).	**9640.202**
800	651	1 pc(s).	**9640.232**
1000	851	1 pc(s).	**9640.262**
1200	1051	1 pc(s).	**9640.292**
–	2400	3 pc(s).	**9640.360**
–	2400	4 pc(s).	**9649.360**



Maxi-PLS 45

Maxi-PLS

Maxi-PLS busbar, E-Cu

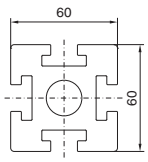
for Maxi-PLS 60 system
For assembling cable connection systems.

Material:
– E-Cu

Note:
– May be cut individually to required length

Cross-section 2323 mm²

For enclosure width mm	Length mm	Packs of	Model No.
600	451	1 pc(s).	**9650.202**
800	651	1 pc(s).	**9650.232**
1000	851	1 pc(s).	**9650.262**
1200	1051	1 pc(s).	**9650.292**
–	2400	3 pc(s).	**9650.360**
–	2400	4 pc(s).	**9659.360**



Maxi-PLS 60

Connection clamp

for round conductors
For the connection of round conductors.

Material:
– Connection clamp: Brass, tin-plated
– Terminal stud: Steel, zinc-plated
– Sliding block: E-Cu

Supply includes:
– Connection clamp
– Terminal studs
– Sliding block
– Assembly parts

For system	Connection of round conductors mm^2	Packs of	Model No.
Maxi-PLS 45 S/45	95 - 300	1 pc(s).	**9640.325**
Maxi-PLS 60	95 - 300	1 pc(s).	**9650.325**

Connection plate

for laminated copper bars
For the connection of laminated flat copper bars.

Material:
– Connection plate: E-Cu
– Thrust piece: Stainless steel

Supply includes:
– Assembly parts

For system	Clamping area for laminated copper bars (W x H) mm	Packs of	Model No.
Maxi-PLS 45 S/45	32 x 20	3 pc(s).	**9640.330**
Maxi-PLS 45 S/45	63 x 20	3 pc(s).	**9640.340**
Maxi-PLS 45 S/45	100 x 20	3 pc(s).	**9640.350**
Maxi-PLS 60	32 x 20	3 pc(s).	**9650.330**
Maxi-PLS 60	63 x 20	3 pc(s).	**9650.340**

Accessories:
– Laminated copper bar, see page 346

Terminal studs

for Maxi-PLS
For connecting cables with ring terminals.

Material:
– Terminal stud: Steel, zinc-plated
– Sliding block: E-Cu

Supply includes:
– Terminal studs
– Sliding blocks
– Assembly parts

For system	Thread	Thread length mm	Packs of	Model No.
Maxi-PLS 45 S/45	M12	30	3 pc(s).	**9640.370**
Maxi-PLS 45 S/45	M16	30	3 pc(s).	**9640.380**
Maxi-PLS 60	M12	32	3 pc(s).	**9650.370**
Maxi-PLS 60	M16	32	3 pc(s).	**9650.380**

Sliding block

for Maxi-PLS busbars
For attaching flat copper bars and connection components to Maxi-PLS busbars. For sliding into the busbar section at the side and tightening the threaded bolts.

Material:
– E-Cu

For system	Length mm	Thread	Packs of	Model No.
Maxi-PLS 45 S/45	20	M8	15 pc(s).	**9640.970**
Maxi-PLS 45 S/45	25	M10	15 pc(s).	**9640.980**
Maxi-PLS 60	25	M10	15 pc(s).	**9650.980**
Maxi-PLS 60	35	M12	15 pc(s).	**9650.990**

Also required:
– Threaded bolts, see page 404

Connection system Maxi-PLS

Sliding nut

for Maxi-PLS busbars
For attaching flat copper bars and connection components to Maxi-PLS busbars. For sliding into the busbar section retrospectively and tightening the threaded bolts.

Material:
– E-Cu

For system	Thread	Packs of	Model No.
Maxi-PLS 45 S/45	M6	15 pc(s).	**9640.900**
Maxi-PLS 45 S/45	M8	15 pc(s).	**9640.910**
Maxi-PLS 45 S/45	M10	15 pc(s).	**9640.920**
Maxi-PLS 60	M6	15 pc(s).	**9650.900**
Maxi-PLS 60	M8	3 pc(s).	**9650.905**
Maxi-PLS 60	M10	15 pc(s).	**9650.910**
Maxi-PLS 60	M12	15 pc(s).	**9650.920**

Also required:
– Threaded bolts, see page 404

Threaded bolts

for sliding blocks and sliding nuts
For individual connection options.

Material:
– Steel

Supply includes:
– Assembly parts

Also required:
– Sliding block, see page 403
– Sliding nut, see page 404

For system	Thread	Thread length mm	Packs of	Model No.
Maxi-PLS 45 S/45 Maxi-PLS 60	M6	35	6 pc(s).	**9640.930**
Maxi-PLS 45 S/45 Maxi-PLS 60	M8	35	6 pc(s).	**9640.940**
Maxi-PLS 45 S/45 Maxi-PLS 60	M10	35	8 pc(s).	**9676.971**
Maxi-PLS 45 S/45 Maxi-PLS 60	M10	45	8 pc(s).	**9676.972**
Maxi-PLS 45 S/45 Maxi-PLS 60	M10	55	8 pc(s).	**9676.973**
Maxi-PLS 45 S/45 Maxi-PLS 60	M10	70	8 pc(s).	**9676.976**
Maxi-PLS 45 S/45 Maxi-PLS 60	M10	80	8 pc(s).	**9676.977**
Maxi-PLS 60	M12	40	8 pc(s).	**9676.981**
Maxi-PLS 60	M12	50	8 pc(s).	**9676.982**
Maxi-PLS 60	M12	60	8 pc(s).	**9676.983**
Maxi-PLS 60	M12	70	8 pc(s).	**9676.986**
Maxi-PLS 60	M12	80	8 pc(s).	**9676.987**

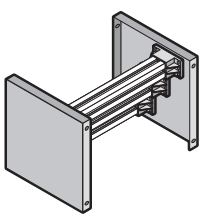
Compact infeed

for Maxi-PLS
For individual use as a 3-pole cable connection bar system. Direct mounting on the mounting plate or punched section without mounting flange.

Material:
– End support: Polyamide (PA 6)
– Retaining plate: Sheet steel, zinc-plated
– Punched rail: Sheet steel, zinc-plated

Supply includes:
– 6 end supports
– 2 support plates for end supports
– 1 punched rail 23 x 23 mm (length 495 mm)
– Assembly parts

For system	Packs of	Model No.
Maxi-PLS 45 S/45	1 pc(s).	**9660.980**



Accessories for connection components

Screw

for connection components
For connecting components such as connection brackets and connection kits.

Material:
– Sheet steel, zinc-plated

Supply includes:
– 8 nuts and 16 washers

Screw design mm	Packs of	Model No.
M10 x 40	8 pc(s).	**9676.966**
M10 x 45	8 pc(s).	**9686.845**
M10 x 55	8 pc(s).	**9686.865**
M10 x 60	8 pc(s).	**9676.967**
M10 x 80	8 pc(s).	**9676.968**

Support set (stabiliser)

for connector kit
To support connector kits, top or bottom, for open air circuit-breakers (ACB).

Material:
– Stabiliser: Fibreglass-reinforced polyester
– Angle bracket: Sheet steel

Supply includes:
– 4 plastic stabilisers
– 2 angle brackets
– Assembly parts

Note:
– The angle brackets included with the supply are only suitable for use in TS enclosures
– When using the support set in VX enclosures, angle bracket 9686.495 is additionally required

Packs of	Model No.
1 pc(s).	**9660.205**

Angle bracket

for support set (stabiliser)
For positioning and securing the holder set (stabiliser) to the enclosure section.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Note:
– An angle bracket consists of one bracket to be fastened to the enclosure section or the compartment side panel, and one bracket for mounting plastic stabilisers

Packs of	Model No.
4 pc(s).	**9686.495**

Connection components

Connection components for air circuit-breakers and busbar connections

For connecting air circuit-breakers (ACB) or for connecting horizontal and vertical busbar systems (T-connectors).

Material:
– E-Cu

Note:
– The design code required for the configuration code is generated by the VX25 Rittal Power Engineering software (www.rittal.com/rpevx25/)
– Please quote the complete configuration code on all enquiries and orders (see example)

Configuration code = order number + design code	Description	Section types
Model No. **9686.912** + design code	Connector kit for top/bottom	Air circuit-breakers (ACB), coupling section, cable transition section
Model No. **9686.924** + design code	T-connector kit for top/bottom	Modular outgoing feeder section, fuse-switch disconnector section horizontal/vertical, multi-terminal busbar section, riser section, corner section

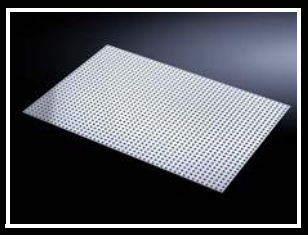
Example of creating the configuration code

1. Select section type “air circuit-breaker”

2. Select switch and manufacturer and enter other technical parameters, such as busbar position, number of poles, rated current etc.

3. The connector kit data is output using the "Determine prices and weights" function. Design code and associated drawings (.dwg, .pdf) are available via the "Download" function. The configuration code for the enquiry or order will then look like this:
Air circuit-breaker (ACB) Model No. 9686.912 + 8068A1A4H3V661O4-70

Form 1



Cover plate

Slotted
To cover live parts and comply with the internal protection category IP 2X and IP XXB within low-voltage switchgear and controlgear. Integral vent holes allow convection inside a system.

Material:
– PVC

Width mm	Height mm	Packs of	**Model No.**
1200	800	1 pc(s).	**9674.990**

Accessories:
– Mounting bracket, see page 408

Mounting bracket

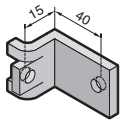
for contact hazard protection cover
For the attachment of contact hazard protection covers. Tapped hole M6.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	**Model No.**
24 pc(s).	**9660.090**



Contact hazard protection cover plate

for enclosures with NH slimline fuse-switch disconnectors

To cover outgoing sections with NH slimline fuse-switch disconnectors and busbar system in the rear enclosure section so that they are safe from finger contact (IP 2X).

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– 4 side panels (left/right side)
– 2 side panels (top/bottom)
– Assembly parts

Note:
– The specified installation width when using the contact hazard protection cover only applies when using busbar supports 9686.060/9686.070

For enclosure width mm	Free installation width when using Flat-PLS mm	Packs of	**Model No.**
600	400	1 pc(s).	**9684.960**
800	600	1 pc(s).	**9684.980**
1000	800	1 pc(s).	**9684.900**
1200	1000	1 pc(s).	**9684.920**

Accessories:

– Blanking cover, see page 409

Blanking cover

for contact hazard protection cover

To cover free NH slimline fuse-switch disconnector slots.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– 2 covers
– 2 cover brackets
– Assembly parts

Width mm	Packs of	**Model No.**
50	2 pc(s).	**9684.990**

Form 1-4

Compartment side panel

for VX
Side divider panel for attaching partial mounting plates and compartment dividers.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For busbar system assembly in the rear section

For enclosure height mm	For enclosure depth mm	Height mm	Depth mm	Packs of	Model No.
2000	600	1881	538	2 pc(s).	**9683.006**
2000	800	1881	738	2 pc(s).	**9683.008**

For busbar system assembly in the roof section

For enclosure height mm	For enclosure depth mm	Height mm	Depth mm	Packs of	Model No.
2000	600	1731	538	2 pc(s).	**9683.016**
2000	800	1731	738	2 pc(s).	**9683.018**
2200	600	1931	538	2 pc(s).	**9683.036**
2200	800	1931	738	2 pc(s).	**9683.038**

Accessories:

– Plastic gland plate, see page 410
– Compartment divider, see page 411
– Partial mounting plate, see page 413

Plastic gland plate

for compartment side panel
For closing cable entry openings.

Material:
– PVC, 3 mm

Colour:
– Similar to RAL 7045

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	Model No.
152	48	10 pc(s).	**9683.040**

Retaining plate

for cable connection space
For mounting Maxi-PLS busbars including end supports in the cable connection area.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Height mm	Depth mm	Packs of	Model No.
600	375	543	2 pc(s).	**9683.200**
800	375	743	2 pc(s).	**9683.210**

Also required:

– End supports, see page 401

Terminal box

for modular outgoing section

For shielding the connections (terminals) of the compartment, busbar space and cable chamber in accordance with Form 4b to IEC 61 439-2.

Material:
- Lid and cover: Sheet steel, 1.5 mm
- Cable retainer: Sheet steel

Surface finish:
- Lid and cover: Zinc-plated

Supply includes:
- 2 lids (top/bottom)
- 2 covers (front/rear)
- 2 cable retainers
- Assembly parts

For enclosure depth mm	For compartment height mm	Packs of	Model No.
600 800	150	1 pc(s).	**9683.701**
600 800	200	1 pc(s).	**9683.702**
600 800	300	1 pc(s).	**9683.703**
600 800	400	1 pc(s).	**9683.704**
600 800	600	1 pc(s).	**9683.706**

Also required:
- Compartment side panel, see page 410

Assembly instruction:
- The terminal boxes are externally mounted on the compartment side panel in the cable chamber, to match the heights of the compartments
- If necessary, a clamping strip may be mounted on the cable retainer included with the supply

Compartment divider

for VX

For the horizontal separation of compartments. In combination with the side panels, this creates Form separation to Form 1 to 4. For attachment to the compartment side panel or the enclosure section. The integral cut-outs with pre-punched knock-out option are used for the vertical routing of control lines or cable ducts and for the routing of distribution busbars or connection kits.

Design:
- With louvres

Material:
- Sheet steel, 1.5 mm

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

Assembly instruction:
- For assembling compartments as internal Form separation, compartment side panels are required

Accessories:
- Plastic gland plate, see page 412
- Compartment side panel, see page 410

For enclosure width mm	For enclosure depth mm	Width mm	Depth mm	Packs of	Model No.
400	400	311	380	2 pc(s).	**9683.444**
400	600	311	580	2 pc(s).	**9683.446**
400	800	311	780	2 pc(s).	**9683.448**
600	400	511	380	2 pc(s).	**9683.464**
600	600	511	580	2 pc(s).	**9683.466**
600	800	511	780	2 pc(s).	**9683.468**
800	400	711	380	2 pc(s).	**9683.484**
800	600	711	580	2 pc(s).	**9683.486**
800	800	711	780	2 pc(s).	**9683.488**
1000	600	911	580	2 pc(s).	**9683.406**
1000	800	911	780	2 pc(s).	**9683.408**
1200	600	1111	580	2 pc(s).	**9683.426**
1200	800	1111	780	2 pc(s).	**9683.428**

Form 1-4

Plastic gland plate

for compartment divider
To cover the compartment divider with gland.

Material:
– ABS

Colour:
– Similar to RAL 9005

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	Model No.
250	251	2 pc(s).	**9683.504**
450	251	2 pc(s).	**9683.506**
650	251	2 pc(s).	**9683.508**
850	251	2 pc(s).	**9683.500**

Air circuit-breaker support bar

For the configuration of air circuit-breakers (ACB) in compartments.

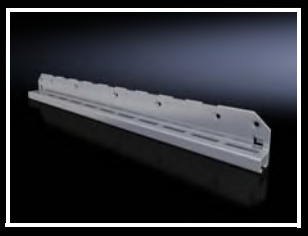
Material:
– Sheet steel, 2.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Length mm	Packs of	Model No.
400	296	2 pc(s).	**9683.304**
600	496	2 pc(s).	**9683.306**
800	696	2 pc(s).	**9683.308**
1000	896	2 pc(s).	**9683.310**
1200	1096	2 pc(s).	**9683.312**

Also required:
– Mounting bracket, see page 412



Mounting bracket

for air circuit-breaker support rail
For attaching the air circuit-breaker support rail to the enclosure section or compartment side panel.

Material:
– Sheet steel, 2.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
600	2 pc(s).	**9683.326**
800	2 pc(s).	**9683.328**

Partial mounting plate

for compartment side panel

For direct attachment to the compartment side panel for internal compartmentalisation. Universal interior installation with switchgear and controlgear. Creation of additional mounting levels. In combination with compartment dividers and side panel, internal compartmentalisation in accordance with Form 1 to 4 is possible.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Angle brackets and assembly parts

Design Solid

For enclosure width mm	For compartment height mm	Width mm	Height mm	Packs of	Model No.
400	200	302	193	1 pc(s).	**9683.642**
400	300	302	293	1 pc(s).	**9683.643**
400	400	302	393	1 pc(s).	**9683.644**
400	600	302	593	1 pc(s).	**9683.646**
400	800	302	793	1 pc(s).	**9683.648**
600	1000	502	993	1 pc(s).	**9683.660**
600	150	502	143	1 pc(s).	**9683.661**
600	200	502	193	1 pc(s).	**9683.662**
600	300	502	293	1 pc(s).	**9683.663**
600	400	502	393	1 pc(s).	**9683.664**
600	600	502	593	1 pc(s).	**9683.666**
600	800	502	793	1 pc(s).	**9683.668**
800	1000	702	993	1 pc(s).	**9683.680**
800	150	702	143	1 pc(s).	**9683.681**
800	200	702	193	1 pc(s).	**9683.682**
800	300	702	293	1 pc(s).	**9683.683**
800	400	702	393	1 pc(s).	**9683.684**
800	600	702	593	1 pc(s).	**9683.686**
800	800	702	793	1 pc(s).	**9683.688**
1000	400	902	393	1 pc(s).	**9683.604**
1000	600	902	593	1 pc(s).	**9683.606**
1000	800	902	793	1 pc(s).	**9683.608**
1200	400	1102	393	1 pc(s).	**9683.624**
1200	600	1102	593	1 pc(s).	**9683.626**
1200	800	1102	793	1 pc(s).	**9683.628**

Design with gland made from insulating material

For enclosure width mm	For compartment height mm	Width mm	Height mm	Packs of	Model No.
600	150	502	143	1 pc(s).	**9683.561**
600	200	502	193	1 pc(s).	**9683.562**
600	300	502	293	1 pc(s).	**9683.563**
600	400	502	393	1 pc(s).	**9683.564**

Form 1-4

Support frame

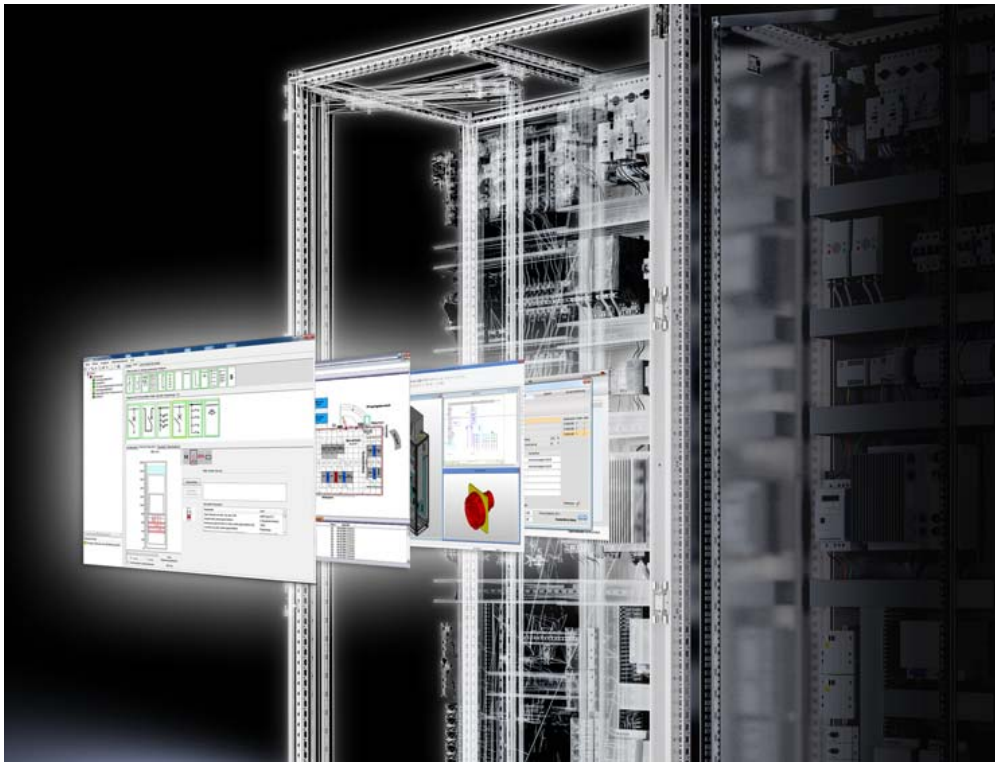
for DIN rail-mounted devices

Support frame set for accepting DIN rail-mounted devices (e.g. MCBs). The support rails are fastened with two mounting brackets to the compartment side panel. The cover is fastened to the support frame with knurled screws. In combination with functional space dividers, partial mounting plates and side panel modules, internal compartmentalisation in accordance with Form 2, 3 or 4 is possible.

Material:
- Support frame: Sheet steel, zinc-plated, passivated, 1.5 mm
- Cover: Sheet steel, spray finished, 1.5 mm

Supply includes:
- Support rails
- 2 mounting brackets
- 1 cover with cut-out
- Assembly parts

For enclosure width mm	For compartment height mm	No. of pitch units 17.5 mm	Packs of	**Model No.**
600	300	2 x 24	1 pc(s).	**9683.763**
800	300	2 x 36	1 pc(s).	**9683.783**



Certainty for engineering: optimum conversion and planning tools, see page 1160

Busbar support

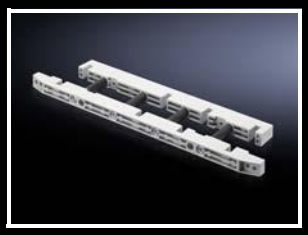
for fuse-switch disconnector section
Busbar supports for the distribution busbar system of the fuse-switch disconnector section.

Material:
– Duroplastic polyester

Supply includes:
– Mounting bracket and screws

For busbars mm	Number of poles	Packs of	Model No.
60 x 10	3-pole 4-pole	1 pc(s).	**9674.416**
80 x 10	3-pole 4-pole	1 pc(s).	**9674.418**
100 x 10	3-pole 4-pole	1 pc(s).	**9674.410**

Also required:
– Busbars E-Cu, see page 342
– End support, see page 415



End support

for fuse-switch disconnector section
End support for the distribution busbar system of the fuse-switch disconnector section, for vertical support of the distribution busbar system with infeed from above.

Material:
– Duroplastic polyester

Supply includes:
– Mounting bracket and screws

For busbars mm	Number of poles	Packs of	Model No.
60 x 10	3-pole 4-pole	1 pc(s).	**9674.436**
80 x 10	3-pole 4-pole	1 pc(s).	**9674.438**
100 x 10	3-pole 4-pole	1 pc(s).	**9674.430**

Also required:
– Busbars E-Cu, see page 342

Cover

Set for distribution busbar (Jean Müller fuse-switch disconnector section)
To cover the distribution busbar system of a fuse-switch disconnector section, designed to accommodate Jean Müller devices. The 150 mm high busbar and cable connection space covers shield the busbar compartment from the functional space so that it is safe from finger contact, with a protection category of IP 20.

Material:
– PVC, black

Supply includes:
– Set consisting of 12 busbar covers and cable connection space covers

For enclosure height mm	Packs of	Model No.
2000 2200	1 pc(s).	**9674.380**

Also required:
– Punched rail, see page 416

Punched rail

Set for cover, distribution busbar (Jean Müller fuse-switch disconnector section)
Required for mounting the distribution busbar cover.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Set consisting of 2 punched rails
– Assembly parts

Note:
– For 1 fuse-switch disconnector section, 1 pack of punched rails is required.

For enclosure height mm	Packs of	**Model No.**
2000 2200	1 pc(s).	**9674.381**

Cover

for distribution busbar (ABB/Siemens fuse-switch disconnector section)
To cover the distribution busbar system of a switch-disconnector-fuse section, designed to accommodate ABB (SlimLine) or Siemens (3NJ62) devices. The 200 mm high busbar compartment covers shield the busbar compartment from the functional space so that it is safe from finger contact, with a protection category of IP 20.

Material:
– PVC, black

Note:
– The cover may be ordered from ABB under model number NHP 407062R000X
– For enclosure height 2000 mm, a height of 1500 mm should be covered, and for enclosure height 2200 mm, a height of 1700 mm should be covered

Copper spacer roll

for Maxi-PLS busbars and flat copper bars
For use as a universal spacer.

Material:
– E-Cu

Height mm	Diameter mm	Hole Ø mm	Packs of	**Model No.**
20	30	13	4 pc(s).	**9676.503**
20	40	13	4 pc(s).	**9676.504**
20	50	13	4 pc(s).	**9676.505**

Wiring trim panel

for VX
Inner front cover of the main busbar system with the option of mounting a 40 x 20 mm (WxD) wiring channel. Suitable for use in Ri4Power switchgear with 300 mm high front trim panels. Horizontal cable routing behind the front trim panels. Also supports the installation of support rails with DIN rail mounted devices.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 1 wiring trim panel, 3-part
– Assembly parts

Note:
– For vertical cable routing, compartment dividers enable the installation of a wiring channel, thanks to pre-punched cut-outs.

For enclosure width mm	Packs of	**Model No.**
600 800	1 pc(s).	**9683.736**
1000 1200	1 pc(s).	**9683.738**

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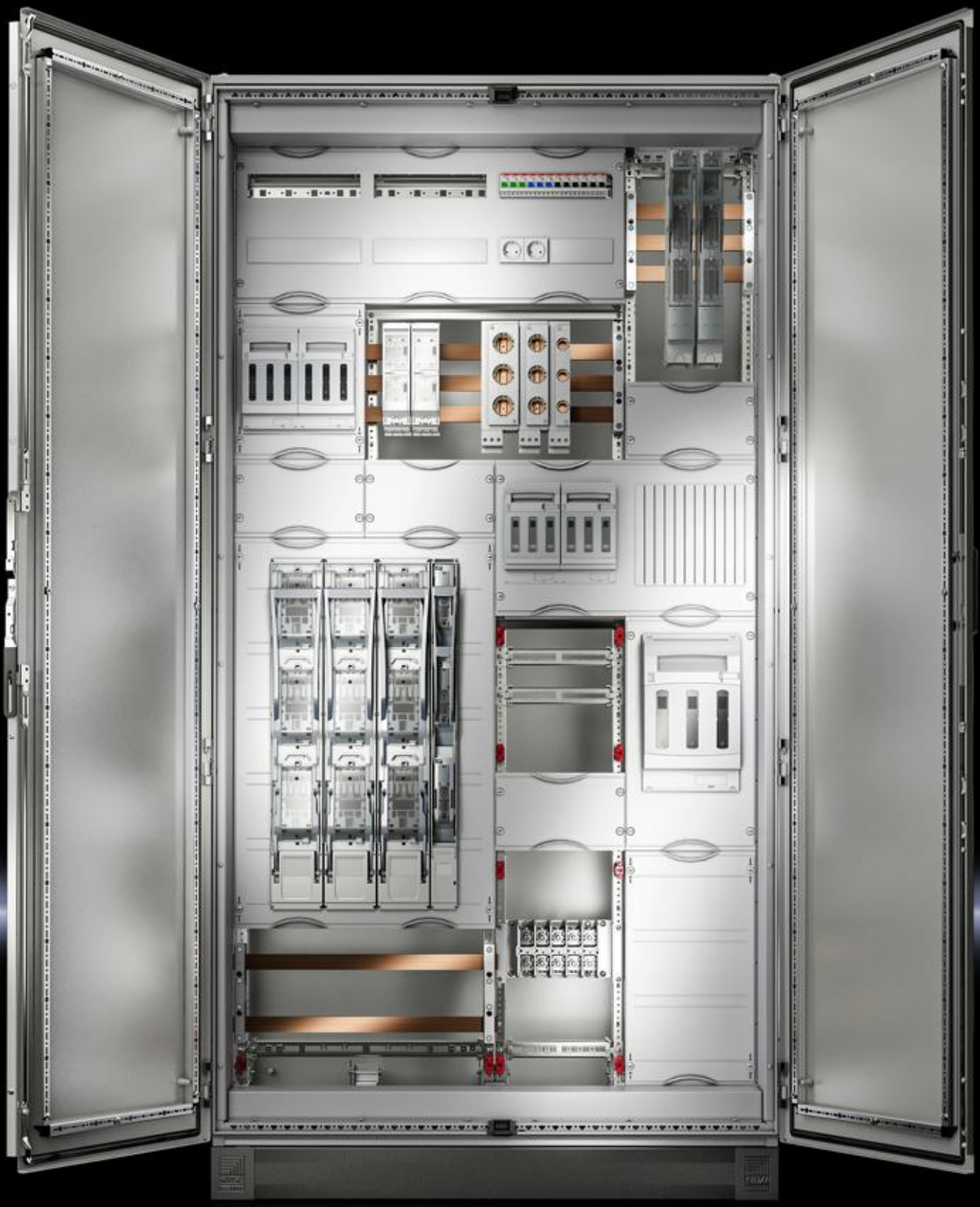


VX25 Ri4Power ISV distribution enclosures

Distribution enclosures

- Based on baying enclosure system VX25, see page 116
- Mounting kits, see page 420

Wall-mounted distributors

- Based on compact enclosure AX, see page 84
- Mounting kits, see page 420

Installation modules

- Easy mounting on support frame or support plate
- Individual combination and configuration
- Pitch pattern 150 x 250 mm
- Installation modules, see page 421

Power distribution components

- Bus-mounting fuse bases, see page 323
- NH fuse-switch disconnectors, see page 325
- NH slimline fuse-switch disconnectors, see page 335

Mounting kits

ISV installation kit

for VX

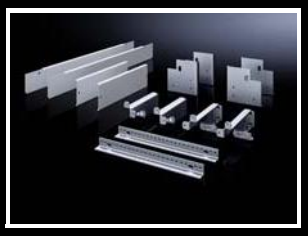
For mounting ISV installation modules in the enclosure.

Material:
- Mounting frame holder: Sheet steel, zinc-plated
- Contact hazard protection: sheet steel, spray-finished
- Contact hazard protection, sides: PVC

Supply includes:
- Mounting aid support
- Contact hazard protection
- Assembly parts

Accessories:
- Cross rail ISV, see page 429
- Mounting angles ISV, see page 429
- Depth stay, see page 430
- Equipment support connectors, see page 430

For enclosure width mm	For enclosure height mm	For enclosure depth mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	To fit Model No.	Note on Model No.	Packs of	**Model No.**
600	1800	400 500 600	2	11	8457.000/ 8684.000/ 8685.000/ 8686.000	Mounting angle 9666.711 and mounting plate 8612.400 are additionally required	1 pc(s).	**9666.932**
600	2000	400 500 600	2	12	8452.000/ 8604.000/ 8605.000/ 8606.000	Mounting angle 9666.712 and mounting plate 8612.400 are additionally required	1 pc(s).	**9666.902**
850	2000	400 600	3	12	9666.916/ 9666.956	Mounting angle 9666.712 and mounting plate 8612.400 are additionally required	1 pc(s).	**9666.912**
1100	2000	400 600	4	12	9666.926/ 9666.966	Mounting angle 9666.712, depth stay 9666.732 and mounting board 8612.400 are additionally required	1 pc(s).	**9666.922**



ISV installation kit

for AX

For mounting ISV installation modules in enclosures.

Material:
- Assembly kit: Sheet steel, zinc-plated
- Support rail: Sheet steel, zinc-plated
- Contact hazard protection: Sheet steel, spray-finished

Supply includes:
- Assembly kit
- Support rails
- Contact hazard protection
- Assembly parts

Also required:
- Mounting angles ISV, see page 429

For enclosure width mm	For enclosure height mm	For enclosure depth mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	To fit Model No.	Packs of	**Model No.**
380	600	210	1	3	1008.X00/ 1038.X00	1 pc(s).	**9666.801**
500	700	250	1	4	1057.X00	1 pc(s).	**9666.811**
600	760	210	2	4	1012.X00/ 1076.X00	1 pc(s).	**9666.821**
600	1000	250	2	6	1090.X00	1 pc(s).	**9666.831**
600	1200	300	2	7	1260.X00	1 pc(s).	**9666.841**
1000	1200	300	3	7	1019.X00/ 1213.X00/ 1305.X00	1 pc(s).	**9666.851**

Contact hazard protection module

For covering free installation areas. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Packs of	**Model No.**
250	150	1	1	1 pc(s).	**9666.000**
250	300	1	2	1 pc(s).	**9666.010**
250	450	1	3	1 pc(s).	**9666.020**
250	600	1	4	1 pc(s).	**9666.030**
500	150	2	1	1 pc(s).	**9666.040**
500	300	2	2	1 pc(s).	**9666.050**
500	450	2	3	1 pc(s).	**9666.060**
500	600	2	4	1 pc(s).	**9666.070**
750	300	3	2	1 pc(s).	**9666.053**
750	450	3	3	1 pc(s).	**9666.063**
750	600	3	4	1 pc(s).	**9666.073**

Mounting plate module

Possible installation depth 105 - 140 mm. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene
– Mounting plate: Sheet steel, zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Dimensions mounting plate (W x H) mm	Packs of	**Model No.**
250	150	1	1	188 x 116	1 pc(s).	**9666.080**
250	300	1	2	188 x 266	1 pc(s).	**9666.090**
250	450	1	3	188 x 416	1 pc(s).	**9666.100**
250	600	1	4	188 x 566	1 pc(s).	**9666.110**
500	150	2	1	438 x 116	1 pc(s).	**9666.120**
500	300	2	2	438 x 266	1 pc(s).	**9666.130**
500	450	2	3	438 x 416	1 pc(s).	**9666.140**
500	600	2	4	438 x 566	1 pc(s).	**9666.150**
750	300	3	2	688 x 266	1 pc(s).	**9666.133**
750	450	3	3	688 x 416	1 pc(s).	**9666.143**

Installation modules

Support rail module

For installing terminal blocks, switchgear, etc. with support rails 35 x 15 mm. Adjustable on a 25 mm pitch pattern. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene
– Support rail: Sheet steel, zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Accessories:

– Wiring bracket, see page 428

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Number of support rails	Packs of	Model No.
250	150	1	1	1	1 pc(s).	**9666.160**
250	300	1	2	2	1 pc(s).	**9666.170**
250	450	1	3	3	1 pc(s).	**9666.180**
250	600	1	4	4	1 pc(s).	**9666.190**
500	150	2	1	1	1 pc(s).	**9666.200**
500	300	2	2	2	1 pc(s).	**9666.210**
500	450	2	3	3	1 pc(s).	**9666.220**
500	600	2	4	4	1 pc(s).	**9666.230**
750	300	3	2	2	1 pc(s).	**9666.213**
750	450	3	3	3	1 pc(s).	**9666.223**

DIN rail mounted device module

To accommodate DIN rail mounted devices. With support rails 35 x 15 mm. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene
– Support rail: Sheet steel, zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Accessories:

– Cover strip, see page 428

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Max. pitch units @ 18 mm	Number of cut-outs	Number of support rails	Packs of	Model No.
250	150	1	1	12	1	1	1 pc(s).	**9666.240**
250	300	1	2	24	2	2	1 pc(s).	**9666.250**
250	450	1	3	36	3	3	1 pc(s).	**9666.260**
250	600	1	4	48	4	4	1 pc(s).	**9666.270**
500	150	2	1	24	2	1	1 pc(s).	**9666.280**
500	300	2	2	48	4	2	1 pc(s).	**9666.290**
500	450	2	3	72	6	3	1 pc(s).	**9666.300**
750	300	3	2	72	6	2	1 pc(s).	**9666.293**
750	450	3	3	108	9	3	1 pc(s).	**9666.303**

Connection terminal block

For connecting copper and aluminium conductors. For laminated copper bars or solid and stranded conductors with a pressed wire end ferrule.

Material:
– Duroplastic

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Also required:
– Contact hazard protection module, see page 421
– Mounting set, see page 423

Assembly instruction:
– Contact hazard protection module 9666.020 is additionally required to cover the connection terminal block

Rated current max. A	Number of poles	Connection of round conductors mm^2	Clamping area for laminated copper bars (W x H) mm	Packs of	**Model No.**
250	5-pole	16 - 150 2 x 16 - 70	17 x 21	1 pc(s).	**9666.340**
400	5-pole	50 - 240 2 x 25 - 120	25 x 21	1 pc(s).	**9666.350**

Mounting set

for connection terminal block
For attaching the connection terminal block to the frame of the ISV installation kit.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Packs of	**Model No.**
1	3	1 pc(s).	**9666.310**

Installation modules

NH fuse-switch-disconnector module

Suitable for accommodating NH fuse-switch disconnectors for mounting plate assembly. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene
– Cross member: Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Assembly instruction:

– When using the NH fuse-switch disconnector 2 x size 2 (9344.210/.230/.250) or 1 x size 3 (9344.310/.330/.350), the disconnector cross-member 9666.420 and contact hazard protection module 9666.060 should be used as the module unit

Accessories:

– Blanking cover, see page 428

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	For size	To fit Model No.	Packs of	**Model No.**
250	300	1	2	2 x size 00	9344.000/ 9344.010/ 9344.020/ 9344.030/ 9344.040/ 9344.050	1 pc(s).	**9666.380**
500	300	2	2	4 x size 00	9344.000/ 9344.010/ 9344.020/ 9344.030/ 9344.040/ 9344.050	1 pc(s).	**9666.390**
250	450	1	3	1 x size 1	9344.100/ 9344.110/ 9344.130/ 9344.150	1 pc(s).	**9666.400**
250	450	1	3	1 x size 2	9344.210/ 9344.230/ 9344.250	1 pc(s).	**9666.410**

Disconnector cross member

for NH fuse-switch disconnectors
Suitable for accommodating NH fuse-switch disconnectors for mounting plate assembly.

Material:
– Sheet steel

Supply includes:
– Assembly parts

Note:
– When using the disconnector cross-member, contact hazard protection module 9666.060 is additionally required

Also required:

– Contact hazard protection module, see page 421

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	For size	To fit Model No.	Packs of	**Model No.**
500	450	2	3	2 x size 2 1 x size 3	9344.210/ 9344.230/ 9344.250/ 9344.310/ 9344.330/ 9344.350	1 pc(s).	**9666.420**

NH slimline fuse-switch-disconnector module

For NH slimline fuse-switch disconnectors, sizes 00 to 3 (3-pole, 100/185 mm bar centre distance).

Material:
– Cover: Polystyrene
– Holder: Fibreglass-reinforced plastic

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Note:
– In order to ensure problem-free cable connection, a contact hazard protection module or an N/PE busbar module must be installed above or below the NH slimline fuse-switch disconnector modules.

Also required:
– Busbars E-Cu, see page 342

Accessories:
– Contact hazard protection module, see page 421
– Busbar module N/PE, see page 426

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	For size	To fit Model No.	For busbar mm	Bar centre distance mm	Packs of	**Model No.**
250	450	1	3	3 x size 00	9346.020/ 9346.030	40 x 10	100	1 pc(s).	**9666.570**
500	450	2	3	6 x size 00	9346.020/ 9346.030	40 x 10	100	1 pc(s).	**9666.580**
500	750	2	5	8 x size 00 4 x size 1 4 x size 2 4 x size 3	9677.XXX	60 x 10	185	1 pc(s).	**9666.550**
750	450	3	3	10 x size 00	9346.020/ 9346.030	40 x 10	100	1 pc(s).	**9666.583**
750	750	3	5	12 x size 00 6 x size 1 6 x size 2 6 x size 3	9677.XXX	60 x 10	185	1 pc(s).	**9666.560**

Circuit-breaker module

Suitable for accommodating standard moulded-case circuit-breakers from ABB, Eaton, Schneider Electric and Siemens. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene
– Support rail: Sheet steel, zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	For switchgear make (model)	Packs of	**Model No.**
250	300	1	2	ABB (T1, T2, T3) Eaton (NZM1, NZM2, BZM B1, BZM B2) Schneider Electric (NSX100, NSX160, NSX250) Siemens (3RV13 53, VL160(X), VL250, VT1, VT2)	1 pc(s).	**9666.430**
500	450	2	3	ABB (T4, T5) Eaton (NZM3) Schneider Electric (NSX400, NSX630) Siemens (3RV1.6., 3RV1.7., VL400, VL630, VT3)	1 pc(s).	**9666.440**

Installation modules

Meter mounting board module

Open module for internal measurements. Clearance depth available for meter installation 170 mm.

Design:
– Attachment rails to accommodate a meter

Material:
– Meter mounting board: Polystyrene
– Mounting rails: sheet steel, zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Note:
– The meter mounting board module does not comply with meter mounting board standard DIN 43 870/VDE 0603 and does not meet the conditions for total insulation. Use in unmetered areas only by arrangement with the local electricity supply company.

Assembly instruction:
– 1 contact hazard protection module / DIN rail-mounted device module or support rail module with 1 WU and at least 1 U is required both above and below the meter mounting board module

Accessories:
– Contact hazard protection module, see page 421
– Support rail module, see page 422
– DIN rail mounted device module, see page 422

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Packs of	**Model No.**
250	450	1	3	1 pc(s).	**9666.640**

Busbar module N/PE

For attaching busbars 12 x 5/10 mm, 20 x 5/10 and 30 x 5/10 mm for N and PE. Cover is prepared for a lead seal.

Material:
– Cover: Polystyrene
– Holder: Fibreglass-reinforced plastic
– Support rail: Sheet steel, zinc-plated

Colour:
– RAL 7035

Also required:
– Busbars E-Cu, see page 342

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Packs of	**Model No.**
250	300	1	2	1 pc(s).	**9666.590**
500	300	2	2	1 pc(s).	**9666.600**
750	300	3	2	1 pc(s).	**9666.603**

Busbar module

for fuse elements
For assembling bus-mounting fuse bases E18, E27, E33 and D-Switch as well as NH fuse-switch disconnectors, sizes 000 and 00 (3-pole, 60 mm bar centre distance).

Material:
– Cover: Polystyrene
– Holder: Fibreglass-reinforced plastic

Colour:
– RAL 7035

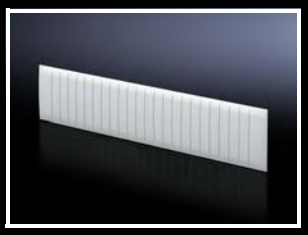
Supply includes:
– Assembly parts

Also required:
– Busbars E-Cu, see page 342

Accessories:
– Blanking cover, see page 428

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	To fit Model No.	For busbar mm	Packs of	**Model No.**
250	300	1	2	3418.010/ 3427.010/ 3433.010/ 3431.020/ 3431.030/ 3431.035/ 9340.950/ 9343.000/ 9343.020/ 9343.040	30 x 10	1 pc(s).	**9666.520**
500	300	2	2	3418.010/ 3427.010/ 3433.010/ 3431.020/ 3431.030/ 3431.035/ 9340.950	30 x 10	1 pc(s).	**9666.530**
750	300	3	2	3418.010/ 3427.010/ 3433.010/ 3431.020/ 3431.030/ 3431.035/ 9340.950	30 x 10	1 pc(s).	**9666.533**

Accessories



Cover strip

for DIN rail mounted device module
For sealing unused component cut-outs in DIN rail mounted device modules, max. 12 pitch units (12 x 18 mm), divisible every 9 mm.

Material:
– ABS

Colour:
– RAL 7035

Packs of	**Model No.**
5 pc(s).	**9666.650**

Blanking cover

for busbar module
For sealing unused cut-outs. Width: 16 – 34 mm, variable.

Material:
– Polypropylene

Colour:
– RAL 7035

Width mm	To fit Model No.	Packs of	**Model No.**
34	9666.520/ 9666.530/ 9666.533	10 pc(s).	**9666.660**

Blanking cover

for NH fuse-switch-disconnector module
For sealing unused cut-outs (size 00).

Material:
– PVC

Colour:
– RAL 7035

Width mm	To fit Model No.	Packs of	**Model No.**
117	9666.380/ 9666.390	1 pc(s).	**9666.665**

Wiring bracket

For tool-free attachment to the support rail 35 x 15 mm, for cable entry at the rear of support rail modules.

Material:
– Polyamide

Packs of	**Model No.**
10 pc(s).	**9666.670**

Depth extension frame

for NH fuse-switch disconnectors size 00
For extending the depth of the contact hazard protection cover. Allows unrestricted connection of NH fuse-switch disconnectors, size 00 (3-pole, 60 mm bar centre distance).

Material:
– Polystyrene

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Note:
– NH fuse-switch disconnectors size 00 with covers and depth extension frame cannot be used in conjunction with other equipment

Width mm	Height mm	Width units (WU) @ 250 mm	Height units (U) @ 150 mm	Packs of	Model No.
250	300	1	2	1 pc(s).	**9666.680**

Cross rail ISV

for VX
For horizontal sub-division of the support frame in the enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Width mm	Width units (WU) @ 250 mm	Packs of	Model No.
500	2	2 pc(s).	**9666.722**
750	3	2 pc(s).	**9666.723**
1000	4	2 pc(s).	**9666.724**

Mounting angles ISV

for VX
For vertical sub-division of the support frame in the enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Height mm	Height units (U) @ 150 mm	Packs of	Model No.
300	2	2 pc(s).	**9666.702**
450	3	2 pc(s).	**9666.703**
600	4	2 pc(s).	**9666.704**
750	5	2 pc(s).	**9666.705**
900	6	2 pc(s).	**9666.706**
1050	7	2 pc(s).	**9666.707**
1650	11	2 pc(s).	**9666.711**
1800	12	2 pc(s).	**9666.712**

Accessories:
– Equipment support connectors, see page 430

Mounting angles ISV

for AX
For vertical sub-division of the support frame in the enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Height mm	Height units (U) @ 150 mm	Packs of	Model No.
450	3	2 pc(s).	**9666.753**
600	4	2 pc(s).	**9666.754**
900	6	2 pc(s).	**9666.756**
1050	7	2 pc(s).	**9666.757**

Accessories

Depth stay

for installation kit ISV
For attaching the installation kit in the enclosure.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosures	For enclosure depth mm	To fit Model No.	Packs of	**Model No.**
VX	400 500 600	9666.902/ 9666.912/ 9666.922/ 9666.932	2 pc(s).	**9666.732**

Equipment support connectors

for mounting angles ISV
For connecting 2 mounting angles. Increases the stability of the frame structure.

Material:
– T-section: Aluminium

Supply includes:
– Assembly parts

To fit Model No.	Packs of	**Model No.**
9666.702/ 9666.703/ 9666.704/ 9666.705/ 9666.706/ 9666.707/ 9666.711/ 9666.712	4 pc(s).	**9666.740**

Wall-mounted distributor

Based on compact enclosure AX, see page 78

Rittal Energy and Power Solutions

End-to-end solutions from generation to consumer

Renewable energies

- Reliable energy generation and infeed, together with smart connectivity, are the key to the new energy world, where energy solutions must transcend individual sectors.
- There is a demand for solutions with global availability and internationally recognised approvals plus effective protection from a wide range of ambient conditions.
- Plant and systems engineering needs solutions to create significant competitive advantages through energy efficiency plus time and money savings.

Energy storage solutions

- Battery stores can help to stabilise the power supply in the renewable energies environment, e.g. by means of peak load management, frequency retention and an uninterruptible power supply (UPS).
- The different battery module designs available on the market necessitate a variable solution for building energy storage systems. The standardised modular system offers the required degree of variability and supports the integration of 482.6 mm (19″) battery types and other variants using rails and heavy-duty shelves.
- The range of products includes indoor, outdoor and even container solutions. Our standard products will help to reduce your planning and production costs.

Charging infrastructure

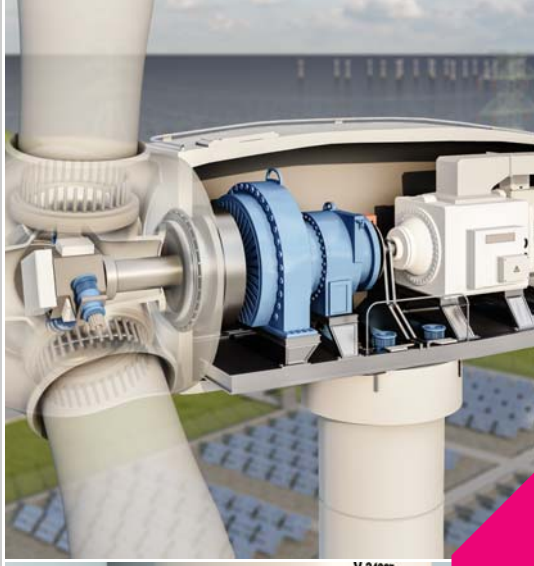
- Charging centres generally comprise a scalable number of charging pillars, the requisite backend infrastructure, plus a low-voltage main distributor.
- We usually distinguish between normal charging in the range < 50 kW (primarily AC technology), fast charging from 50 kW upwards, and high-power charging > 150 kW (DC technology).

Renewable energies

Flexible enclosure solutions for wind power and photovoltaics

Rotor hub / nacelle

- Rittal provides suitable enclosure and case systems for all areas of wind farms, based on impressive modular technology.
- Control cabinets in the nacelle and pitch enclosure directly in the rotor hub, to reliably withstand even the highest dynamic forces



Tower

- The components we use are modular, efficient and low-maintenance, for fast (and in some cases, customised) configuration.
- Complete system solutions for powerful frequency converters including climate control

Central inverter

- There is a growing use of inverter systems under difficult ambient conditions.
- Smart standard solutions offer a high level of physical protection for the enclosure, equipped with power distributor and climate control.

Solar panel

- Compact enclosures in the AX and KX series are ideal for housing the electronics for solar tracking systems or as a general junction box. The small and compact enclosures offer simpler, faster assembly coupled with greater flexibility and security.

Renewable energies

Application			Enclosure	
System solution			Rittal enclosure solutions provide optimum protection for your components. ■ Protection category-tested enclosure technology to IP, IK, RC ■ Accredited in-house laboratory ■ 3-phase surface treatment for maximum corrosion protection ■ Choice of materials depending on the climate and requirement profile: Aluminium, stainless steel, sheet steel ■ EMC protection ■ Static load capacity up to 14,000 N	
		Requirements		
Wind energy	Rotor hub	■ Dynamic loads ■ Walkable ■ Easy access	■ Small and compact enclosures, material: sheet steel, stainless steel, from page 43	
	Nacelle	■ Dynamic loads ■ Thermal management ■ Prevent condensation	■ Large enclosure, material: Sheet steel, from page 116	
	Tower	■ Confined space ■ Thermal management	■ Large enclosure, material: Sheet steel, from page 116	
Photovoltaics	Central inverter	■ Weather influences ■ Environmental conditions	■ Large outdoor enclosure, material: Stainless steel, aluminium, from page 268	
	Solar panel		■ Small enclosure/PK, material: Plastic, sheet steel, from page 43	

	Climate control	Power distribution	Accessories	Quality management
	Efficient, innovative climate control solutions provide reliable protection for your power electronics. ■ Fans, cooling units and heaters for temperature control of the built-in equipment. ■ Individual design of the required climate control using our Therm software	Rittal offers a modular system for demand-based power distribution (from page 277). ■ Distribution and protection of the power supply focussing on standardisation and availability ■ Planning and design of low-voltage switchgear to IEC 61 439 with design certificate using Power Engineering software		Rittal will support you from day one: ■ Project planning of technical specifications ■ Prototype assembly, testing and simulations ■ Manufacturing and assembly ■ Warehousing service and on-time delivery ■ Your own personal point of contact throughout the entire project
	■ Fan-and-filer units with protection category IP 54 as standard. More products from page 456	■ Modular system for low-voltage switchgear with design verification to IEC 61 439 up to 1600 A for DC and AC applications, from page 446 ■ Rated current < 125 A RiLine Compact, from page 285 ■ Rated current < 250 A Mini-PLS, from page 294 ■ Rated current < 1600 A RiLine PLS, from page 300 ■ Rated current < 6300 A VX25 Ri4Power, from page 314	■ Earthquake kit, from page 1032 ■ EMC, from page 1028 ■ Monitoring, from page 799 ■ IoT interface, from page 554 ■ Base/plinths, from page 880 ■ Lock systems, from page 933 ■ Rain canopies, from page 958 ■ Interior installation, mounting plates, bar systems, from page 970 ■ Industry-specific accessories available on request	Accredited Rittal test laboratory ■ Simulation of climatic conditions ■ Dynamic and static load tests ■ 3D measurement ■ Corrosion testing ■ Electrical safety and function tests ■ Software tests ■ Performance testing of chillers, cooling units and heat exchangers
	■ Fan-and-filter units and Blue e+ (energy-efficient) More products from page 456			
	■ Roof-mounted cooling unit; doors or side panels and escape routes are kept free More products from page 498			
	■ TopTherm Blue e wall-mounted cooling unit, NEMA 4X, also as IIoT bundle ■ Outdoor cooling unit, from page 496 More products from page 477			
	■ Fan-and-filter units ■ Thermoelectric coolers More products from page 456			

Energy Storage Solutions (ESS)

The perfect system solution for every storage task

Heavy-duty shelves for loads up to 100 kg per level

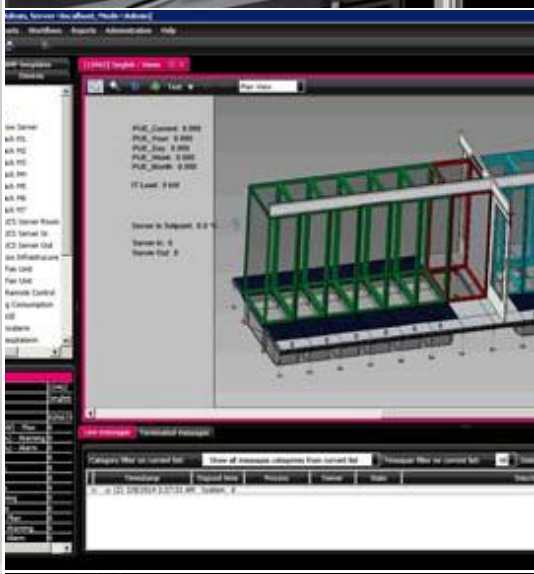
- Rittal's modular product system includes standard components for flexible assembly of an infrastructure with a battery energy storage system (BESS).
- Battery types not compliant with the 482.6 mm (19″) standard may be integrated, e.g. using heavy-duty shelves with a load-bearing capacity of up to 100 kg.

Integration with the 482.6 mm (19″) rack mounting system

- The technology behind the 482.6 mm (19″) standard is exceptionally assembly-friendly and supports simple integration of these battery types.
- For larger battery capacities, Rittal enclosures may be bayed.

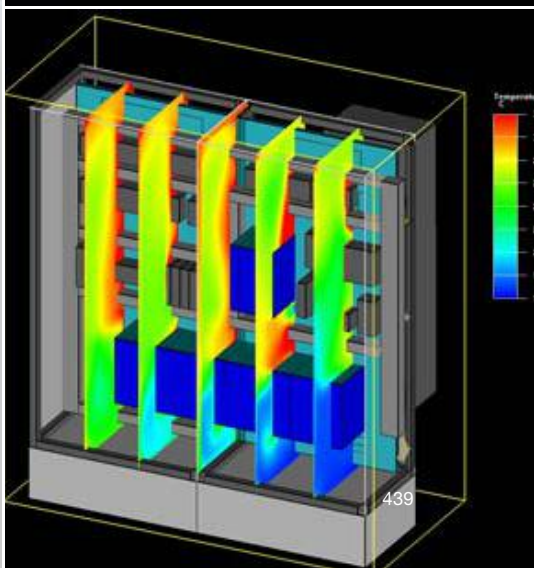
Efficient monitoring

- For seamless monitoring of performance and risk of failure, ESS may be combined with CMC and RiZone for the monitoring system.
- Web connectivity is provided via the Rittal IoT interface.



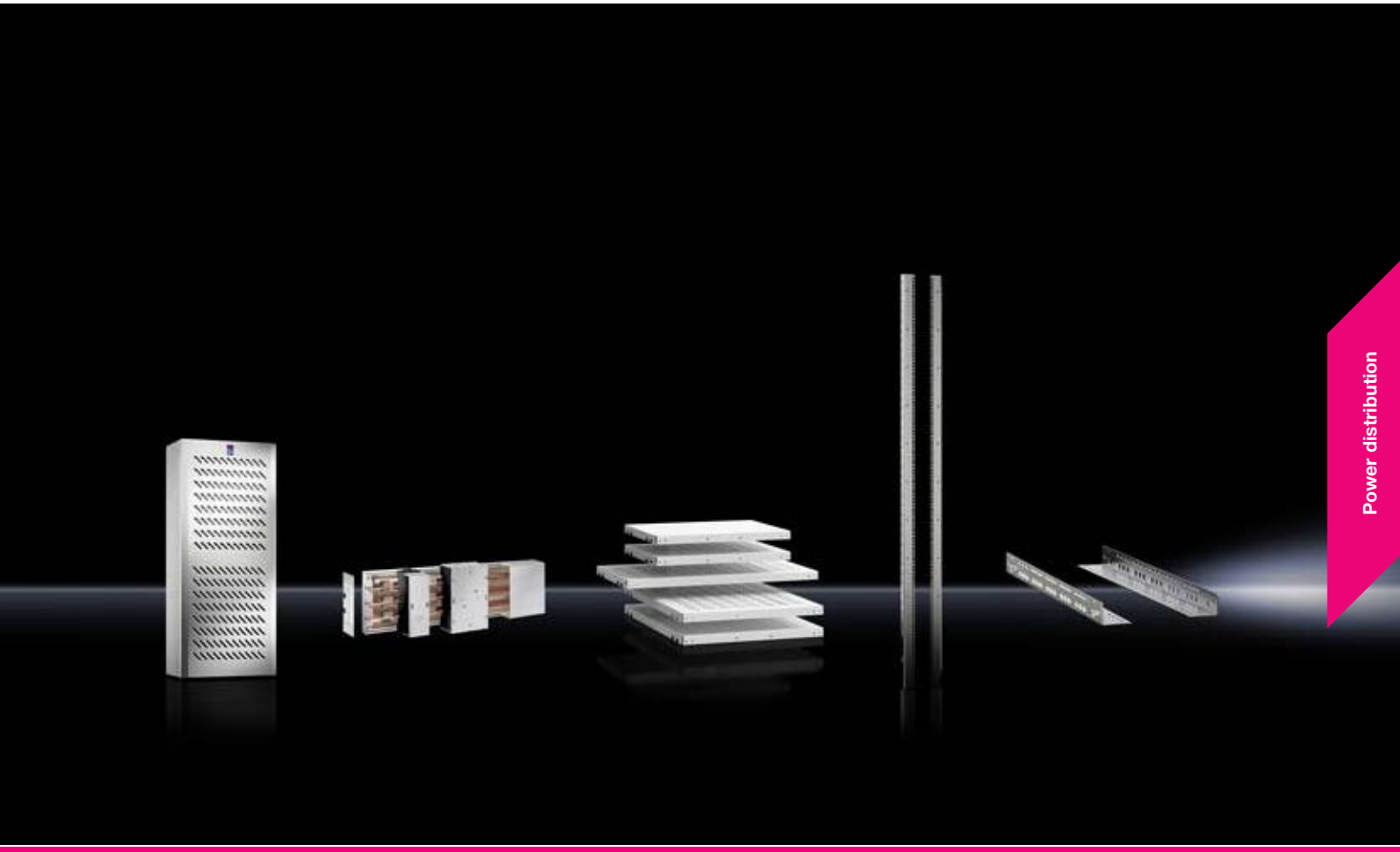
Efficiency in plant design

- Lithium ion batteries have a specific thermal operating window which must be observed for safety reasons. Depending on the installation site and use of the system, therefore, a range of design features from active ventilation through to climate control may be required.
- Rittal offers FEM and CFD analyses to represent your individual project in its specific situation, so that you can gauge which concepts are viable and which are not.



Energy storage solutions

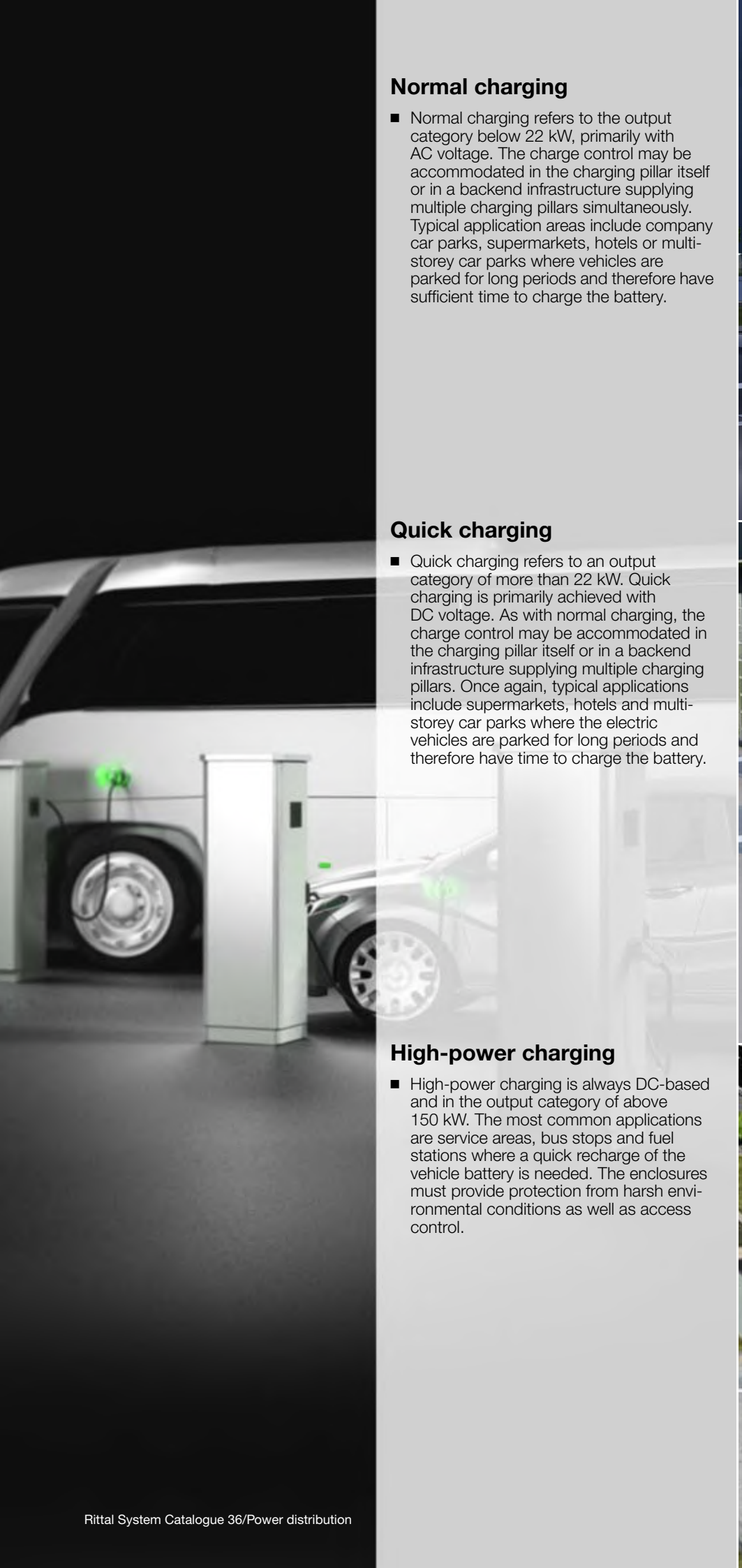
		Enclosures			Climate control		
Type		**VX25 rack system**	**Outdoor enclosure system**	**Container**	**Wall-mounted cooling unit Blue e+**	**Roof-mounted cooling unit Blue e+**	
System solution		The modular VX25 enclosure system is available in a range of sizes, both as a standalone rack and as a bayable solution. Our extensive range of accessories supports a broad range of solutions. With a weight capacity of 1500 kg, all standard battery types may be integrated.	Identical system platform in the outdoor sector as for IE or IT enclosure systems. Additionally with weather canopy, with projection on all sides. The double-walled design reduces the influence of sunlight. The open frame structure offers installation benefits. Also available as a baying variant.	On a project-specific basis, we offer 20ft and 40ft containers with up to 18/36 bays. Where required, these may be designed with suitable climate control.	Our energy-efficient Blue e+ wall-mounted cooling units ensure the correct temperature inside the enclosure. The outputs range from 1.6 to 6 kW. Their unique multi-voltage capability makes them suitable for international use. The cooling units are IIoT-compatible and support modern condition monitoring.	Our energy-efficient Blue e+ roof-mounted cooling units ensure the correct temperature inside the enclosure. The output is 1.3 kW. Their unique multi-voltage capability makes them suitable for international use. The cooling units are IIoT-compatible and support modern condition monitoring.	
Approvals		CSA, DNV-GL, UL and C-UL	–		CE, TÜV-tested safety, UL/cUL, UL/cUL-FTTA, EAC	CE, TÜV-tested safety, UR/cUR, EAC	
482.6 mm (19″) configuration	Indoor	■	–	■	■	■	
	Outdoor	–	■	–	–	–	
Heavy-duty shelf	Indoor	■	–	■	■	■	
	Outdoor	–	■	–	–	–	
From page		116	263	On request	486	504	



	Climate control	Power distribution	Interior installation	Accessories	
	Outdoor cooling unit	**Busbars**	**Component shelf for frame attachment**	**Adaptor section, 482.6 mm (19″)**	**Slide rails, static installation for VX IT**
	Useful cooling output 1500 W, temperature control via e+ controller on the rear of the cooling unit. For universal attachment to outdoor enclosures for external, partial internal and full internal mounting. Average 75% energy savings thanks to speed-regulated components and heat pipe technology. Multi-voltage capability for global use. In conjunction with the IoT interface, the cooling unit can be networked and digitalised	Flexible power distribution solutions, highly adaptable up to 6300 A. Project planning is child's play with the user-friendly Power Engineering software.	Mounting bolts / mounting rails may be installed on a 25 mm pitch pattern pattern in the enclosure depth. For frame attachment, for installation in enclosures without 482.6 mm (19″) accommodation. Load capacity up to 100 kg.	The adaptor mounting angles are available for enclosure heights 1600 mm (33 U), 1800 mm (38 U) and 2000 mm (42 U). The 482.6 mm (19″) measurement applies when mounting on the frame of 600 mm wide enclosures. Depth-offset installation in 600 mm wide enclosures is supported using punched sections with mounting flanges, 18 x 64 mm.	For mounting between the front and rear mounting levels. To support heavy installed equipment. Side system punchings for mounting accessories and cooling components that expel to the side. Load capacity up to 80 kg static load.
	International approvals (cULus Listed, cULus FTTA, CE and EAC)	–	–	–	–
	–	■	–	■	■
	■	■	–	■	■
	–	■	■	–	–
	■	■	■	–	–
	497	281	1006	1080	1086

Charging infrastructure

System solutions to meet the challenges of a charging infrastructure



Normal charging

- Normal charging refers to the output category below 22 kW, primarily with AC voltage. The charge control may be accommodated in the charging pillar itself or in a backend infrastructure supplying multiple charging pillars simultaneously. Typical application areas include company car parks, supermarkets, hotels or multi-storey car parks where vehicles are parked for long periods and therefore have sufficient time to charge the battery.

Quick charging

- Quick charging refers to an output category of more than 22 kW. Quick charging is primarily achieved with DC voltage. As with normal charging, the charge control may be accommodated in the charging pillar itself or in a backend infrastructure supplying multiple charging pillars. Once again, typical applications include supermarkets, hotels and multi-storey car parks where the electric vehicles are parked for long periods and therefore have time to charge the battery.

High-power charging

- High-power charging is always DC-based and in the output category of above 150 kW. The most common applications are service areas, bus stops and fuel stations where a quick recharge of the vehicle battery is needed. The enclosures must provide protection from harsh environmental conditions as well as access control.

Charging infrastructure

Application		Enclosures		Accessories
System solution		Rittal enclosure solutions provide optimum protection for your components. ■ Protection category-tested enclosure technology to IP, IK, RC ■ Accredited in-house laboratory ■ 3-phase surface treatment for maximum corrosion protection ■ Choice of materials depending on the climate and requirement profile: Aluminium, stainless steel, sheet steel ■ EMC protection ■ Static load capacity up to 14,000 N		
	Construction	Front end/charging pillar	Backend/infrastructure	
Normal charging ■ Company car park ■ Supermarket ■ Multi-storey car park ■ Hotel ■ Restaurant	AC 1 charging point (< 22 kW)	■ Compact enclosures AX, from page 84 ■ Stainless steel (HD), from page 217		■ Base/plinths, from page 880 ■ Lock systems, from page 933 ■ Rain canopies, from page 958 ■ Interior installation, mounting plates, 482.6 mm (19') frame, bar systems, from page 970 ■ System light, from page 1014 ■ EMC, from page 1028 ■ Cable entry/cable management, from page 1044
	AC n charging points (< 22 kW)	■ Stainless steel (HD), from page 217	■ Toptec, from page 270 ■ New Basic, from page 268 ■ Baying systems VX25, from page 116	
Quick charging ■ Supermarket ■ Multi-storey car park ■ Hotel ■ Restaurant	DC 1 charging point	■ Compact enclosures, from page 84 ■ Stainless steel (HD), from page 217 ■ Toptec, from page 270 ■ New Basic, from page 268 ■ Baying systems VX25, from page 116		
	DC n charging points	■ Compact enclosures AX, ■ from page 84 ■ Toptec, from page 270 ■ New Basic, from page 268 ■ Baying systems VX25, from page 116	■ Toptec, from page 270 ■ New Basic, from page 268 ■ Baying systems VX25, from page 116	
High-power charging ■ Service area ■ Bus stop	DC-HPC (> 150 kW)	■ Compact enclosures AX, from page 84 ■ Toptec, from page 270 ■ New Basic, from page 268 ■ Baying systems VX25, from page 116	■ Toptec, from page 270 ■ New Basic, from page 268 ■ Baying systems VX25, from page 116	

Other enclosure variants available on request (emobility@rittal.de)

	Climate control	Power distribution
	A charging centre may require various forms of climate control. ■ Fans, cooling units and heaters for temperature control of the built-in equipment. ■ Chillers for water cooling of the charging cable in the HPC sector or components with liquid cooling inside the enclosure ■ Individual design of the required climate control using Therm software	Rittal offers a modular system for demand-based power distribution. ■ Distribution and protection of the power supply focussing on standardisation and availability ■ Power Engineering software is used to plan and design low-voltage switchgear to IEC 61 439 with design verification, from page 446
	■ Heaters, from page 530 ■ Passive cooling: TopTherm fan-and-filter units, from page 456 ■ Protective canopies, from page 958 ■ Active: Thermoelectric coolers, from page 474 ■ Cooling units, from page 473 ■ Liquid cooling, from page 509 ■ Outdoor cooling unit, from page 496 ■ Accessories: IoT interface, from page 554	■ Rated current < 125 A RiLine Compact, from page 282 ■ Rated current < 250 A Mini-PLS, from page 294 ■ Rated current < 1600 A RiLine PLS, from page 299 ■ Rated current < 6300 A VX25 Ri4Power, from page 361

Configurators/tools/CAD data

Power distribution

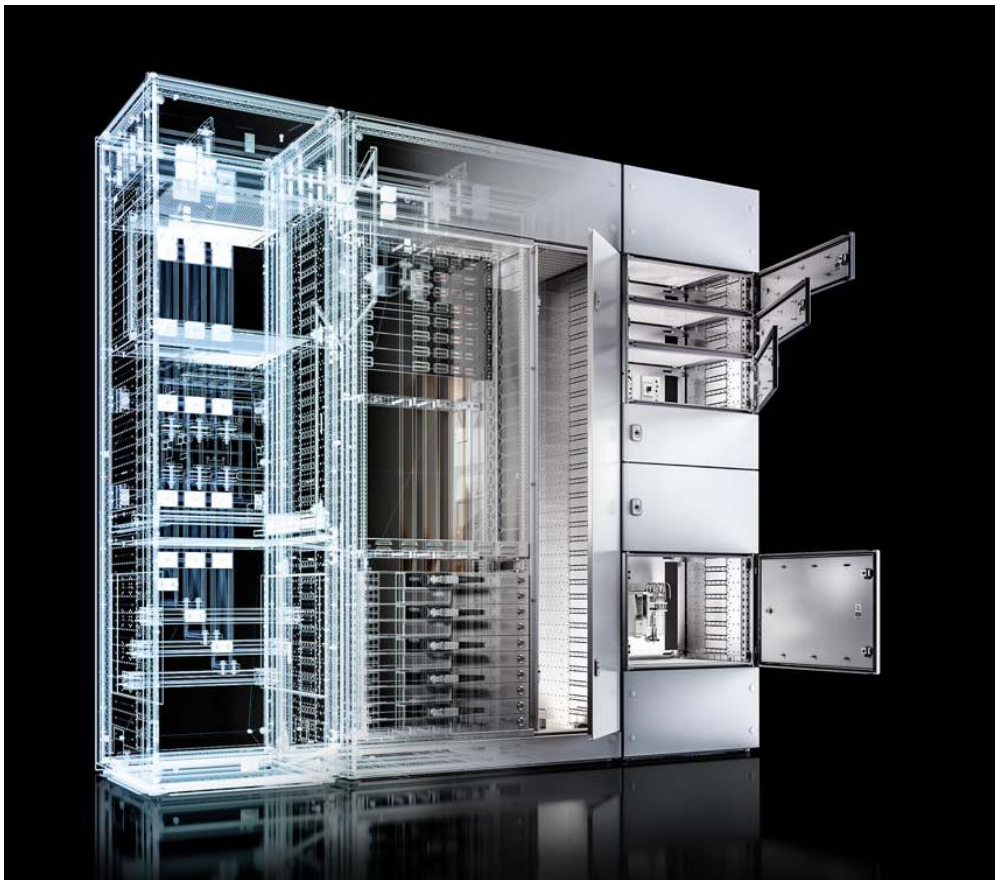
The VX25 Power Engineering planning software sets brand new standards when planning low-voltage switchgear. The Web-based tool guides users quickly and efficiently through the planning process in simple, logical steps.

VX25 Power Engineering

Efficient planning of low-voltage switchgear
From plant configuration, to calculation of the copper bars, through to generation of the design verification to IEC 61 439.

Benefits:
- The web-based application ensures that planning data is always up-to-date
- Parts list creation and assembly based on a specific set of rules
- Automatic calculation and documentation of the copper busbars
- Generation of a design verification to IEC 61 439

Note:
- Download free at www.rittal.com/software



Rittal Automation Systems

High productivity levels and consistent optimisation of all process steps, from page 561

Rittal – The System.

Faster – better – everywhere.

ENCLOSURES | POWER DISTRIBUTION | CLIMATE CONTROL

FRIEDHELM LOH GROUP

CLIMATE CONTROL

Overview of climate control type 450

Cooling with ambient air

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Roof-mounted fans 464
Rack-mounted fans/tangential fans 466
Air/air heat exchangers 469

Cooling units

Thermoelectric coolers 474
Wall-mounted cooling units 475
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Liquid cooling

Air/water heat exchangers 510
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Chillers 519

Enclosure heaters

Enclosure heaters 530

Climate control accessories

Filter technology 533
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Water distribution 543
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Service

Global availability 1134
Services 1140

BLUEcoMPETENCE
Alliance Member
Partner of the Engineering Industry Sustainability Initiative

UL listing under category FTTA
Additional approval under the category "environmental-rated accessories for enclosures (CCN: FTTA)" is particularly beneficial for users.

This ensures that the type rating of the application (enclosure protection category) is retained even if the enclosure has a mounting cut-out for installation of a climate control component.

This is a clear benefit which facilitates use in the 508A zone and eliminates potential discussions about reducing the type rating.

Type of climate control	Cooling with ambient air	Cooling units	
	Ambient air cooling units are ideally suited for dissipating heat loads exceptionally cost-effectively. The pre-requisite for this is that the ambient air must be relatively clean and at a temperature below the required enclosure internal temperature.	Cooling units keep the enclosure internal temperature at a constant level, which is independent of the ambient temperature. The air routing meets individual requirements. Two separate circuits prevent the ingress of dust into the enclosure.	
Air throughput, unimpeded airflow m^3/h	20 – 1069	–	
Specific thermal output W/K	17.5 – 90	–	
Total cooling output W	–	80 – 5800	
Continuous thermal output W	–	–	
Product characteristics	Exceptionally energy-efficient, barely discernible loss of space within and outside of the enclosure, and a high protection category of IP 54 as standard.	The Rittal Blue e+ series is the world's most efficient cooling unit. With heat pipe technology as standard and speed-controlled components, average energy savings of 75% can be achieved.	
From page	453	473	

	Cooling with water	Enclosure heaters	Climate control accessories
	Efficient liquid cooling may be used in all situations where a high cooling load is required, such as process and machine cooling or when dissipating heat loss from enclosures via air/water heat exchangers. Liquid cooling allows you to achieve spatial separation between cooling production and process cooling.	Condensation poses a particular risk for control electronics, especially with outdoor siting. A range of output categories ensures that the correct thermal output is always available.	Perfectly coordinated components allow you to customise the climate control to your specific requirements, whether you need targeted air routing, precise control of the equipment or appropriate consumables.
	–	–	–
	–	–	–
	300 – 25000	–	–
	–	10 – 800	–
	Energy savings of up to 70% can be achieved with the Blue e+ generation of chillers. They ensure efficient cooling of liquid media with a high degree of control accuracy thanks to innovative DC inverter technology.	The innovative profile geometry means that heat is distributed evenly inside the enclosure and cold spots are prevented. The tool-free push-in connection technology speeds up the wiring process considerably.	With innovative accessories, the efficiency and reliability of climate control components can be additionally enhanced with monitoring, control and individual air routing.
	509	530	533

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Cooling with ambient air

TopTherm fan-and-filter units

Product advantages 454
TopTherm fan-and-filter units ..... 20 – 55 m³/h 456
TopTherm fan-and-filter units ..... 105 – 180 m³/h 457
TopTherm fan-and-filter units ..... 230 – 550 m³/h 457
TopTherm fan-and-filter units ..... 700 m³/h 458
TopTherm fan-and-filter units, EMC ..... 20 – 180 m³/h 459
TopTherm fan-and-filter units, EMC ..... 230 – 900 m³/h 460
TopTherm fan-and-filter units, with EC technology ..... 55 – 230 m³/h 461
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TopTherm fan-and-filter units, air throughput and protection category 463

Roof-mounted fans

Roof-mounted fans, roof ventilation ..... 500 – 965 m³/h 464
Roof-mounted fans with EC technology ..... 1069 m³/h 465

Rack-mounted climate control

Rack-mounted fans for 482.6 mm (19″) ..... 320 – 480 m³/h 466
Vario rack-mounted fans for 482.6 mm (19″) ..... 320 – 480 m³/h 467
Tangential fans for 482.6 mm (19″) ..... 320 m³/h 468

Air/air heat exchangers

TopTherm, wall-mounted with controller ..... 17.5 – 90 W/K 469
Roof-mounted 66 W/K 470

Fan-and-filter units and roof-mounted fans

Efficient climate control with ambient air

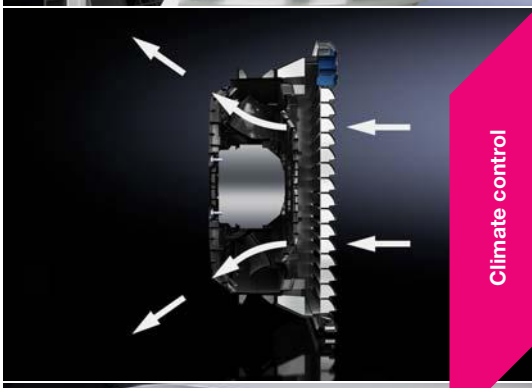
TopTherm fan-and-filter units

Tool-free assembly

- Straightforward assembly, maintenance and exchange with no need for tools of any kind
- The air flow direction is easily reversed by rotating the fan module
- The electrical connection is individually positionable using a screwless spring terminal; no tools required
- Louvred grille latch mechanism for fast filter mat replacement without tools

Efficient technology

- New diagonal fan technology for greater pressure stability and constant air throughput in its installed state, even with a contaminated filter mat
- Minimum installation depth
- Air flows in a diagonal direction from the fan, for a more even air distribution inside the enclosure
- Extended service life of filter mats means longer maintenance intervals
- Fan with smart, efficient EC technology



Roof-mounted fans

Simple to fit and maintain

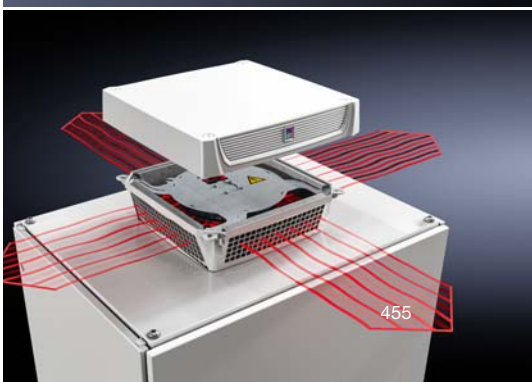
- Innovative clamping attachment supports flexible locking optionally from the outside or inside
- Connector terminal for easy electrical connection
- Good accessibility permits fast filter mat changes

High protection category

- IP 55 as standard, thanks to a sophisticated labyrinth system and high-quality foamed-in seal

High efficiency

- At an air throughput of 1,000 m^3/h, smart EC fans ensure maximum energy efficiency
- Integral interface for linear speed control and fan monitoring



TopTherm fan-and-filter units

Air throughputs incl. outlet filter and protection categories Page 463 **Accessories for climate control** Page 533 **Therm software** Page 558

Fan-and-filter units with diagonal fan technology have superior pressure stability and ensure a more constant air throughput. The diagonal direction of outflow ensures more even heat dissipation from the enclosure.

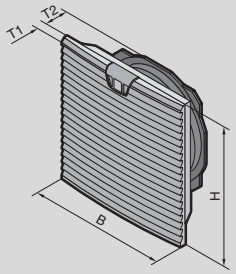
Colour:
- RAL 7035
- Optionally available in RAL 9005

Supply includes:
- Complete unit ready to install, including filter mat

Note:
- With the fan-and-filter unit 3237.XXX, electrical connection is made via two single wires on the unit. For all other fan-and-filter units, a screwless spring terminal is used.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Air throughput 20 – 55 m^3/h

Model No.	Packs of	**3237.100**	**3237.110**	**3237.124**	**3238.100**	**3238.110**	**3238.124**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	24 (DC)	
Air throughput, unimpeded air flow m^3/h		**20 / 25**	**20 / 25**	**20**	**55 / 66**	**55 / 66**	**55**	
Rated current A		0.065 / 0.052	0.12 / 0.1	0.125	0.12 / 0.11	0.24 / 0.22	0.24	
Power consumption W		11 / 9	11 / 9	3	19 / 18	19 / 18	5.5	
Width (B) mm		116.5	116.5	116.5	148.5	148.5	148.5	
Height (H) mm		116.5	116.5	116.5	148.5	148.5	148.5	
Depth (T1) mm		16	16	16	16	16	16	
Max. installation depth (T2) mm		43	43	43	58.5	58.5	58.5	
Required mounting cut-out (BxH) mm		92 x 92	92 x 92	92 x 92	124 x 124	124 x 124	124 x 124	
Fan		Axial, shaded pole motor	Axial, shaded pole motor	Axial, DC motor	Axial, shaded pole motor	Axial, shaded pole motor	Axial, DC motor	
Operating temperature range		-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		38 / 43	38 / 43	38	46 / 49	46 / 49	46	
Service life of fans (L10, 40 °C) h		55000 / 60000	55000 / 60000	70000	68200 / 68200	68200 / 68200	95500	
Weight kg		0.46	0.48	0.3	0.8	0.8	0.54	
Accessories								
Outlet filter	1 pc(s).	3237.200	3237.200	3237.200	3238.200	3238.200	3238.200	537
Spare filter mat		see page	see page	see page	see page	see page	see page	535
Fine filter mat	5 pc(s).	–	–	–	3238.055	3238.055	3238.055	536
Hose-proof hood	1 pc(s).	3237.080	3237.080	3237.080	3238.080	3238.080	3238.080	538
Blanking cover	2 pc(s).	3237.020	3237.020	3237.020	3238.020	3238.020	3238.020	538
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	546

Air throughput 105 – 180 m³/h

Model No.	Packs of	3239.100	3239.110	3239.124	3240.100	3240.110	3240.124	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	24 (DC)	
Air throughput, unimpeded air flow m³/h		**105 / 120**	**105 / 120**	**105**	**180 / 160**	**180 / 160**	**180**	
Rated current A		0.12 / 0.11	0.24 / 0.22	0.23	0.21 / 0.19	0.42 / 0.38	0.43	
Power consumption W		19 / 18	19 / 18	5.5	35 / 34	35 / 34	10	
Width (B) mm		204	204	204	255	255	255	
Height (H) mm		204	204	204	255	255	255	
Depth (T1) mm		24	24	24	25	25	25	
Max. installation depth (T2) mm		90	90	90	107	107	107	
Required mounting cut-out (BxH) mm		177 x 177	177 x 177	177 x 177	224 x 224	224 x 224	224 x 224	
Fan		Axial, shaded pole motor	Axial, shaded pole motor	Axial, DC motor	Diagonal, shaded pole motor	Diagonal, shaded pole motor	Diagonal, DC motor	
Operating temperature range		-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		46 / 49	46 / 49	46	51 / 46	51 / 46	51	
Service life of fans (L10, 40 °C) h		68200 / 68200	68200 / 68200	95500	72000 / 76000	72000 / 76000	75000	
Weight kg		1.04	1.04	0.78	2.26	2.08	1.88	
Accessories								
Outlet filter	1 pc(s).	3239.200	3239.200	3239.200	3240.200	3240.200	3240.200	537
Spare filter mat		see page	see page	see page	see page	see page	see page	535
Fine filter mat	5 pc(s).	3181.100	3181.100	3181.100	3182.100	3182.100	3182.100	536
Hose-proof hood	1 pc(s).	3239.080	3239.080	3239.080	3240.080	3240.080	3240.080	538
Blanking cover	2 pc(s).	3239.020	3239.020	3239.020	3240.020	3240.020	3240.020	538
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	546

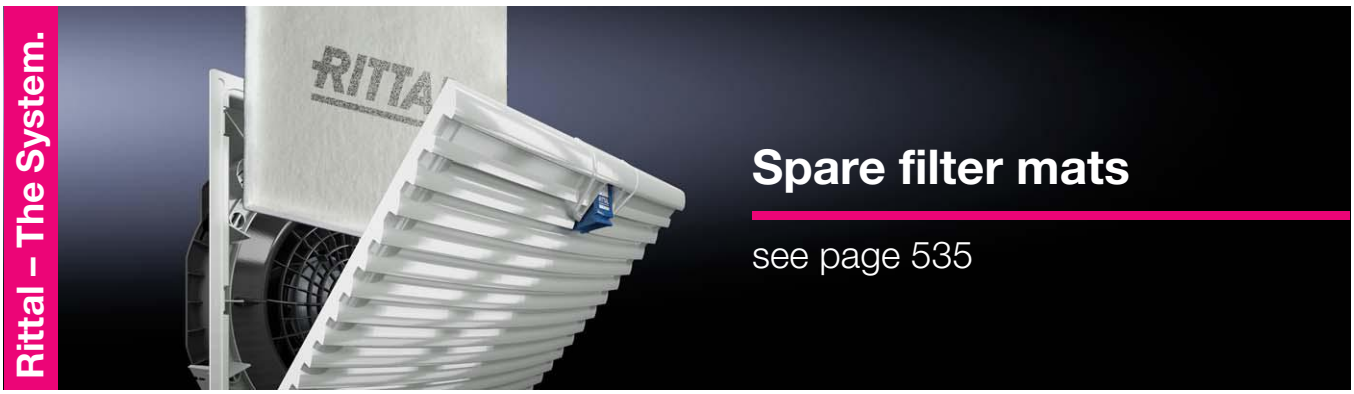
Air throughput 230 – 550 m³/h

Model No.	Packs of	3241.100	3241.110	3241.124	3243.100	3243.110	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	24 (DC)	230, 1~, 50/60	115, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**230 / 250**	**230 / 250**	**230**	**550 / 600**	**550 / 600**	
Rated current A		0.26 / 0.24	0.52 / 0.48	0.8	0.37 / 0.39	0.78 / 0.8	
Power consumption W		40 / 42	40 / 42	19	70 / 87	75 / 90	
Width (B) mm		255	255	255	323	323	
Height (H) mm		255	255	255	323	323	
Depth (T1) mm		25	25	25	25	25	
Max. installation depth (T2) mm		107	107	107	118.5	118.5	
Required mounting cut-out (BxH) mm		224 x 224	224 x 224	224 x 224	292 x 292	292 x 292	
Fan		Diagonal, shaded pole motor	Diagonal, shaded pole motor	Diagonal, DC motor	Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	
Operating temperature range		-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		54 / 56	54 / 56	54	59 / 61	59 / 61	
Service life of fans (L10, 40 °C) h		61000 / 60000	61000 / 60000	75000	65000 / 61000	61000 / 59000	
Weight kg		2.24	2.26	2.04	3.58	3.58	
Accessories							
Outlet filter	1 pc(s).	3240.200	3240.200	3240.200	3243.200	3243.200	537
Spare filter mat		see page	see page	see page	see page	see page	535
Fine filter mat	5 pc(s).	3182.100	3182.100	3182.100	3183.100	3183.100	536
Hose-proof hood	1 pc(s).	3240.080	3240.080	3240.080	3243.080	3243.080	538
Blanking cover	2 pc(s).	3240.020	3240.020	3240.020	3243.020	3243.020	538
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	546

TopTherm fan-and-filter units

Air throughput 700 m³/h

Model No.	Packs of	3244.100	3244.110	3244.140	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50/60 460, 3~, 60	
Air throughput, unimpeded air flow m³/h		**700 / 770**	**700 / 770**	**700 / 770**	
Rated current A		0.43 / 0.6	0.9 / 1.25	0.17 / 0.21	
Power consumption W		95 / 135	100 / 145	93 / 140	
Width (B) mm		323	323	323	
Height (H) mm		323	323	323	
Depth (T1) mm		25	25	25	
Max. installation depth (T2) mm		130.5	130.5	130.5	
Required mounting cut-out (BxH) mm		292 x 292	292 x 292	292 x 292	
Fan		Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	Diagonal, three-phase motor	
Operating temperature range		-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		65 / 66	65 / 66	67 / 70	
Service life of fans (L10, 40 °C) h		66000 / 64000	66000 / 62000	66000 / 62000	
Weight kg		4.3	4.3	4.1	
Accessories					
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	537
Spare filter mat		see page	see page	see page	535
Fine filter mat	5 pc(s).	3183.100	3183.100	3183.100	536
Hose-proof hood	1 pc(s).	3243.080	3243.080	3243.080	538
Blanking cover	2 pc(s).	3243.020	3243.020	3243.020	538
Thermostat	1 pc(s).	3110.000	3110.000	–	547
Hygrostat	1 pc(s).	3118.000	3118.000	–	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	–	546



Air throughputs incl. outlet filter and protection categories Page 463 **Accessories for climate control** Page 533 **Therm software** Page 558

EMC fan-and-filter units offer a high shielding/attenuation effect and meet requirement category 2 to EN 61587-3.

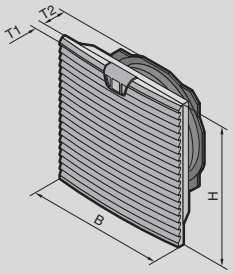
Colour:
– RAL 7035

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– To improve energy efficiency and extend the service life of the devices, we recommend the use of thermostats or temperature displays

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Air throughput 20 – 180 m³/h, EMC

Model No.	Packs of	**3237.600**	**3238.600**	**3239.600**	**3240.600**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**20 / 25**	**55 / 66**	**105 / 120**	**180 / 160**	
Rated current A		0.065 / 0.052	0.12 / 0.11	0.12 / 0.11	0.21 / 0.19	
Power consumption W		11 / 9	19 / 18	19 / 18	35 / 34	
Width (B) mm		116.5	148.5	204	255	
Height (H) mm		116.5	148.5	204	255	
Depth (T1) mm		16	16	24	25	
Max. installation depth (T2) mm		43	58.5	90	107	
Required mounting cut-out (BxH) mm		92 x 92	124 x 124	177 x 177	224 x 224	
Fan		Axial, shaded pole motor	Axial, shaded pole motor	Axial, shaded pole motor	Diagonal, shaded pole motor	
Operating temperature range		-15 °C...+55 °C	-15 °C...+55 °C	-15 °C...+55 °C	-30 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	
Noise level dB(A)		38 / 43	46 / 49	46 / 49	51 / 46	
Service life of fans (L10, 40 °C) h		55000 / 60000	68200 / 68200	68200 / 68200	72000 / 76000	
Weight kg		0.49	2.0	1.2	2.12	
Accessories						
Outlet filter	1 pc(s).	3237.060	3238.060	3239.060	3240.060	537
Spare filter mat	5 pc(s).	3237.066	3238.066	3239.066	3240.066	535
Fine filter mat	5 pc(s).	–	3238.055	3181.100	3182.100	536
Hose-proof hood	1 pc(s).	3237.080	3238.080	3239.080	3240.080	538
Speed control	1 pc(s).	3120.200	3120.200	3120.200	3120.200	549
EC speed control – Control unit for EC fan		–	–	–	–	
EC speed control – Sensor for speed control		–	–	–	–	
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	546

TopTherm fan-and-filter units

Air throughput 230 – 900 m^3/h, EMC

Model No.	Packs of	**3241.600**	**3243.600**	**3244.600**	**3245.600**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	200 - 240, 1~, 50/60	
Air throughput, unimpeded air flow m^3/h		**230 / 250**	**550 / 600**	**700 / 770**	**900**	
Rated current A		0.26 / 0.24	0.37 / 0.39	0.43 / 0.6	1.33 / 1.33	
Power consumption W		40 / 42	70 / 87	95 / 135	165 / 165	
Width (B) mm		255	323	323	323	
Height (H) mm		255	323	323	323	
Depth (T1) mm		25	25	25	25	
Max. installation depth (T2) mm		107	118.5	130.5	130.5	
Required mounting cut-out (BxH) mm		224 x 224	292 x 292	292 x 292	292 x 292	
Fan		Diagonal, shaded pole motor	Diagonal, 1~ capacitor motor	Diagonal, 1~ capacitor motor	Diagonal, EC motor	
Operating temperature range		-30 °C...+55 °C	-30 °C...+55 °C	-30 °C...+55 °C	-25 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-30 °C...+70 °C	-25 °C...+70 °C	
Noise level dB(A)		54 / 56	59 / 61	65 / 66	72	
Service life of fans (L10, 40 °C) h		61000 / 60000	65000 / 61000	66000 / 64000	59000	
Weight kg		2.12	3.56	4.28	3.5	
Accessories						
Outlet filter	1 pc(s).	3240.060	3243.060	3243.060	3243.060	537
Spare filter mat	5 pc(s).	3240.066	3243.066	3243.066	3243.066	535
Fine filter mat	5 pc(s).	3182.100	3183.100	3183.100	3183.100	536
Hose-proof hood	1 pc(s).	3240.080	3243.080	3243.080	3245.080	538
Speed control	1 pc(s).	3120.200	3120.200	3120.200	–	549
EC speed control – Control unit for EC fan	1 pc(s).	–	–	–	3235.440	548
EC speed control – Sensor for speed control	1 pc(s).	–	–	–	3235.450	548
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	546

Rittal – The System.

EC speed control

see page 548

Air throughputs incl. outlet filter and protection categories Page 463 **Accessories for climate control** Page 533 **Therm software** Page 558

Energy-efficient version of the TopTherm fan-and-filter units with diagonal fan technology. Fans 3240.500 to 3245.510 may be controlled and monitored. The fan may be activated via the control interface with tacho signal output integrated as standard, and monitoring of the fan speed and function is supported.

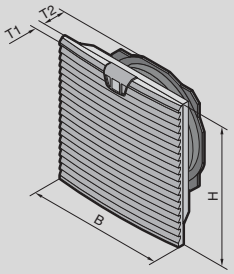
Colour:
– RAL 7035

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– For even more efficient operation or for monitoring the fan-and-filter units, we recommend the use of an EC speed control for EC fan-and-filter units

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Air throughput 55 – 230 m³/h, with EC technology

Model No.	Packs of	**3238.500**	**3239.500**	**3240.500**	**3241.500**	Page
Control interface		–	–	■	■	
Rated operating voltage V, ~, Hz		200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**55 / 55**	**105 / 105**	**180 / 180**	**230 / 230**	
Rated current A		0.045 / 0.045	0.045 / 0.045	0.12 / 0.12	0.17 / 0.17	
Power consumption W		6.1 / 6.1	6.1 / 6.1	11 / 11	16 / 16	
Width (B) mm		148.5	204	255	255	
Height (H) mm		148.5	204	255	255	
Depth (T1) mm		16	24	25	25	
Max. installation depth (T2) mm		58.5	90	107	107	
Required mounting cut-out (BxH) mm		124 x 124	177 x 177	224 x 224	224 x 224	
Fan		Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	
Operating temperature range		-20 °C...+55 °C	-20 °C...+55 °C	-25 °C...+55 °C	-25 °C...+55 °C	
Storage temperature range		-30 °C...+70 °C	-30 °C...+70 °C	-25 °C...+70 °C	-25 °C...+70 °C	
Noise level dB(A)		49 / 49	53 / 53	47 / 47	52 / 52	
Service life of fans (L10, 40 °C) h		62500	62500	71000	64000	
Weight kg		0.62	0.91	2.01	1.98	
Accessories						
Outlet filter	1 pc(s).	3238.200	3239.200	3240.200	3240.200	537
Spare filter mat		see page	see page	see page	see page	535
Fine filter mat	5 pc(s).	3238.055	3181.100	3182.100	3182.100	536
Hose-proof hood	1 pc(s).	3238.080	3239.080	3240.080	3240.080	538
Blanking cover	2 pc(s).	3238.020	3239.020	3240.020	3240.020	538
EC speed control – Control unit for EC fan	1 pc(s).	–	–	3235.440	3235.440	548
EC speed control – Sensor for speed control	1 pc(s).	–	–	3235.450	3235.450	548
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	546

TopTherm fan-and-filter units

Air throughput 550 – 900 m³/h, with EC technology

Model No.	Packs of	**3243.500**	**3244.500**	**3245.500**	**3245.510**	Page
Control interface		■	■	■	■	
Rated operating voltage V, ~, Hz		200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	200 - 240, 1~, 50/60	100 - 130, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**550 / 550**	**700 / 700**	**900 / 900**	**900 / 900**	
Rated current A		0.5 / 0.5	0.7 / 0.7	1.33 / 1.33	2.1 / 2.1	
Power consumption W		51 / 51	80 / 80	165 / 165	165 / 165	
Width (B) mm		323	323	323	323	
Height (H) mm		323	323	323	323	
Depth (T1) mm		25	25	25	25	
Max. installation depth (T2) mm		118.5	130.5	130.5	130.5	
Required mounting cut-out (BxH) mm		292 x 292	292 x 292	292 x 292	292 x 292	
Fan		Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	Diagonal, EC motor	
Operating temperature range		-25 °C...+55 °C	-25 °C...+55 °C	-25 °C...+55 °C	-25 °C...+55 °C	
Storage temperature range		-25 °C...+70 °C	-25 °C...+70 °C	-25 °C...+70 °C	-25 °C...+70 °C	
Noise level dB(A)		63 / 63	64 / 64	72 / 72	72 / 72	
Service life of fans (L10, 40 °C) h		65000	67000	59000	59000	
Weight kg		2.92	2.7	3.46	3.76	
Accessories						
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	3243.200	537
Spare filter mat		see page	see page	see page	see page	535
Fine filter mat	5 pc(s).	3183.100	3183.100	3183.100	3183.100	536
Hose-proof hood	1 pc(s).	3243.080	3243.080	3245.080	3245.080	538
Blanking cover	2 pc(s).	3243.020	3243.020	3243.020	3243.020	538
EC speed control – Control unit for EC fan	1 pc(s).	3235.440	3235.440	3235.440	3235.440	548
EC speed control – Sensor for speed control	1 pc(s).	3235.450	3235.450	3235.450	3235.450	548
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	546

Air throughput and protection category

TopTherm fan-and-filter units

Model No.	Air throughput m³/h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With outlet filter including filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3237.100	**20/25**	1 x 3237.200 **15/18**	–	–	**IP 54/ Type 12**	**–**	**IP 56/ Type 3, 3R**
3237.110							
3237.124	**20**						
3238.100	**55/66**	1 x 3238.200 **43/50**	2 x 3238.200 **46/56**	–		**IP 54/ Type 12**	**IP 56/ Type 3, 3R Type 4, 4X**
3238.110							
3238.124	**55**	1 x 3238.200 **43**	2 x 3238.200 **46**				
3239.100	**105/120**	1 x 3239.200 **87/100**	2 x 3239.200 **93/108**	1 x 3240.200 **98/111**		**IP 55/ Type 12**	
3239.110							
3239.124	**105**	1 x 3239.200 **87**	2 x 3239.200 **93**	1 x 3240.200 **98**			
3240.100	**180/160**	1 x 3240.200 **138/121**	2 x 3240.200 **165/140**	1 x 3243.200 **165/140**			
3240.110							
3240.124	**180**	1 x 3240.200 **138**	2 x 3240.200 **165**	1 x 3243.200 **165**			
3241.100	**230/250**	1 x 3240.200 **183/205**	2 x 3240.200 **203/220**	1 x 3243.200 **203/230**			
3241.110							
3241.124	**230**	1 x 3240.200 **183**	2 x 3240.200 **203**	1 x 3243.200 **203**			
3243.100	**550/600**	1 x 3243.200 **465/510**	2 x 3243.200 **508/548**	–			
3243.110							
3244.100	**700/770**	1 x 3243.200 **544/587**	2 x 3243.200 **630/690**	–			
3244.110							
3244.140							

TopTherm fan-and-filter units, EMC

Model No.	Air throughput m³/h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With EMC outlet filter including EMC filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3237.600	**20/25**	1 x 3237.060 **15/18**	–	–	**IP 54/ Type 12**	**–**	**IP 56/ Type 3, 3R**
3238.600	**55/66**	1 x 3238.060 **43/50**	2 x 3238.060 **46/56**	–		**IP 54/ Type 12**	**IP 56/ Type 3, 3R Type 4, 4X**
3239.600	**105/120**	1 x 3239.060 **87/100**	2 x 3239.060 **93/108**	1 x 3240.060 **98/111**		**IP 55/ Type 12**	
3240.600	**180/160**	1 x 3240.060 **138/121**	2 x 3240.060 **165/140**	1 x 3243.060 **165/140**			
3241.600	**230/250**	1 x 3240.060 **183/205**	2 x 3240.060 **203/220**	1 x 3243.060 **203/230**			
3243.600	**550/600**	1 x 3243.060 **465/510**	2 x 3243.060 **508/548**	–			
3244.600	**700/770**	1 x 3243.060 **544/587**	2 x 3243.060 **630/690**	–			
3245.600	**900**	1 x 3243.060 **680**	2 x 3243.060 **820**	–	**IP 51**	**IP 52**	**IP 56/ Type 1, 12 Type 3, 3R**

TopTherm fan-and-filter units with EC technology

Model No.	Air throughput m³/h at 50/60 Hz				Protection category IP to IEC 60 529/NEMA protection category		
	Unimpeded air flow	With outlet filter including filter mat			Standard filter	Standard filter and additional micro-filter mat	Standard filter and hose-proof hood
3238.500	**55**	1 x 3238.200 **43**	2 x 3238.200 **46**	–	**IP 54/ Type 12**	**IP 54/ Type 12**	**IP 56/ Type 3, 3R Type 4, 4X**
3239.500	**105**	1 x 3239.200 **87**	2 x 3239.200 **93**	1 x 3240.200 **98**		**IP 55/ Type 12**	
3240.500	**180**	1 x 3240.200 **138**	2 x 3240.200 **165**	1 x 3243.200 **165**			
3241.500	**230**	1 x 3240.200 **183**	2 x 3240.200 **203**	1 x 3243.200 **203**			
3243.500	**550**	1 x 3243.200 **465**	2 x 3243.200 **508**	–			
3244.500	**700**	1 x 3243.200 **544**	2 x 3243.200 **630**	–			
3245.500	**900**	1 x 3243.200 **680**	2 x 3243.200 **820**	–	**IP 51**	**IP 52**	**IP 56/ Type 1, 12 Type 3, 3R**
3245.510	**900**	1 x 3243.200 **680**	2 x 3243.200 **820**	–			

Roof-mounted fan, roof vent

Accessories for climate control Page 533 **Therm software** Page 558

Roof-mounted fan with a high protection category and flexible installation from the inside or outside.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 21 without filter mat
– IP 55 including filter mat

Protection category NEMA:
– NEMA 12

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– To improve energy efficiency and extend the service life of the devices, we recommend the use of thermostats or temperature displays

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Air throughput, unimpeded air flow 500 – 965 m³/h

Model No.	Packs of	**3138.000**	**3139.100**	**3139.110**	**3140.100**	**3140.110**	**3140.140**	Page
Rated operating voltage V, ~, Hz		–	220 - 240, 1~, 50/60	115, 1~, 60	220 - 240, 1~, 50/60	115, 1~, 60	380 - 415, 3~, 50/60 400 - 480, 3~, 60	
Air throughput, unimpeded air flow (without filter mats) m³/h		–	**500 / 525**	**525**	**873 / 965**	**965**	**863 / 942**	
Air throughput, unimpeded air flow (with filter mats) m³/h		–	**417 / 446**	**446**	**725 / 759**	**759**	**700 / 749**	
Rated current A		–	0.23 / 0.27	0.56	0.43 / 0.56	1.2	0.17 / 0.2	
Power consumption W		–	51 / 62	65	99 / 130	138	98 / 130	
Width mm		400	400	400	400	400	400	
Height mm		133	133	133	133	133	133	
Depth mm		400	400	400	400	400	400	
Max. installation depth mm		27.5	34.6	34.6	34.6	34.6	34.6	
Required mounting cut-out mm		258 x 258	258 x 258	258 x 258	258 x 258	258 x 258	258 x 258	
Fan		without fan motor	Radial, capacitor motor	Radial, capacitor motor	Radial, capacitor motor	Radial, capacitor motor	Radial, rotary current motor	
Operating temperature range		-20 °C...+55 °C	-20 °C...+55 °C	-20 °C...+55 °C	-20 °C...+55 °C	-20 °C...+55 °C	-20 °C...+55 °C	
Storage temperature range		-40 °C...+70 °C	-40 °C...+70 °C	-40 °C...+70 °C	-40 °C...+70 °C	-40 °C...+70 °C	-40 °C...+70 °C	
Service life of fans (L10, 40 °C) h		–	69000 / 67600	69400 / 68000	62800 / 65800	67800 / 66400	63500 / 61500	
Weight kg		3.2	5.2	5.2	6.0	6.0	6.0	
Accessories								
Outlet filter	1 pc(s).	3243.200	3243.200	3243.200	3243.200	3243.200	3243.200	537
Spare filter mat	12 pc(s).	3174.100	3174.100	3174.100	3174.100	3174.100	3174.100	535
Speed control	1 pc(s).	–	3120.200	3120.200	3120.200	3120.200	–	549
Thermostat	1 pc(s).	–	3110.000	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	–	3118.000	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	–	3114.200	3114.200	3114.200	3114.200	3114.200	546

Accessories for climate control Page 533 **Therm software** Page 558

Energy-efficient and powerful design of the roof-mounted fans. The fan may be activated via the control interface with tacho signal output integrated as standard, and monitoring of the fan speed and function is supported.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 21 without filter mat
– IP 55 including filter mat

Protection category NEMA:
– NEMA 12

Supply includes:
– Complete unit ready to install, including filter mat

Note:
– For even more efficient operation or for monitoring the fans, we recommend the use of the EC speed controls

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Air throughput, unimpeded air flow 1069 m³/h, with EC technology

Model No.	Packs of	**3140.500**	**3140.510**	Page
Control interface		■	■	
Rated operating voltage V, ~, Hz		220 - 240, 1~, 50/60	115, 1~, 60	
Air throughput, unimpeded air flow (without filter mats) m³/h		**1069 / 1069**	**1069**	
Air throughput, unimpeded air flow (with filter mats) m³/h		**841 / 841**	**841**	
Rated current A		1 / 1	1.51	
Power consumption W		129 / 129	112	
Width mm		400	400	
Height mm		133	133	
Depth mm		400	400	
Max. installation depth mm		34.6	34.6	
Required mounting cut-out mm		258 x 258	258 x 258	
Fan		Radial, EC motor	Radial, EC motor	
Operating temperature range		-20 °C...+55 °C	-20 °C...+55 °C	
Storage temperature range		-40 °C...+70 °C	-40 °C...+70 °C	
Service life of fans (L10, 40 °C) h		84000 / 84000	82000 / 82000	
Weight kg		5.6	5.6	
Accessories				
Outlet filter	1 pc(s).	3243.200	3243.200	537
Spare filter mat	12 pc(s).	3174.100	3174.100	535
EC speed control – Control unit for EC fan	1 pc(s).	3235.440	3235.440	548
EC speed control – Sensor for speed control	1 pc(s).	3235.450	3235.450	548
Thermostat	1 pc(s).	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	546

Rack-mounted fans for 482.6 mm (19")

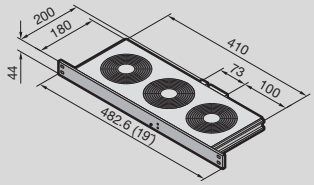
Accessories for climate control Page 533

Rack-mounted fan for direct installation in the 482.6 mm (19") level. Installation allows air to circulate permanently inside the enclosure, thus preventing the formation of hot spots.

Colour:
– RAL 7035

Supply includes:
– Fully wired unit ready for connection
– Terminal strip and assembly parts

Approvals:
Available on the Internet



Air throughput, unimpeded air flow 320 – 480 m³/h

Model No.	Packs of	**3340.230**	**3341.115**	**3341.230**	**3342.024**	**3342.230**	**3342.500**	Page
With monitoring		–	–	–	–	–	■	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	24 (DC)	230, 1~, 50/60	115 - 230, 1~, 50/60 24 (DC)	
Air throughput, unimpeded air flow m³/h		**320**	**480**	**480**	**480**	**480**	**480**	
No. of fans		2	3	3	3	3	3	
Distance between axes mm		85	85	85	105	105	105	
Rated current A		0.24 / 0.22	0.69 / 0.69	0.36 / 0.33	0.74	0.36 / 0.33	0.85	
Width mm		482.6	482.6	482.6	482.6	482.6	482.6	
Height mm		44	44	44	44	44	44	
Depth mm		200	200	200	200	200	200	
Operating temperature range		-10 °C...+55 °C	-10 °C...+55 °C	-10 °C...+55 °C	-10 °C...+55 °C	-10 °C...+55 °C	-10 °C...+55 °C	
Noise level dB(A)		51	52	51	51	51	51	
Weight kg		2.24	2.0	2.74	1.86	2.78	2.0	
Accessories								
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	546
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	547
Speed control	1 pc(s).	3120.200	3120.200	3120.200	–	3120.200	–	549

Vario rack-mounted fans for 482.6 mm (19")

Accessories for climate control Page 533

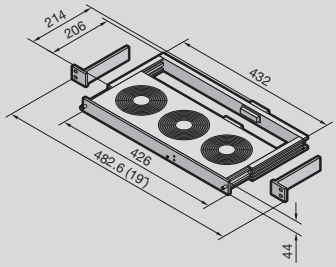
Rack-mounted fan for direct installation in the 482.6 mm (19") level. Installation allows air to circulate permanently inside the enclosure, thus preventing the formation of hot spots.

Benefits:
– Guide frame ensures easy maintenance and replacement of the fans

Colour:
– RAL 7035

Supply includes:
– Fully wired unit ready for connection
– Terminal strip and assembly parts

Approvals:
Available on the Internet



Air throughput, unimpeded air flow 320 – 480 m³/h

Model No.	Packs of	**3350.230**	**3351.230**	**3352.230**	**3352.500**	Page
With monitoring		–	–	–	■	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	115 - 230, 1~, 50/60 24 (DC)	
Air throughput, unimpeded air flow m³/h		**320**	**480**	**480**	**480**	
No. of fans		2	3	3	3	
Distance between axes mm		85	85	105	105	
Rated current A		0.24 / 0.22	0.36 / 0.33	0.36 / 0.33	0.85 / 0.85	
Width mm		482.6	482.6	482.6	482.6	
Height mm		44	44	44	44	
Depth mm		200	200	200	200	
Operating temperature range		-10 °C...+55 °C	-10 °C...+55 °C	-10 °C...+55 °C	-10 °C...+55 °C	
Noise level dB(A)		51	51	51	51	
Weight kg		2.0	2.7	2.78	2.04	
Also required						
Guide frame	1 pc(s).	3355.100	3355.100	3355.100	3357.100	557
Accessories						
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	546
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547
Speed control	1 pc(s).	3120.200	3120.200	3120.200	–	549

Tangential fan for 482.6 mm (19")

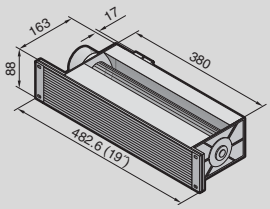
Accessories for climate control Page 533

Centrifugal fans for direct installation in the 482.6 mm (19") level provide a wide column of air plus favourable noise characteristics to set them apart from other fans.

Colour:
– RAL 9005

Supply includes:
– Fully wired unit ready for connection
– Filter mat

Approvals:
Available on the Internet



Air throughput, unimpeded air flow 320 m³/h

Model No.	Packs of	**3144.000**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	
Air throughput, unimpeded air flow m³/h		**320**	
Rated current A		0.16	
Power consumption W		37	
Width mm		482.6	
Height mm		88	
Depth mm		163	
Operating temperature range		-10 °C...+55 °C	
Noise level dB(A)		52	
Speed rpm		2245	
Maximum static pressure difference Pa		65 - 70	
Weight kg		2.02	
Accessories			
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	546
Thermostat	1 pc(s).	3110.000	547
Filter mat	5 pc(s).	3177.000	533
Front outlet grille 2 U	1 pc(s).	3176.000	539
Speed control	1 pc(s).	3120.200	549

TopTherm air/air heat exchangers

Accessories for climate control Page 533 **Therm software** Page 558

Air/air heat exchangers are particularly well-suited to aggressive ambient conditions, because the internal and external air circuits are completely separate from one another.

Temperature control:
– Electronic control with digital display (factory setting +35 °C)

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– Internal circuit IP 54
– External circuit IP 34

Supply includes:
– Complete unit ready for connection
– Plug-in terminal strip
– Floating fault signal contact in case of overtemperature
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Specific thermal output 17.5 – 90 W/K, wall-mounted with controller

Model No.	Packs of	**3126.100**	**3127.100**	**3128.100**	**3129.100**	**3130.100**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Specific thermal output W/K		**17.5**	**30**	**45**	**60**	**90**	
Rated current A		0.22 / 0.26	0.56 / 0.68	0.6 / 0.8	0.75 / 0.8	1.35 / 1.8	
Rated power input W		50 / 60	120 / 150	140 / 180	170 / 180	300 / 400	
Width mm		280	400	400	400	400	
Height mm		550	950	950	950	1580	
Depth mm		150	205	205	225	215	
Operating temperature range		-5 °C...+55 °C	-5 °C...+55 °C	-5 °C...+55 °C	-5 °C...+55 °C	-5 °C...+55 °C	
Weight kg		10.0	18.0	19.0	21.0	34.0	
Accessories							
Filter mat	3 pc(s).	3286.300	3286.400	3286.400	3286.400	3286.400	533
Metal filter	1 pc(s).	3286.310	3286.410	3286.410	3286.410	3286.410	534

Air/air heat exchanger

Accessories for climate control Page 533 **Therm software** Page 558

Air/air heat exchangers are particularly well-suited to aggressive ambient conditions, because the internal and external air circuits are completely separate from one another.

Colour:
- Cover: RAL 7035
- Enclosure: RAL 7016

Protection category IP to IEC 60 529:
- Internal circuit IP 54
- External circuit IP 34

Supply includes:
- Complete unit ready for connection
- The fans are connected via two 3-wire connection cables, with wire end ferrules
- Drilling template
- Assembly parts

Note:
- For precise temperature control inside the enclosure, we recommend the enclosure internal thermostat, the digital enclosure internal temperature display and thermostat or the speed control.

Specific thermal output 66 W/K, roof-mounted

Model No.	Packs of	**3248.000**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	
Specific thermal output W/K		**66**	
No. of fans		2	
Max. rated current per fan A		0.32 / 0.4	
Rated power input W		70 / 90	
Width mm		595	
Height mm		362	
Depth mm		440	
Operating temperature range		-5 °C...+55 °C	
Type of electrical connection		Connection cable	
Weight kg		25.0	
Accessories			
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	546
Thermostat	1 pc(s).	3110.000	547
Hygrostat	1 pc(s).	3118.000	547
Speed control	1 pc(s).	3120.200	549

Roof-mounted fans

Simple installation and a high protection category,
from page 464

Rittal – The System.

Faster – better – everywhere.

Cooling units

Thermoelectric coolers

Thermoelectric coolers ..... 80 W 474

Wall-mounted cooling units

TopTherm, horizontal format ..... 300 W 475
TopTherm ..... 300 W 476
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TopTherm Blue e ..... 750 W 478
TopTherm Blue e ..... 1000 W 479
TopTherm Blue e ..... 1500 W 480
TopTherm Blue e ..... 2000 W 481
TopTherm Blue e ..... 2500 W 482
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Modular climate control concept

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BLUEcoMPETENCE
Alliance Member
Partner of the Engineering Industry Sustainability Initiative

VX25 e+

The perfect symbiosis of the VX25 baying enclosure system and Blue e+ cooling unit

- **Integrated all-in-one system**
  The Blue e+ cooling unit is already integrated in the VX25 enclosure
- **Plug & play**
  Cooling unit, door limit switches and cabling are installed ready to connect
- **State-of-the-art design**
  No cooling unit built onto the enclosure

Thermoelectric coolers

Accessories for climate control Page 533 **Therm software** Page 558

Powerful thermoelectric cooling units in a lightweight design for the climate control of command panels and small enclosures.

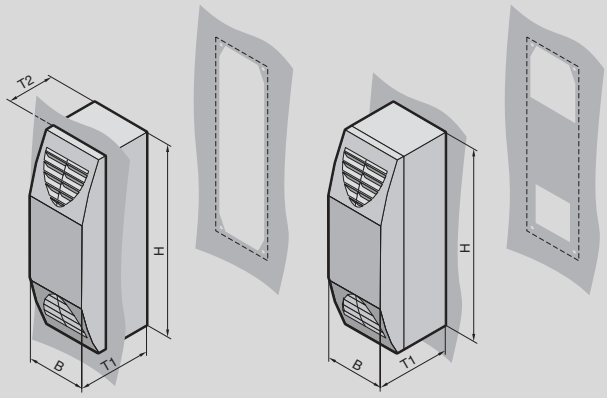
Material:
– Device: Aluminium, anodised

Colour:
– Cover: RAL 7015

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Thermoelectric climate control unit
– Fully wired ready for connection (plug-in terminal strip)
– Mounting accessories
– Filter mat
– USB cable A/B
– Drilling template

Performance diagrams:
Available on the Internet



Total cooling output 80/100 W

Model No.	Packs of	**3201.200**	**3201.300**	Page
Rated operating voltage V, ~, Hz		100 - 240, 1~, 50/60	24 (DC)	
Total cooling output L35 L35 W		**80 / 80**	**80**	
Total cooling output L35 L30 W		**100 / 100**	**100**	
Thermal output W		**80**	**80**	
Width (B) mm		125	125	
Height (H) mm		400	400	
Depth (T1) mm		155	155	
Installation depth (T2) mm		100	100	
Operating temperature range		-30 °C...+55 °C	-30 °C...+60 °C	
Setting range, cooling		+5 °C...+55 °C	+5 °C...+55 °C	
Setting range, heating		-10 °C...+20 °C	-10 °C...+20 °C	
Refrigeration factor/COP		0.8	0.9	
Power pack integrated		■	–	
Weight kg		3.3	2.6	
Accessories				
Spare filter mat	5 pc(s).	3201.050	3201.050	535
Condensate hose	1 pc(s).	3301.606	3301.606	544

TopTherm wall-mounted cooling units, horizontal format

Accessories for climate control Page 533 **Therm software** Page 558

Compact wall-mounted cooling units in horizontal format, with nano-coated condenser.

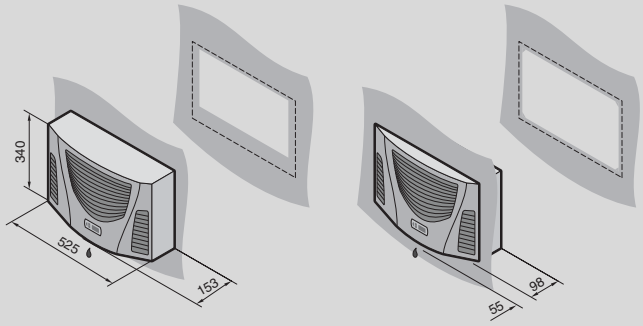
Temperature control:
– Basic controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 300 W

Model No.		Packs of	**3302.300**	**3302.310**	Page
Material	Sheet steel		■	■	
Colour	RAL 7035		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.36**	–	
Total cooling output 50/60 Hz L35 L35 kW			0.36 / 0.38	0.38	
Total cooling output 50/60 Hz L35 L50 kW			0.21 / 0.22	0.23	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	
Width mm			525	525	
Height mm			340	340	
Depth mm			153	153	
Rated current max. A			1.6 / 1.7	4	
Start-up current A			4.3 / 5.3	12	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.27 / 0.29	0.32	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+30 °C...+55 °C	+30 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.34 / 1.3	1.18	
Refrigerant g			R134a, 100	R134a, 100	
Weight kg			13.0	13.0	
Accessories					
Filter mat		3 pc(s).	3286.110	3286.110	533
Metal filter		1 pc(s).	3286.120	3286.120	534
Door-operated switch		1 pc(s).	4127.010	4127.010	1024
Condensate hose		1 pc(s).	3301.608	3301.608	544
Electric condensate evaporator		1 pc(s).	3301.500	3301.500	543

TopTherm wall-mounted cooling units

Accessories for climate control Page 533 **Therm software** Page 558

Compact wall-mounted cooling units, with nano-coated condenser.

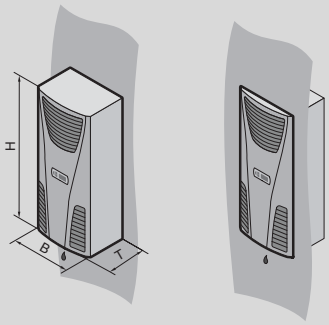
Temperature control:
– Basic controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 300 W

Model No.		Packs of	**3302.100**	**3302.110**	**3302.200**	Page
Material	Sheet steel		■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	■	
Colour	RAL 7035		■	■	–	
	RAL 9007		–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.36**	–	**0.36**	
Total cooling output 50/60 Hz L35 L35 kW			0.36 / 0.38	0.38	0.36 / 0.38	
Total cooling output 50/60 Hz L35 L50 kW			0.21 / 0.23	0.23	0.21 / 0.23	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	
Width (B) mm			280	280	280	
Height (H) mm			550	550	550	
Depth (T) mm			140	140	140	
Rated current max. A			1.6 / 1.7	3.3	1.6 / 1.7	
Start-up current A			3 / 3.4	8	3 / 3.4	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.27 / 0.28	0.32	0.27 / 0.28	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+30 °C...+55 °C	+30 °C...+55 °C	+30 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.3 / 1.32	1.18	1.3 / 1.32	
Refrigerant g			R134a, 100	R134a, 100	R134a, 100	
Weight kg			13.0	13.0	13.0	
Accessories						
Filter mat		3 pc(s).	3286.300	3286.300	3286.300	533
Metal filter		1 pc(s).	3286.310	3286.310	3286.310	534
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	1024
Condensate hose		1 pc(s).	3301.610	3301.610	3301.610	544
Electric condensate evaporator		1 pc(s).	3301.500	3301.500	3301.500	543

TopTherm wall-mounted cooling units Blue e

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559

Energy-efficient Blue e wall-mounted cooling units with integral e-Comfort controller and RiNano coating on the condenser as standard.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:
– e-Comfort controller (factory setting +35 °C)

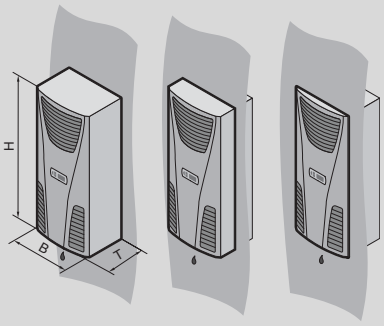
Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Note:
– The technical specifications for the wall-mounted cooling unit 3361.540 apply with an external transformer connected.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



TopTherm wall-mounted cooling units Blue e

Output class 500 W

Model No.		Packs of	**3303.500**	**3303.510**	**3303.600**	Page
Material	Sheet steel		■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	■	
Colour	RAL 7035		■	■	–	
	RAL 9007		–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.55**	–	**0.55**	
Total cooling output 50/60 Hz L35 L35 kW			0.55 / 0.66	0.66	0.55 / 0.66	
Total cooling output 50/60 Hz L35 L50 kW			0.33 / 0.4	0.4	0.33 / 0.4	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	
Width (B) mm			280	280	280	
Height (H) mm			550	550	550	
Depth (T) mm			210	210	210	
Rated current max. A			2.6 / 2.6	5.7	2.6 / 2.6	
Start-up current A			5.1 / 6.4	11.5	5.1 / 6.4	
Toroidal transformer (external) Ø x D			–	–	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.39 / 0.41	0.5	0.39 / 0.41	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.4 / 1.21	1.31	1.4	
Refrigerant g			R134a, 170	R134a, 170	R134a, 170	
Weight kg			17.0	17.0	17.0	
Accessories						
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.300	3286.300	3286.300	533
Metal filter		1 pc(s).	3286.310	3286.310	3286.310	534
Master/slave cable		1 pc(s).	3124.100	3124.100	3124.100	550
Electric condensate evaporator		1 pc(s).	3301.500	3301.500	3301.500	543
Condensate hose		1 pc(s).	3301.610	3301.610	3301.610	544
RiDiag		1 pc(s).	3159.100	3159.100	3159.100	559

Output class 750 W

Model No.		Packs of	**3361.500**	**3361.510**	**3361.540**	**3361.600**	Page
Material	Sheet steel		■	■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	■	
Colour	RAL 7035		■	■	■	–	
	RAL 9007		–	–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.85**	–	**0.85**	**0.85**	
Total cooling output 50/60 Hz L35 L35 kW			0.85 / 0.89	0.89	0.85 / 0.89	0.85 / 0.89	
Total cooling output 50/60 Hz L35 L50 kW			0.67 / 0.67	0.67	0.67 / 0.67	0.67 / 0.67	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 60	400, 2~, 50/60	230, 1~, 50/60	
Width (B) mm			280	280	280	280	
Height (H) mm			550	550	550	550	
Depth (T) mm			280	280	280	280	
Rated current max. A			2.7 / 2.7	5.3	1.2 / 1.4	2.7 / 2.7	
Start-up current A			6 / 9.6	12	3.1 / 3.3	6 / 9.6	
Toroidal transformer (external) Ø x D mm			–	–	126 x 65	–	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.4 / 0.43	0.55	0.4 / 0.43	0.4 / 0.43	
Operating temperature range			+10 °C...+55 °C	+10 °C...+52 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			+53 °C	+52 °C	+53 °C	+53 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.08 / 2.03	1.59	2.08 / 2.03	2.08 / 2.03	
Refrigerant g			R134a, 280	R134a, 260	R134a, 280	R134a, 280	
Weight kg			22.0	22.0	22.0	22.0	
Accessories							
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.300	3286.300	3286.300	3286.300	533
Metal filter		1 pc(s).	3286.310	3286.310	3286.310	3286.310	534
Master/slave cable		1 pc(s).	3124.100	3124.100	3124.100	3124.100	550
Electric condensate evaporator		1 pc(s).	3301.500	3301.500	3301.500	3301.500	543
Condensate hose		1 pc(s).	3301.610	3301.610	3301.610	3301.610	544
RiDiag		1 pc(s).	3159.100	3159.100	3159.100	3159.100	559

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559

Energy-efficient Blue e wall-mounted cooling units with integral e-Comfort controller, RiNano coating on the condenser and electrical condensate evaporation as standard.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

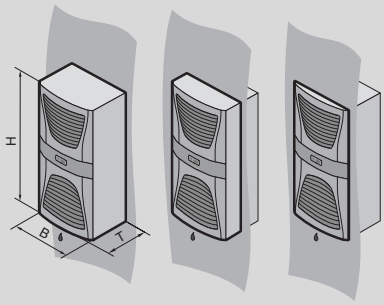
Temperature control:
– e-Comfort controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 1000 W

Model No.		Packs of	3304.500	3304.510	3304.540	3304.600	3304.640	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
	RAL 9007		–	–	–	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	
Total cooling output 50/60 Hz L35 L35 kW			1.1 / 1.25	1.1 / 1.25	1.1 / 1.25	1.1 / 1.25	1.1 / 1.26	
Total cooling output 50/60 Hz L35 L50 kW			0.91 / 0.9	0.91 / 0.9	0.98 / 0.9	0.91 / 0.9	0.98 / 0.9	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	400	400	400	
Height (H) mm			950	950	950	950	950	
Depth (T) mm			260	260	260	260	260	
Rated current max. A			3.9 / 4.3	8 / 8.8	2.2 / 2.1	3.9 / 4.3	2.2 / 2.1	
Start-up current A			12 / 14	26 / 28	11.5 / 12.7	12 / 14	11.5 / 12.7	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.64 / 0.68	0.64 / 0.68	0.64 / 0.79	0.6 / 0.68	0.64 / 0.79	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.83 / 1.84	1.83 / 1.84	1.72 / 1.58	1.83 / 1.84	1.72 / 1.59	
Refrigerant g			R134a, 325	R134a, 325	R134a, 325	R134a, 325	R134a, 325	
Weight kg			39.0	44.0	40.0	39.0	40.0	
Accessories								
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.400	3286.400	3286.400	3286.400	3286.400	533
Metal filter		1 pc(s).	3286.410	3286.410	3286.410	3286.410	3286.410	534
Master/slave cable		1 pc(s).	3124.100	3124.100	3124.100	3124.100	3124.100	550
Air diverter		1 pc(s).	3213.310	3213.310	3213.310	3213.310	3213.310	542
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	3301.612	544
RiDiag		1 pc(s).	3159.100	3159.100	3159.100	3159.100	3159.100	559

TopTherm wall-mounted cooling units Blue e

Output class 1500 W

Model No.		Packs of	**3305.500**	**3305.510**	**3305.540**	Page
Material	Sheet steel		■	■	■	
Colour	RAL 7035		■	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.6**	**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW			1.6 / 1.76	1.6 / 1.76	1.6 / 1.61	
Total cooling output 50/60 Hz L35 L50 kW			1.25 / 1.37	1.25 / 1.37	1.33 / 1.35	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	400	
Height (H) mm			950	950	950	
Depth (T) mm			260	260	260	
Rated current max. A			5.5 / 5.8	11.5 / 12.5	2.5 / 2.8	
Start-up current A			12 / 14	26 / 28	12.2 / 11.3	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.87 / 0.98	0.87 / 0.98	0.9 / 1.08	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.83 / 1.79	1.83 / 1.79	1.83 / 1.49	
Refrigerant g			R134a, 500	R134a, 500	R134a, 500	
Weight kg			41.0	46.0	42.0	
Accessories						
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.400	3286.400	3286.400	533
Metal filter		1 pc(s).	3286.410	3286.410	3286.410	534
Master/slave cable		1 pc(s).	3124.100	3124.100	3124.100	550
Air diverter		1 pc(s).	3213.310	3213.310	3213.310	542
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	544
RiDiag		1 pc(s).	3159.100	3159.100	3159.100	559

TopTherm wall-mounted cooling units Blue e

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559

Energy-efficient Blue e wall-mounted cooling units with integral e-Comfort controller, RiNano coating on the condenser and electrical condensate evaporation as standard.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

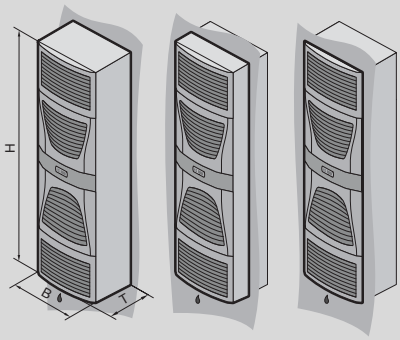
Temperature control:
– e-Comfort controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 2000 W

Model No.		Packs of	**3328.500**	**3328.540**	Page
Material	Sheet steel		■	■	
Colour	RAL 7035		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2.2**	**2.2**	
Total cooling output 50/60 Hz L35 L35 kW			2.2 / 2.56	2.2 / 2.55	
Total cooling output 50/60 Hz L35 L50 kW			1.82 / 1.95	1.65 / 1.89	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	
Height (H) mm			1580	1580	
Depth (T) mm			295	295	
Rated current max. A			6.1 / 6.6	2.8 / 3.3	
Start-up current A			20 / 22	6.8 / 7.8	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.91 / 1.03	0.92 / 1.15	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.4 / 2.47	2.4 / 2.22	
Refrigerant g			R134a, 950	R134a, 950	
Weight kg			66.0	67.0	
Accessories					
IoT interface		1 pc(s).	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.400	3286.400	533
Metal filter		1 pc(s).	3286.410	3286.410	534
Master/slave cable		1 pc(s).	3124.100	3124.100	550
Air diverter		1 pc(s).	3213.320	3213.320	542
Condensate hose		1 pc(s).	3301.612	3301.612	544
RiDiag		1 pc(s).	3159.100	3159.100	559
Eyebolts		4 pc(s).	4568.000	4568.000	964

TopTherm wall-mounted cooling units Blue e

Output class 2500 W

Model No.		Packs of	**3329.500**	**3329.540**	Page
Material	Sheet steel		■	■	
Colour	RAL 7035		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2.55**	**2.55**	
Total cooling output 50/60 Hz L35 L35 kW			2.55 / 2.71	2.55 / 2.75	
Total cooling output 50/60 Hz L35 L50 kW			1.8 / 1.8	1.95 / 2	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width (B) mm			400	400	
Height (H) mm			1580	1580	
Depth (T) mm			295	295	
Rated current max. A			7.9 / 9.3	3.3 / 3.4	
Start-up current A			25 / 22	6.8 / 7.6	
Power consumption P_{el} 50/60 Hz L35 L35 kW			1.21 / 1.35	1.19 / 1.39	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.11 / 2.01	2.11 / 1.97	
Refrigerant g			R134a, 950	R134a, 950	
Weight kg			69.0	70.0	
Accessories					
IoT interface		1 pc(s).	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.400	3286.400	533
Metal filter		1 pc(s).	3286.410	3286.410	534
Master/slave cable		1 pc(s).	3124.100	3124.100	550
Air diverter		1 pc(s).	3213.320	3213.320	542
Condensate hose		1 pc(s).	3301.612	3301.612	544
RiDiag		1 pc(s).	3159.100	3159.100	559
Eyebolts		4 pc(s).	4568.000	4568.000	964

Rittal – The System.

Blue e IoT adaptor

see page 555

TopTherm wall-mounted cooling units Blue e, slimline

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559

Energy-efficient Blue e wall-mounted cooling units with e-Comfort controller integrated as standard, RiNano coating on the condenser and electrical condensate evaporation. Slimline design.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:
– e-Comfort controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts for internal mounting

Note:
– For external mounting of the cooling unit, trim frame 3377.000 including assembly parts may be fitted. This gives the cooling unit a closed front appearance.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 1500 W

Model No.		Packs of	**3366.500**	**3366.540**	Page
Material	Sheet steel		■	■	
Colour	RAL 7035		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW			1.6 / 1.6	1.6 / 1.6	
Total cooling output 50/60 Hz L35 L50 kW			1.15 / 1.2	1.08 / 1.18	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width mm			435	435	
Height mm			1590	1590	
Depth mm			205	205	
Rated current max. A			6.7 / 6.9	2.7 / 2.9	
Start-up current A			22 / 24	8 / 8.8	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.84 / 0.97	0.9 / 1.05	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			1.9 / 1.65	1.9 / 1.52	
Refrigerant g			R134a, 700	R134a, 700	
Weight kg			45.0	46.0	
Accessories					
IoT interface		1 pc(s).	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	1024
Filter mat		3 pc(s).	3286.400	3286.400	533
Metal filter		1 pc(s).	3286.410	3286.410	534
Master/slave cable		1 pc(s).	3124.100	3124.100	550
Trim frame		1 pc(s).	3377.000	3377.000	556
Condensate hose		1 pc(s).	3301.612	3301.612	544
RiDiag		1 pc(s).	3159.100	3159.100	559

Wall-mounted cooling units Blue e+

The world's most efficient range of cooling units.

Incredibly efficient

- Average 75% energy savings with innovative hybrid technology
- Active cooling circuit with speed-regulated components for demand-based cooling
- Integral heat pipe for passive cooling dissipates heat from the enclosure as soon as the ambient temperature falls below the setpoint

Intelligent networking

- In conjunction with the IoT interface, all Blue e+ cooling units can now be networked and digitalised

  The benefits for you:
  – Continuous monitoring of temperature levels
  – Avoidance of downtime costs and consequential damage
  – Automatic notification of any cooling unit malfunctions
  – Asset Management: Localisation and organisation of cooling units
  – Remote access: Device parameters can be configured remotely

Easier to operate

- Fast unit analysis using RiDiag III software via USB port
- Fast parameterisation, data reading and plain-text system messages via the intelligent, multilingual, industry-grade display
- Contactless on-site information sharing and fast, direct analysis via the NFC interface with the Blue e+ app

Maximum flexibility

- One device for all voltages and networks, suitable for worldwide use thanks to inverter technology:
  – 110 to 240 V, 1~, 50/60 Hz
  – 380 to 480 V, 3~, 50/60 Hz
- International approvals and certifications
- Available in sheet steel or stainless steel
- One version for external mounting, partial internal mounting and full internal mounting with identical mounting cut-out

Wall-mounted cooling units Blue e+

Accessories for climate control Page 533 **Therm software** Page 558 **Blue e+ app** Page 559 **IoT interface** Page 554

Benefits:
- Average 75% energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:
- e+ controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
- Internal circuit IP 55

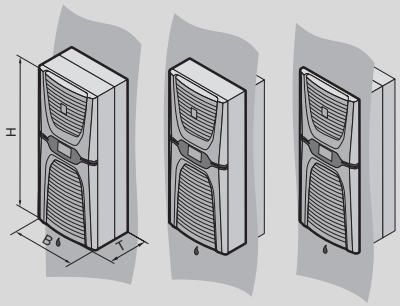
Supply includes:
- Nano-coated condenser
- Integral electric condensate evaporation
- Assembly parts
- Fully wired ready for connection (plug-in terminal strip)

Optional:
- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Note:
- Please observe the mounting instructions.
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 1600 W

Model No.		Packs of	**3185.530**	**3185.830**	Page
Material	Sheet steel		–	■	
	Stainless steel 1.4301 (AISI 304)		■	–	
Colour	RAL 7035		–	■	
	RAL 9007		■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW			1.6 / 1.6	1.6 / 1.6	
Total cooling output 50/60 Hz L35 L50 kW			1.2 / 1.2	1.2 / 1.2	
Rated operating voltage V, ~, Hz			110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Width (B) mm			400	400	
Height (H) mm			950	950	
Depth (T) mm			310	310	
Rated power input kW			0.62	0.62	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.54 / 0.54	0.54 / 0.54	
Operating temperature range			-20 °C...+60 °C	-20 °C...+60 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			3.1 / 3.1	3.1 / 3.1	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			6.4	6.4	
Refrigerant g			R134a, 750	R134a, 750	
Weight kg			36.3	37.1	
Accessories					
IoT interface		1 pc(s).	3124.300	3124.300	554
Door-operated switch		1 pc(s).	4127.010	4127.010	1024
Filter mat		3 pc(s).	3285.800	3285.800	533
Metal filter		1 pc(s).	3285.810	3285.810	534
Temperature sensor		1 pc(s).	3124.400	3124.400	549
Condensate hose		1 pc(s).	3301.612	3301.612	544
Eyebolts		4 pc(s).	4568.000	4568.000	964
RiDiag		1 pc(s).	3159.300	3159.300	559

Rittal – The System.

IoT Interface

see page 554

Wall-mounted cooling units Blue e+

Accessories for climate control Page 533 **Therm software** Page 558 **Blue e+ app** Page 559 **IoT interface** Page 554

Benefits:
- Average 75% energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:
- e+ controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
- Internal circuit IP 55

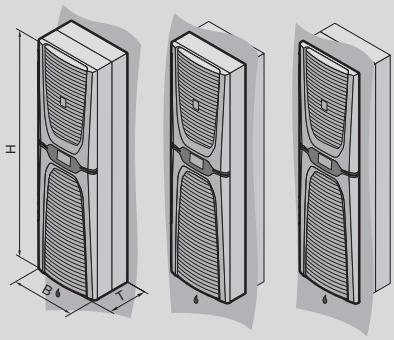
Supply includes:
- Nano-coated condenser
- Integral electric condensate evaporation
- Assembly parts
- Fully wired ready for connection (plug-in terminal strip)

Optional:
- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Note:
- Please observe the mounting instructions.
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 2000 – 2600 W

Model No.		Packs of	**3186.630**	**3186.930**	**3187.630**	**3187.930**	Page
Material	Sheet steel		–	■	–	■	
	Stainless steel 1.4301 (AISI 304)		■	–	■	–	
Colour	RAL 7035		–	■	–	■	
	RAL 9007		■	–	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2**	**2**	**2.6**	**2.6**	
Total cooling output 50/60 Hz L35 L35 kW			2 / 2	2 / 2	2.6 / 2.6	2.6 / 2.6	
Total cooling output 50/60 Hz L35 L50 kW			1.29 / 1.29	1.29 / 1.29	1.82 / 1.82	1.82 / 1.82	
Rated operating voltage V, ~, Hz			110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Width (B) mm			450	450	450	450	
Height (H) mm			1600	1600	1600	1600	
Depth (T) mm			294	294	294	294	
Rated power input kW			0.73	0.73	1.05	1.05	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.57 / 0.57	0.57 / 0.57	0.99 / 0.99	0.99 / 0.99	
Operating temperature range			-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			3.5 / 3.5	3.5 / 3.5	2.63 / 2.63	2.63 / 2.63	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			8.1	8.1	6.2	6.2	
Refrigerant g			R134a, 1150	R134a, 1150	R134a, 1150	R134a, 1150	
Note on Model No.			–	–	–	–	
Weight kg			54.8	55.2	54.8	55.2	
Accessories							
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Filter mat		3 pc(s).	3285.900	3285.900	3285.900	3285.900	533
Metal filter		1 pc(s).	3285.910	3285.910	3285.910	3285.910	534
Temperature sensor		1 pc(s).	3124.400	3124.400	3124.400	3124.400	549
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Eyebolts		4 pc(s).	4568.000	4568.000	4568.000	4568.000	964
RiDiag		1 pc(s).	3159.300	3159.300	3159.300	3159.300	559

Output class 4200 – 5800 W

Model No.		Packs of	**3188.640**	**3188.940**	**3189.640**	**3189.940**	Page
Material	Sheet steel		–	■	–	■	
	Stainless steel 1.4301 (AISI 304)		■	–	■	–	
Colour	RAL 7035		–	■	–	■	
	RAL 9007		■	–	■	–	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**4.2**	**4.2**	**5.8**	**5.8**	
Total cooling output 50/60 Hz L35 L35 kW			4.2 / 4.2	4.2 / 4.2	5.8 / 5.8	5.8 / 5.8	
Total cooling output 50/60 Hz L35 L50 kW			3.02 / 3.02	3.02 / 3.02	4.2 / 4.2	4.2 / 4.2	
Rated operating voltage V, ~, Hz			380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	
Width (B) mm			450	450	450	450	
Height (H) mm			1600	1600	1600	1600	
Depth (T) mm			393	393	393	393	
Rated power input kW			1.3	1.3	2.2	2.2	
Power consumption P_{el} 50/60 Hz L35 L35 kW			1.21 / 1.21	1.21 / 1.21	2.2 / 2.2	2.2 / 2.2	
Operating temperature range			-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	-20 °C...+60 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			3.46 / 3.46	3.46 / 3.46	2.64 / 2.64	2.64 / 2.64	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			8.1	8.1	6.2	6.2	
Refrigerant g			R134a, 1750	R134a, 1750	R134a, 1750	R134a, 1750	
Note on Model No.			Full installation not possible	Full installation not possible	Full installation not possible	Full installation not possible	
Weight kg			71.2	72.4	71.2	72.4	
Accessories							
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Filter mat		3 pc(s).	3285.900	3285.900	3285.900	3285.900	533
Metal filter		1 pc(s).	3285.910	3285.910	3285.910	3285.910	534
Temperature sensor		1 pc(s).	3124.400	3124.400	3124.400	3124.400	549
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Eyebolts		4 pc(s).	4568.000	4568.000	4568.000	4568.000	964
RiDiag		1 pc(s).	3159.300	3159.300	3159.300	3159.300	559

TopTherm wall-mounted cooling units Blue e, NEMA 4X

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559

Energy-efficient Blue e wall-mounted cooling units with e-Comfort controller integrated as standard, RiNano coating on the condenser and electrical condensate evaporation. Protection category NEMA 4X.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:
– e-Comfort controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 55

Protection category NEMA:
– NEMA 4X

Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Please observe the product-specific scope of supply.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 500 – 1500 W

Model No.	Packs of	**3303.504**	**3303.514**	**3304.504**	**3304.544**	**3305.504**	**3305.544**	Page
Material: Stainless steel 1.4404 (AISI 316L)		■	■	■	■	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW		**0.55**	–	**1.1**	**1.1**	**1.6**	**1.6**	
Total cooling output 50/60 Hz L35 L35 kW		0.55 / 0.66	0.66	1.1 / 1.25	1.1 / 1.26	1.6 / 1.76	1.6 / 1.61	
Total cooling output 50/60 Hz L35 L50 kW		0.33 / 0.4	0.4	0.91 / 0.9	0.98 / 1.09	1.25 / 1.37	1.33 / 1.35	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Width mm		285	285	405	405	405	405	
Height mm		620	620	1020	1020	1020	1020	
Depth mm		298	298	358	358	358	358	
Rated current max. A		2.6 / 2.6	5.7	3.9 / 4.3	2.2 / 2.1	5.5 / 5.8	2.5 / 2.8	
Start-up current A		5.1 / 6.4	11.5	12 / 14	11.5 / 12.7	12 / 14	12.2 / 11.3	
Power consumption P_{el} 50/60 Hz L35 L35 kW		0.39 / 0.41	0.5	0.64 / 0.68	0.64 / 0.79	0.87 / 0.98	0.9 / 1.08	
Operating temperature range		+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range		+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35		1.4	1.31	1.83 / 1.84	1.83 / 1.56	1.83 / 1.79	1.83 / 1.49	
Refrigerant g		R134a, 170	R134a, 170	R134a, 325	R134a, 325	R134a, 500	R134a, 500	
Weight kg		25.0	25.0	49.0	50.0	51.0	52.0	
Product-specific scope of supply								
Integral electric condensate evaporation		–	–	■	■	■	■	
Accessories								
IoT interface	1 pc(s).	3124.300	3124.300	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor	1 pc(s).	3124.310	3124.310	3124.310	3124.310	3124.310	3124.310	555
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	4127.010	1024
Master/slave cable	1 pc(s).	3124.100	3124.100	3124.100	3124.100	3124.100	3124.100	550
Air diverter	1 pc(s).	–	–	3213.310	3213.310	3213.310	3213.310	542
RiDiag	1 pc(s).	3159.100	3159.100	3159.100	3159.100	3159.100	3159.100	559

TopTherm wall-mounted cooling units Blue e, NEMA 4X

Output class 2000 – 2500 W

Model No.		Packs of	**3328.544**	**3329.544**	Page
Material	Stainless steel 1.4404 (AISI 316L)		■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2.2**	**2.55**	
Total cooling output 50/60 Hz L35 L35 kW			2.2 / 2.55	2.55 / 2.75	
Total cooling output 50/60 Hz L35 L50 kW			1.45 / 1.69	1.9 / 1.95	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm			405	405	
Height mm			1650	1650	
Depth mm			388	388	
Rated current max. A			2.8 / 3.3	3.3 / 3.4	
Start-up current A			6.8 / 7.8	6.8 / 7.6	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.92 / 1.15	1.19 / 1.39	
Operating temperature range			+10 °C...+50 °C	+10 °C...+50 °C	
Setting range			+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.4 / 2.22	2.11 / 1.97	
Refrigerant g			R134a, 900	R134a, 900	
Weight kg			81.0	84.0	
Product-specific scope of supply					
Integral electric condensate evaporation			■	■	
Accessories					
IoT interface		1 pc(s).	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	555
Door-operated switch		1 pc(s).	4127.010	4127.010	1024
Master/slave cable		1 pc(s).	3124.100	3124.100	550
Air diverter		1 pc(s).	3213.320	3213.320	542
RiDiag		1 pc(s).	3159.100	3159.100	559

Rittal – The System.

Therm software

see page 558

Wall-mounted cooling unit TopTherm Blue e, UL Type 3R/4

For indoor and outdoor

Suitable for outdoor siting

- Vandalism-protected (e-Comfort controller on the rear of the cooling unit)
- Outdoor paint finish in accordance with UL 1332
- Temperature range: -20 °C to +50 °C (in compressor mode +10 °C to +50 °C)

Optimum protection

- Protection category: UL Type 3R/4/12 and IP 56
- The cooling units provide protection against damaging influences, e.g. water and external icing
- The RiNano coating prevents the accumulation of dirt deposits on the condenser, thereby extending maintenance intervals and ensuring a constant long-term cooling output

Benefits of Blue e technology

- Energy savings of up to 45%
- Intelligent control with Comfort controller, icing protection and motor monitoring
- Eco-mode control: The evaporator coil fan cuts out as necessary, depending on the enclosure internal temperature
- Longer service life of components in the enclosure and cooling units, because efficient components such as fans and compressors run at their optimum operating point
- The integral electric condensate evaporation system means that condensate evaporates and dissipates to the ambient air via the external fan

Worldwide use

- International approvals (cULus Listed, cULus FTTA, CE and EAC)
- Worldwide service and spare parts availability

Intelligent networking

- In conjunction with the IoT interface and Blue e IoT adaptor, it is a simple matter to integrate the cooling units into Industry 4.0 environments
- Condition monitoring of up to 10 cooling units in a master/slave arrangement

TopTherm wall-mounted cooling units Blue e, UL Type 3R/4

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559

Energy-efficient Blue e wall-mounted cooling units with integral e-Comfort controller, RiNano coating on the condenser and electric condensate evaporation as standard, protection category UL Type 3R/4, 12.

Benefits:
– Suitable for outdoor siting
– Blue e technology
– May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:
– e-Comfort controller (factory setting +35 °C)

Material:
– Sheet steel

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 56

Protection category NEMA:
– UL Type 3R
– UL Type 4
– UL Type 12

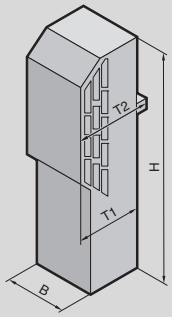
Supply includes:
– Nano-coated condenser
– Fully wired ready for connection (plug-in terminal strip)
– Connection box
– Drilling template
– Assembly parts

Please observe the product-specific scope of supply.

Note:
– Compressor cooling mode from +10 °C ambient temperature. Only the internal fan is active in the temperature range -20 °C to +10 °C.

Approvals:
Available on the Internet

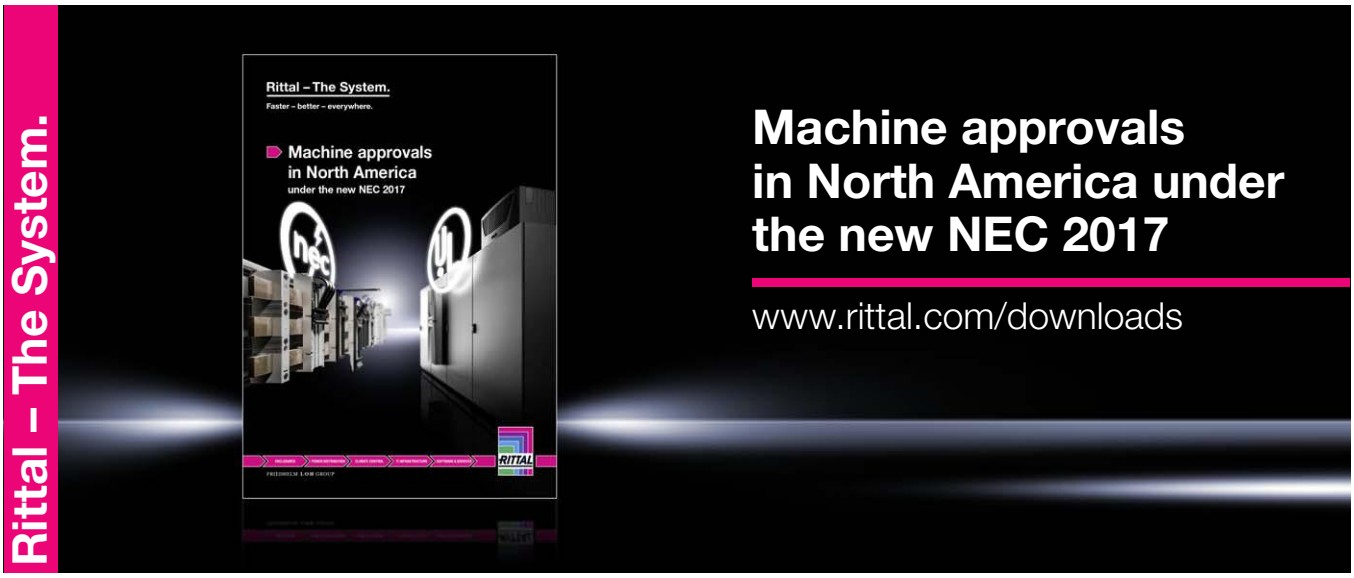
Performance diagrams:
Available on the Internet



TopTherm wall-mounted cooling units Blue e, UL Type 3R/4

Output class 500 – 2500 W

Model No.	Packs of	3303.508	3303.518	3304.508	3304.548	3305.548	3329.548	Page
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW		**0.46**	–	**1.1**	**1.15**	**1.49**	**2.55**	
Total cooling output 50/60 Hz L35 L35 kW		0.46 / 0.55	0.55	1.1 / 1.26	1.15 / 1.3	1.49 / 1.7	2.55 / 2.75	
Total cooling output 50/60 Hz L35 L50 kW		0.27 / 0.32	0.32	0.9 / 1.07	0.95 / 1.11	1.04 / 1.17	1.95 / 2.00	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	115, 1~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width (B) mm		285	285	405	405	405	405	
Height (H) mm		620	620	1020	1020	1020	1650	
Depth (T1) mm		298	298	358	358	358	388	
Installation depth of connection box (T2) mm		350	350	410	410	410	440	
Rated current max. A		2.6 / 2.6	5.7	3.9 / 4.3	2.2 / 2.1	2.5 / 2.8	3.3 / 3.4	
Start-up current A		5.1 / 6.4	11.5	12 / 14	11.5 / 12.7	12.2 / 11.3	6.8 / 7.6	
Power consumption P_{el} 50/60 Hz L35 L35 kW		0.35 / 0.42	0.42	0.62 / 0.68	0.75 / 0.78	0.65 / 0.82	1.19 / 1.39	
Operating temperature range		-20 °C...+50 °C	-20 °C...+50 °C	-20 °C...+50 °C	-20 °C...+50 °C	-20 °C...+50 °C	-20 °C...+50 °C	
Setting range		+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35		1.31 / 1.3	1.3	1.75 / 1.86	1.53 / 1.67	2.28 / 2.07	2.14 / 1.97	
Refrigerant g		R134a, 170	R134a, 170	R134a, 325	R134a, 325	R134a, 500	R134a, 900	
Weight kg		25.0	25.0	49.0	50.0	52.0	84.0	
Product-specific scope of supply								
Integral electric condensate evaporation		–	–	■	■	■	■	
Accessories								
IoT interface	1 pc(s).	3124.300	3124.300	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor	1 pc(s).	3124.310	3124.310	3124.310	3124.310	3124.310	3124.310	555
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	4127.010	1024
RiDiag	1 pc(s).	3159.100	3159.100	3159.100	3159.100	3159.100	3159.100	559
Master/slave cable	1 pc(s).	3124.100	3124.100	3124.100	3124.100	3124.100	3124.100	550
Air diverter	1 pc(s).	–	–	3213.310	3213.310	3213.310	3213.320	542
Eyebolts	4 pc(s).	4568.000	4568.000	4568.000	4568.000	4568.000	4568.000	964



Wall-mounted cooling unit Blue e+ outdoor

Energy efficiency for the outdoor sector

Suitable for outdoor siting

- Vandalism-protected enclosure (e+ controller on the rear of the cooling unit)
- For universal mounting on outdoor enclosures
- Aluminium enclosure with outdoor spray finish to UL 1332
- Temperature range: -30 °C to +60 °C

Optimum protection

- Protection category: UL type 3R/4/12 and IP 56
- The cooling units provide protection against damage e.g. from water and external icing
- The RiNano coating prevents the accumulation of dirt deposits on the condenser, thereby extending maintenance intervals and ensuring a consistent cooling output for longer

Benefits of Blue e+ technology

- Efficiency – Average 75% energy savings thanks to speed-controlled components and heat pipe technology
- Versatility – Unique multi-voltage capability supports global use
- Reliability – Component-friendly cooling helps extend the service life of all components inside the enclosure and the cooling unit
- User-friendliness – Touch display and smart interfaces support intuitive operation

Global use

- International approvals (cULus Listed, cULus FTTA, CE and EAC)
- Worldwide service and spare parts availability

Intelligent networking
In conjunction with the IoT interface, all Blue e+ cooling units can now be networked and digitalised

- Continuous monitoring of temperature levels
- Avoidance of downtime costs and consequential damage
- Automatic notification of any cooling unit malfunctions
- Asset management: Localisation and organisation of cooling units
- Remote access: Device parameters can be configured remotely

Wall-mounted cooling unit Blue e+ outdoor

Accessories for climate control Page 533 **Toptec** Page 270 **RiDiag software** Page 559

The energy-efficient wall-mounted cooling unit Blue e+ Outdoor can be used worldwide, thanks to its multi-voltage capability, and is suitable for use with Toptec project solutions, for example.

Benefits:
- Average 75% energy savings thanks to speed-regulated components and heat pipe technology
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:
- e+ controller (factory setting +35 °C)

Material:
- Aluminium AlMg3

Surface finish:
- Powder-coated
- UV-resistant pure polyester

Colour:
- RAL 7035

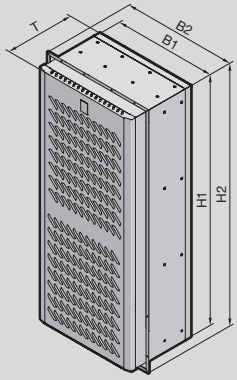
Protection category IP to IEC 60 529:
- Internal circuit IP 56

Protection category NEMA:
- UL Type 4/3R/12

Supply includes:
- Nano-coated condenser
- Integral electric condensate evaporation
- Fully wired ready for connection (plug-in terminal strip)
- Sealing frame for universal attachment to outdoor enclosures for external, partial internal and full internal mounting.
- Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet



Output class 1500 W

Model No.	Packs of	**3185.330**	Page
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW		**1.5**	
Total cooling output 50/60 Hz L35 L35 kW		1.5 / 1.5	
Total cooling output 50/60 Hz L35 L50 kW		1.2 / 1.2	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Width (B1) mm		415	
Height (H1) mm		990	
Depth (T) mm		279	
Enclosure dimensions including sealing frame and designer cover (B2 x H2 x T) mm		467 x 1042 x 279	
Dimensions to fit enclosure type		Toptec	
with height mm		≥ 1200	
with width mm		≥ 600	
Rated power input kW		0.62	
Power consumption P_{el} 50/60 Hz L35 L35 kW		0.54 / 0.54	
Operating temperature range		-30 °C...+60 °C	
Setting range		+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35		3.1 / 3.1	
Seasonal energy efficiency ratio (SEER) 50/60 Hz		6.4	
Refrigerant g		R134a, 750	
Weight kg		37.1	
Also required			
Enclosure heater		see page	531
Thermostat	1 pc(s).	3110.000	547
Hygrostat	1 pc(s).	3118.000	547
Accessories			
IoT interface	1 pc(s).	3124.300	554
Door-operated switch	1 pc(s).	4127.010	1024

TopTherm roof-mounted cooling units Blue e

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559 **Air routing** Page 540

Energy-efficient Blue e roof-mounted cooling units with integral e-Comfort controller, RiNano coating on the condenser and electric condensate evaporation as standard.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:
– e-Comfort controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Assembly parts

Note:
– The roof-mounted cooling unit 3273.500 is also suitable for office applications, thanks to its low noise level.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 500 W

Model No.		Packs of	**3382.500**	**3382.510**	**3382.600**	Page
Material	Sheet steel		■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	■	
Colour	RAL 7035		■	■	–	
	RAL 9007		–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.55**	**0.55**	**0.55**	
Total cooling output 50/60 Hz L35 L35 kW			0.55 / 0.62	0.55 / 0.62	0.55 / 0.62	
Total cooling output 50/60 Hz L35 L50 kW			0.42 / 0.48	0.42 / 0.48	0.42 / 0.48	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	
Height mm			417	417	417	
Depth mm			380	380	380	
Rated current max. A			2.3 / 2.6	4.7 / 5.4	2.3 / 2.6	
Start-up current A			9.1 / 8.8	18.2 / 15.9	9.1 / 8.8	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.27 / 0.31	0.27 / 0.31	0.27 / 0.31	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.04 / 1.96	2.04 / 1.96	2.04 / 1.96	
Refrigerant g			R134a, 300	R134a, 300	R134a, 300	
Weight kg			30.0	35.0	30.0	
Accessories						
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	555
Filter mat		3 pc(s).	3286.500	3286.500	3286.500	533
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	1024
Metal filter		1 pc(s).	3286.510	3286.510	3286.510	534
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	540
Shallow air duct system		1 pc(s).	3286.850	3286.850	3286.850	541
Air duct adaptor		1 pc(s).	3286.840	3286.840	3286.840	540
Stoppers		2 pc(s).	3286.780	3286.780	3286.780	542

Output class 750 W

Model No.		Packs of	3359.500	3359.510	3359.540	3359.600	Page
Material	Sheet steel		■	■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	■	
Colour	RAL 7035		■	■	■	–	
	RAL 9007		–	–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**0.77**	**0.77**	**0.77**	**0.77**	
Total cooling output 50/60 Hz L35 L35 kW			0.77 / 0.79	0.77 / 0.79	0.77 / 0.79	0.77 / 0.79	
Total cooling output 50/60 Hz L35 L50 kW			0.52 / 0.47	0.52 / 0.47	0.52 / 0.47	0.52 / 0.47	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	
Height mm			417	417	417	417	
Depth mm			380	380	380	380	
Rated current max. A			2.8 / 3.7	5.6 / 7.4	1.6 / 2.1	2.8 / 3.7	
Start-up current A			9.2 / 9	18.4 / 18	5.4 / 5.2	9.2 / 9	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.33 / 0.42	0.33 / 0.43	0.33 / 0.43	0.33 / 0.42	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			–	–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.28 / 1.85	2.28 / 1.82	2.28 / 1.82	2.28 / 1.85	
Refrigerant g			R134a, 400	R134a, 400	R134a, 400	R134a, 400	
Weight kg			32.0	37.0	37.0	32.0	
Accessories							
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	555
Filter mat		3 pc(s).	3286.500	3286.500	3286.500	3286.500	533
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Metal filter		1 pc(s).	3286.510	3286.510	3286.510	3286.510	534
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	540
Shallow air duct system		1 pc(s).	3286.850	3286.850	3286.850	3286.850	541
Air duct adaptor		1 pc(s).	3286.840	3286.840	3286.840	3286.840	540
Stoppers		2 pc(s).	3286.780	3286.780	3286.780	3286.780	542

Output class 1000 W

Model No.		Packs of	3383.500	3383.510	3383.540	3383.600	Page
Material	Sheet steel		■	■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	■	
Colour	RAL 7035		■	■	■	–	
	RAL 9007		–	–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1**	**1**	**1**	**1**	
Total cooling output 50/60 Hz L35 L35 kW			1 / 1.09	1 / 1.09	1 / 1.09	1 / 1.09	
Total cooling output 50/60 Hz L35 L50 kW			0.71 / 0.81	0.71 / 0.81	0.71 / 0.81	0.71 / 0.81	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	
Height mm			417	417	417	417	
Depth mm			475	475	475	475	
Rated current max. A			2.9 / 3.9	6.2 / 8.4	1.7 / 2.2	2.9 / 3.9	
Start-up current A			8.8 / 10.1	14.4 / 15.8	4.6 / 5.7	8.8 / 10.1	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.38 / 0.47	0.38 / 0.45	0.38 / 0.45	0.38 / 0.47	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			–	–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.58 / 2.28	2.58 / 2.28	2.58 / 2.28	2.58 / 2.28	
Refrigerant g			R134a, 650	R134a, 650	R134a, 650	R134a, 650	
Weight kg			40.0	46.0	46.0	40.0	
Accessories							
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	555
Filter mat		3 pc(s).	3286.500	3286.500	3286.500	3286.500	533
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Metal filter		1 pc(s).	3286.510	3286.510	3286.510	3286.510	534
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	540
Shallow air duct system		1 pc(s).	3286.850	3286.850	3286.850	3286.850	541
Air duct adaptor			–	–	–	–	540
Stoppers		2 pc(s).	3286.880	3286.880	3286.880	3286.880	542

TopTherm roof-mounted cooling units Blue e

Output class 1100 – 1500 W

Model No.		Packs of	**3273.500**	**3384.500**	**3384.510**	**3384.540**	**3384.600**	Page
Material	Sheet steel		■	■	■	■	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	–	■	
Colour	RAL 7035		■	■	■	■	–	
	RAL 9007		–	–	–	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.1**	**1.5**	**1.5**	**1.5**	**1.5**	
Total cooling output 50/60 Hz L35 L35 kW			1.1 / 1.2	1.5 / 1.65	1.5 / 1.65	1.5 / 1.65	1.5 / 1.65	
Total cooling output 50/60 Hz L35 L50 kW			0.85 / 0.87	1.15 / 1.3	1.15 / 1.3	1.15 / 1.3	1.15 / 1.3	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	597	
Height mm			417	417	417	417	417	
Depth mm			475	475	475	475	475	
Rated current max. A			5.2 / 5.4	4.2 / 4.9	8.7 / 10.1	2.5 / 2.9	4.2 / 4.9	
Start-up current A			15.5 / 16.5	14.7 / 13.6	27.2 / 23.2	8.7 / 7.6	14.7 / 13.6	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.51 / 0.53	0.67 / 0.77	0.67 / 0.76	0.67 / 0.76	0.67 / 0.77	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			+50 °C	–	–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.12 / 2.23	2.24 / 2.13	2.24 / 2.13	2.24 / 2.13	2.24 / 2.13	
Refrigerant g			R134a, 700	R134a, 700	R134a, 700	R134a, 700	R134a, 700	
Weight kg			42.0	41.0	47.0	47.0	41.0	
Accessories								
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	3124.310	555
Filter mat		3 pc(s).	3286.500	3286.500	3286.500	3286.500	3286.500	533
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	1024
Metal filter		1 pc(s).	3286.510	3286.510	3286.510	3286.510	3286.510	534
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	3286.870	540
Shallow air duct system		1 pc(s).	3286.850	3286.850	3286.850	3286.850	3286.850	541
Air duct adaptor			–	–	–	–	–	540
Stoppers		2 pc(s).	3286.880	3286.880	3286.880	3286.880	3286.880	542

Output class 2000 W

Model No.		Packs of	**3385.500**	**3385.510**	**3385.540**	**3385.600**	**3385.640**	Page
Material	Sheet steel		■	■	■	–	–	
	Stainless steel 1.4301 (AISI 304)		–	–	–	■	■	
Colour	RAL 7035		■	■	■	–	–	
	RAL 9007		–	–	–	■	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**2**	**2**	**2**	**2**	**2**	
Total cooling output 50/60 Hz L35 L35 kW			2 / 2.14	2 / 2.14	2 / 2.14	2 / 2.14	2 / 2.14	
Total cooling output 50/60 Hz L35 L50 kW			1.41 / 1.51	1.41 / 1.51	1.41 / 1.51	1.41 / 1.51	1.41 / 1.51	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	115, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	400, 2~, 50/60	
Width mm			597	597	597	597	597	
Height mm			417	417	417	417	417	
Depth mm			475	475	475	475	475	
Rated current max. A			5.9 / 6.3	13.3 / 13.5	3.5 / 3.7	5.9 / 6.3	3.5 / 3.7	
Start-up current A			19.7 / 17.9	42.2 / 31.1	11.7 / 11.7	19.7 / 17.9	11.7 / 11.7	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.95 / 1.14	0.95 / 1.17	0.95 / 1.17	0.95 / 1.14	0.95 / 1.17	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			–	–	–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.09 / 1.88	2.09 / 1.88	2.09 / 1.88	2.09 / 1.88	2.09 / 1.88	
Refrigerant g			R134a, 900	R134a, 900	R134a, 900	R134a, 900	R134a, 900	
Weight kg			42.0	48.0	48.0	42.0	48.0	
Accessories								
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	3124.310	555
Filter mat		3 pc(s).	3286.500	3286.500	3286.500	3286.500	3286.500	533
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	1024
Metal filter		1 pc(s).	3286.510	3286.510	3286.510	3286.510	3286.510	534
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	3286.870	540
Shallow air duct system		1 pc(s).	3286.850	3286.850	3286.850	3286.850	3286.850	541
Air duct adaptor			–	–	–	–	–	540
Stoppers		2 pc(s).	3286.880	3286.880	3286.880	3286.880	3286.880	542

TopTherm roof-mounted cooling units Blue e

Output class 3000 – 4000 W

Model No.		Packs of	**3386.540**	**3386.640**	**3387.540**	**3387.640**	Page
Material	Sheet steel		■	–	■	–	
	Stainless steel 1.4301 (AISI 304)		–	■	–	■	
Colour	RAL 7035		■	–	■	–	
	RAL 9007		–	■	–	■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**3**	**3**	**3.8**	**3.8**	
Total cooling output 50/60 Hz L35 L35 kW			3 / 3.3	3 / 3.3	3.8 / 4	3.8 / 4	
Total cooling output 50/60 Hz L35 L50 kW			2.2 / 2.5	2.2 / 2.5	3.05 / 3.3	3.05 / 3.3	
Rated operating voltage V, ~, Hz			400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm			796	796	796	796	
Height mm			470	470	470	470	
Depth mm			580	580	580	580	
Rated current max. A			3.4 / 3.4	3.4 / 3.4	3.9 / 3.9	3.9 / 3.9	
Start-up current A			8 / 9	8 / 9	17 / 19	17 / 19	
Power consumption P_{el} 50/60 Hz L35 L35 kW			1.17 / 1.48	1.17 / 1.48	1.59 / 2.03	1.59 / 2.03	
Operating temperature range			+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Operating temperature (max.) 60 Hz			–	–	–	–	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.56 / 2.23	2.56 / 2.23	2.38 / 1.97	2.38 / 1.97	
Refrigerant g			R134a, 1600	R134a, 1600	R134a, 1800	R134a, 1800	
Weight kg			70.0	70.0	77.0	77.0	
Accessories							
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor		1 pc(s).	3124.310	3124.310	3124.310	3124.310	555
Filter mat		3 pc(s).	3286.600	3286.600	3286.600	3286.600	533
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Metal filter		1 pc(s).	3286.610	3286.610	3286.610	3286.610	534
Air duct system		1 pc(s).	3286.970	3286.970	3286.970	3286.970	540
Shallow air duct system			–	–	–	–	541
Air duct adaptor			–	–	–	–	540
Stoppers		2 pc(s).	3286.980	3286.980	3286.980	3286.980	542

Rittal – The System.

Blue e IoT adaptor

see page 555

VX25 Blue e+ integration solution/ Blue e+ roof-mounted cooling units

With revolutionary efficiency

Time and cost savings

- Plug and play: Cooling unit, door limit switches and cabling are pre-installed and ready to connect
- The cooling unit pulls forwards easily for maintenance purposes

Comfort

- Intuitive operation with touch display

Optimum data quality

- All cooling solutions are available in duplicate – real and digital. Thanks to the digital twin, planning, ordering, machining and much more can be carried out by the person who knows your company the best: You.

Efficiency

- High level of energy efficiency, also when used as an autonomous roof-mounted cooling unit

Ready for Industry 4.0

- Digitalisation and networking offer huge opportunities for every company. With the IoT interface (optional), Rittal cooling solutions are easily connected to Industry 4.0 environments.

Blue e+ roof-mounted cooling unit

Accessories for climate control Page 533 **Therm software** Page 558 **RiDiag software** Page 559 **IoT interface** Page 554

Benefits:
- Average 75% energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:
- e+ controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
- External circuit IP 54 with pleated filter
- Internal circuit IP 54 with pleated filter

Supply includes:
- Blue e+ roof-mounted cooling unit
- Pleated filter
- Fully wired ready for connection
- Assembly parts
- Condensate hose (3 m)

Optional:
- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Note:
- Only suitable for mounting on enclosures with minimum dimensions (W x D) 800 x 600 mm
- Operation without a pleated filter is inadmissible
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 1300 W

Model No.		Packs of	**3185.730**	Page
Material	Sheet steel		■	
Colour	RAL 7035		■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.3**	
Total cooling output 50/60 Hz L35 L35 kW			1.3 / 1.3	
Total cooling output 50/60 Hz L35 L50 kW			0.76 / 0.76	
Rated operating voltage V, ~, Hz			110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Width mm			700	
Height mm			308	
Depth mm			560	
Rated power input kW			0.75	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.67 / 0.67	
Operating temperature range			-20 °C...+55 °C	
Setting range			+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.04 / 2.04	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			5.3	
Refrigerant g			R134a, 590	
Weight kg			38.0	
Accessories				
IoT interface		1 pc(s).	3124.300	554
Door-operated switch		1 pc(s).	4127.010	1024
Pleated filter		3 pc(s).	3285.700	536
Temperature sensor		1 pc(s).	3124.400	549
Display frame		1 pc(s).	3355.700	557
Electrical condensate evaporation		1 pc(s).	3355.720	543
RiDiag		1 pc(s).	3159.300	559

VX25 Blue e+ integration solution

Accessories for climate control Page 533 **RiDiag software** Page 559 **Blue e+ roof-mounted cooling unit** Page 504 **IoT interface** Page 554

Benefits:
- The perfect symbiosis of the VX25 baying enclosure system and Blue e+ cooling unit
- The cooling unit is easily pulled out forwards for maintenance purposes
- No assembly work required – the cooling unit, door-operated switch and connection cabling are installed ready-to-connect
- Cooling unit offers all the benefits of Blue e+ Technology

Temperature control:
- e+ controller (factory setting +35 °C)

Protection category IP to IEC 60 529:
- External circuit IP 54 with pleated filter
- Internal circuit IP 54 with pleated filter

Supply includes:
- Basic enclosure VX25, door, roof, rear panel, side panels, gland plates, mounting plate
- Lock: 3 mm double-bit
- Integral door-operated switch
- Integral Blue e+ cooling unit
- Electric condensate evaporator
- Pleated filter
- Condensate hose (3 m)

Optional:
- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Note:
- Operation without a pleated filter is inadmissible
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 1300 W

Model No.		Packs of	**3185.030**	Page
Material	Sheet steel		■	
Colour	RAL 7035		■	
Total cooling output 50 Hz L35 L35 to DIN EN 14511 kW			**1.3**	
Total cooling output 50/60 Hz L35 L35 kW			1.3 / 1.3	
Total cooling output 50/60 Hz L35 L50 kW			0.76 / 0.76	
Rated operating voltage V, ~, Hz			110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Width mm			800	
Height mm			2200	
Depth mm			600	
Mounting plate width mm			699	
Mounting plate height mm			1696	
Rated power input kW			0.75	
Power consumption P_{el} 50/60 Hz L35 L35 kW			0.67 / 0.67	
Operating temperature range			-20 °C...+55 °C	
Setting range			+20 °C...+50 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35			2.04 / 2.04	
Seasonal energy efficiency ratio (SEER) 50/60 Hz			5.3	
Refrigerant g			R134a, 590	
Weight kg			180.0	
Accessories				
IoT interface		1 pc(s).	3124.300	554
Pleated filter		3 pc(s).	3285.700	536
Temperature sensor		1 pc(s).	3124.400	549
Display frame		1 pc(s).	3355.700	557

Modular climate control concept – cooling module Blue e

Accessories for climate control Page 533 **VX25 enclosures** Page 116 **Therm software** Page 558 **RiDiag software** Page 559

All cooling modules may be individually combined with any climate control door. The cooling modules are equipped with energy-efficient Blue e technology, with integral e-Comfort controller, RiNano coating on the condenser and electric condensate evaporation as standard.

Benefits:
– May be linked to the IoT interface via the Blue e IoT adaptor

Temperature control:
– e-Comfort controller (factory setting +35 °C)

Material:
– Sheet steel

Colour:
– RAL 7035

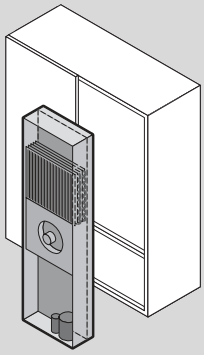
Protection category IP to IEC 60 529:
– External circuit IP 34
– Internal circuit IP 54

Supply includes:
– Cooling module prepared for installation in climate control door
– Nano-coated condenser
– Integral electric condensate evaporation
– Fully wired ready for connection (plug-in terminal strip)

Note:
– A base/plinth with a height of 100 or 200 mm is required for efficient operation

Approvals:
Available on the Internet

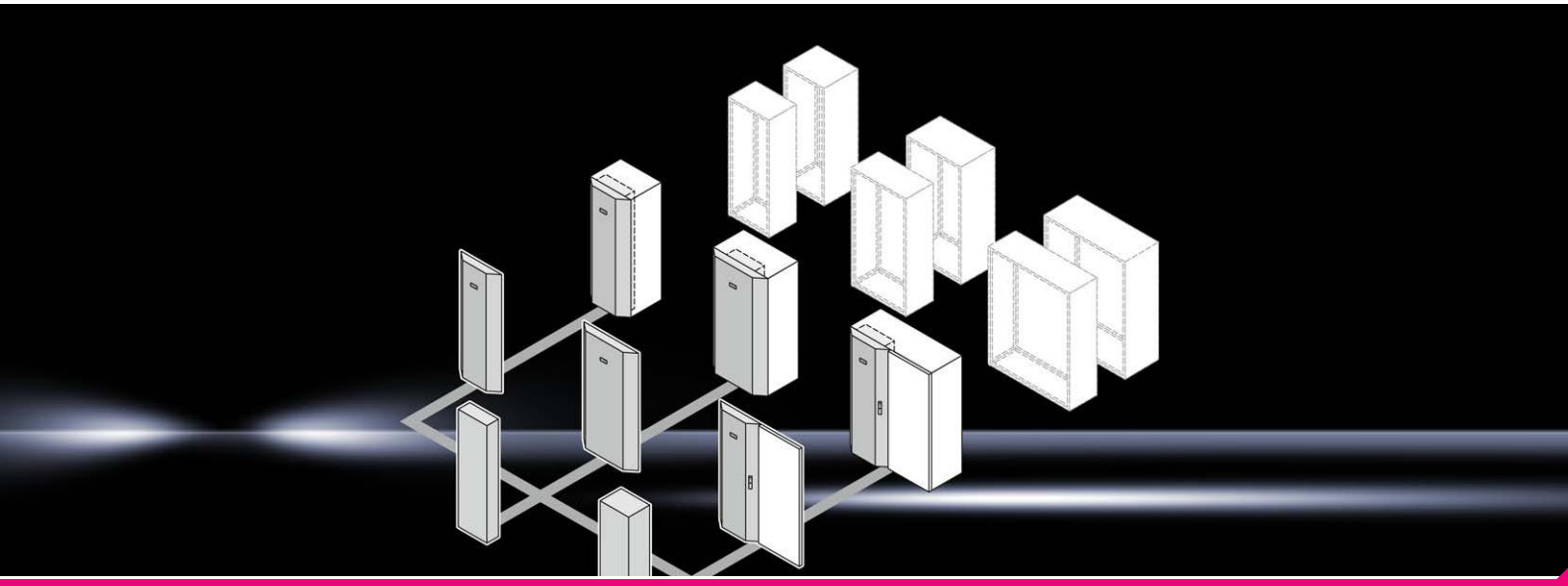
Performance diagrams:
Available on the Internet



Output class 1500 – 2500 W

Model No.	Packs of	**3307.700**	**3307.740**	**3310.700**	**3310.740**	Page
Rated operating voltage V, ~, Hz		230, 1~, 50/60	400, 3~, 50 460, 3~, 60	230, 1~, 50/60	400, 3~, 50 460, 3~, 60	
Total cooling output 50/60 Hz L35 L35 kW		**1.5 / 1.55**	**1.5 / 1.55**	**2.5 / 2.52**	**2.5 / 2.5**	
Total cooling output 50/60 Hz L35 L50 kW		0.85 / 0.9	0.93 / 0.95	1.62 / 1.76	1.76 / 1.8	
Rated current max. A		6 / 6.1	2.5 / 2.7	7.6 / 9.4	3.5 / 3.7	
Start-up current A		22 / 24	8.5 / 9.2	22 / 24	13 / 14	
Power consumption P_{el} 50/60 Hz L35 L35 kW		0.85 / 1.05	0.79 / 1	1.31 / 1.52	1.13 / 1.48	
Operating temperature range		+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	+10 °C...+55 °C	
Setting range		+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Energy efficiency ratio (EER) 50/60 Hz L35 L35		1.76 / 1.48	1.9 / 1.55	1.91 / 1.66	2.21 / 1.69	
Refrigerant g		R134a, 700	R134a, 700	R134a, 1175	R134a, 1175	
Weight kg		68.0	68.0	73.0	72.0	
Also required						
Modular climate control concept – climate control door VX25		see page	see page	see page	see page	507
Accessories						
IoT interface	1 pc(s).	3124.300	3124.300	3124.300	3124.300	554
Blue e IoT adaptor	1 pc(s).	3124.310	3124.310	3124.310	3124.310	555
Master/slave cable	1 pc(s).	3124.100	3124.100	3124.100	3124.100	550
Door-operated switch	1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024

Modular climate control concept – climate control door VX25



Accessories for climate control Page 533 **VX25 enclosures** Page 116 **Therm software** Page 558

Sheet steel climate control doors for the installation of climate control module types SK 3307.7XX to 3310.7XX. The climate control doors fit perfectly with the overall design of the enclosure.

Material:
– Sheet steel

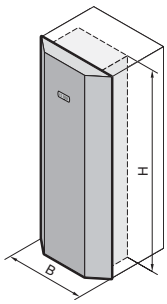
Colour:
– RAL 7035

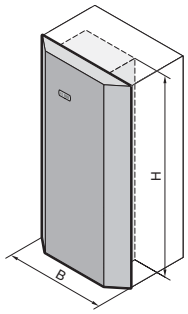
Supply includes:
– Climate control door without preconfigured cooling module
– 180° hinges, door opening angle approx. 130°

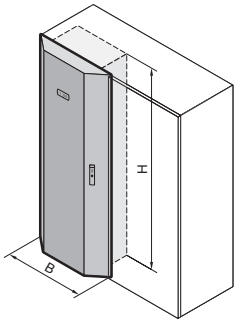
Note:
– To fit VX enclosures
– For 1200 mm wide VX enclosures, the existing hinged door may be used, irrespective of the device position (left or right)

Approvals:
Available on the Internet

for installing cooling modules







Model No.	Packs of	**3201.800**	**3201.810**	**3201.820**	**3201.830**	**3201.840**	**3201.850**	Page
Dimensions to fit enclosure type		VX	VX	VX	VX	VX	VX	
with height mm		1800	2000	1800	2000	1800	2000	
with width mm		600 1200	600 1200	800	800	600 1200	600 1200	
Unit positioned on the left		–	–	–	–	■	■	
Note on Model No.		R/h door hinge	R/h door hinge	R/h door hinge	R/h door hinge	L/h door hinge	L/h door hinge	
Weight kg		19.0	20.0	27.0	31.0	19.0	22.0	
Also required								
Modular climate control concept - cooling module Blue e		see page	see page	see page	see page	see page	see page	506
Accessories								
Metal filter	1 pc(s).	3284.210	3284.210	3284.210	3284.210	3284.210	3284.210	534
Comfort handle VX	1 pc(s).	8618.250	8618.250	8618.250	8618.250	8618.250	8618.250	937
Ride-up roller	10 pc(s).	–	8618.420	–	8618.420	–	8618.420	956

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Faster – better – everywhere.

Liquid cooling

Air/water heat exchangers

Wall-mounted ..... 300 – 600 W 510
Wall-mounted ..... 950 – 1250 W 511
Wall-mounted ..... 2000 – 2800 W 512
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Wall-mounted ..... 4500 – 5000 W 513
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Roof-mounted ..... 1875 – 3000 W 516
Roof-mounted ..... 4000 W 517

Liquid Cooling Package

LCP Rack Industry ..... 10000 W 518

Chillers

TopTherm, roof-mounted ..... 1000 – 1500 W 519

Product advantages 520
Blue e+ ..... 2500 – 5500 W 522

Product advantages 524
Blue e ..... 11000 – 15000 W 526
Blue e ..... 20000 – 25000 W 527

VX25 TopTherm ..... 8000 – 12000 W 528
VX25 TopTherm ..... 16000 – 25000 W 529

DGUV Test

NV 17040

Hygiene geprüft
hygiene tested

dguv.de/pruefzeichen

The DGUV test certificate applies to HD air/water heat exchangers.

Air/water heat exchangers

Accessories for climate control Page 533 **Chillers** Page 519 **Therm software** Page 558

For use in harsh environments and temperature ranges up to +70 °C. User-friendly assembly plus flexible water connection options. External mounting or full internal mounting are supported.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Fully wired ready for connection
– Drilling template
– Sealing and assembly parts

Note:
– Integral non-return valve for version with e-Comfort controller

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 300 – 600 W, wall-mounted

Model No.		Packs of	**3212.024**	**3212.230**	**3363.100**	**3363.500**	**3214.100**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	■	■	■	
Temperature control	Basic controller (factory setting +35 °C)		–	–	■	–	–	
	e-Comfort controller (factory setting +35 °C)		–	–	–	■	–	
	Thermostat-controlled magnetic valve		–	–	–	–	■	
Total cooling output L35 W10, 200 l/h kW			**0.3**	**0.3**	–	–	**0.6**	
Total cooling output L35 W10, 400 l/h kW			–	–	**0.5**	**0.5**	**0.7**	
Power consumption P_{el} 50/60 Hz W			–	23 / 27	37 / 38	37 / 38	36 / 37	
Power consumption P_{el} W			26	–	–	–	–	
Rated operating voltage V			24 (DC)	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			150	150	280	280	200	
Height mm			300	300	550	550	500	
Depth mm			85	85	120	120	100	
Rated current max. A			1.2	0.11 / 0.13	0.18 / 0.18	0.18 / 0.18	0.17 / 0.18	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			–	–	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		–	–	■	■	■	
	G ⅜" external thread		–	–	■	■	–	
	⅜" connector sleeve		■	■	–	–	–	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			–	280 / 310	290 / 345	290 / 345	280 / 310	
Air throughput of fans (unimpeded air flow), Internal circuit with DC m^3/h			250	–	–	–	–	
Weight as delivered kg			3.2	3.2	8.0	8.0	7.0	
Accessories								
Condensate hose		1 pc(s).	3301.610	3301.610	3301.612	3301.612	3301.612	544
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	4127.010	1024
Toroidal transformer			–	see page	see page	see page	see page	550
Flow regulator valve			see page	see page	see page	see page	see page	545

Output class 950 – 1250 W, wall-mounted

Model No.		Packs of	**3364.504**	**3364.100**	**3364.500**	**3215.100**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		–	■	■	■	
	Water-carrying parts, stainless steel (1.4571)		■	–	–	–	
Temperature control	Basic controller (factory setting +35 °C)		–	■	–	–	
	e-Comfort controller (factory setting +35 °C)		■	–	■	–	
	Thermostat-controlled magnetic valve		–	–	–	■	
Total cooling output L35 W10, 200 l/h kW			–	–	–	**1.25**	
Total cooling output L35 W10, 400 l/h kW			**0.95**	**1**	**1**	**1.3**	
Power consumption P_{el} 50/60 Hz W			37 / 38	37 / 38	37 / 38	83 / 85	
Power consumption P_{el}			–	–	–	–	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			280	280	280	200	
Height mm			550	550	550	950	
Depth mm			120	120	120	100	
Rated current max. A			0.18 / 0.18	0.18 / 0.18	0.18 / 0.18	0.38 / 0.4	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		■	■	■	–	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			290 / 345	290 / 345	290 / 345	680 / 735	
Air throughput of fans (unimpeded air flow), Internal circuit with DC			–	–	–	–	
Weight as delivered kg			9.0	9.0	9.0	13.0	
Accessories							
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Toroidal transformer			see page	see page	see page	see page	550
Flow regulator valve			see page	see page	see page	see page	545

Rittal – The System.

Connection set

see page 545

Air/water heat exchangers

Output class 2000 – 2800 W, wall-mounted

Model No.		Packs of	**3373.100**	**3373.140**	**3373.500**	**3374.504**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	■	–	
	Water-carrying parts, stainless steel (1.4571)		–	–	–	■	
Temperature control	Basic controller (factory setting +35 °C)		■	■	–	–	
	e-Comfort controller (factory setting +35 °C)		–	–	■	■	
Total cooling output L35 W10, 200 l/h			–	–	–	–	
Total cooling output L35 W10, 400 l/h kW			**2**	**2**	**2**	**2.8**	
Power consumption P_{el} 50/60 Hz W			110 / 140	110 / 140	110 / 140	169 / 232	
Power consumption P_{el}			–	–	–	–	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			400	400	400	400	
Height mm			950	950	950	950	
Depth mm			145	145	145	145	
Rated current max. A			0.49 / 0.61	0.28 / 0.35	0.49 / 0.61	0.76 / 1.01	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		■	■	■	■	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			880 / 950	880 / 950	880 / 950	1150 / 1300	
Air throughput of fans (unimpeded air flow), Internal circuit with DC			–	–	–	–	
Weight as delivered kg			20.0	23.0	20.0	23.0	
Accessories							
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Toroidal transformer			–	–	–	–	550
Flow regulator valve			see page	see page	see page	see page	545

Output class 3000 W, wall-mounted

Model No.		Packs of	**3374.100**	**3374.140**	**3374.500**	**3374.540**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	■	■	
Temperature control	Basic controller (factory setting +35 °C)		■	■	–	–	
	e-Comfort controller (factory setting +35 °C)		–	–	■	■	
Total cooling output L35 W10, 200 l/h			–	–	–	–	
Total cooling output L35 W10, 400 l/h kW			**3**	**3**	**3**	**3**	
Power consumption P_{el} 50/60 Hz W			169 / 232	169 / 232	169 / 232	169 / 232	
Power consumption P_{el}			–	–	–	–	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	400, 2~, 50/60	230, 1~, 50/60	400, 2~, 50/60	
Width mm			400	400	400	400	
Height mm			950	950	950	950	
Depth mm			145	145	145	145	
Rated current max. A			0.76 / 1.01	0.44 / 0.58	0.76 / 1.01	0.44 / 0.58	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		■	■	■	■	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			1150 / 1300	1150 / 1300	1150 / 1300	1150 / 1300	
Air throughput of fans (unimpeded air flow), Internal circuit with DC			–	–	–	–	
Weight as delivered kg			23.0	26.0	23.0	26.0	
Accessories							
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Toroidal transformer			–	–	–	–	550
Flow regulator valve			see page	see page	see page	see page	545

Output class 4500 – 5000 W, wall-mounted

Model No.		Packs of	**3375.504**	**3375.100**	**3375.500**	**3375.540**	Page
Design	Water carrying parts copper/brass (Cu/CuZn)		–	■	■	■	
	Water-carrying parts, stainless steel (1.4571)		■	–	–	–	
Temperature control	Basic controller (factory setting +35 °C)		–	■	–	–	
	e-Comfort controller (factory setting +35 °C)		■	–	■	■	
Total cooling output L35 W10, 200 l/h			–	–	–	–	
Total cooling output L35 W10, 400 l/h kW			**4.5**	**5**	**5**	**5**	
Power consumption P_{el} 50/60 Hz W			172 / 172	172 / 172	172 / 172	183 / 183	
Power consumption P_{el}			–	–	–	–	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	400, 2~, 50/60	
Width mm			450	450	450	450	
Height mm			1400	1400	1400	1400	
Depth mm			220	220	220	220	
Rated current max. A			1.45 / 1.45	1.45 / 1.45	1.45 / 1.45	0.8 / 0.8	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		■	■	■	■	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			1500 / 1500	1500 / 1500	1500 / 1500	1500 / 1500	
Air throughput of fans (unimpeded air flow), Internal circuit with DC			–	–	–	–	
Weight as delivered kg			39.0	39.0	39.0	42.0	
Accessories							
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Toroidal transformer			–	–	–	–	550
Flow regulator valve			see page	see page	see page	see page	545

Air/water heat exchangers

Accessories for climate control Page 533 **Chillers** Page 519 **Therm software** Page 558

For use in harsh environments and temperature ranges up to +70 °C. With thermostatically controlled magnetic valve.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Sealing and assembly parts

Note:
– Use 3-pole miniature circuit-breaker

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 7000 W, wall-mounted

Model No.		Packs of	**3216.480**	Page
Temperature control	Thermostat-controlled magnetic valve		■	
Total cooling output L35 W10, 500 l/h kW			**7**	
Total cooling output L35 W20, 500 l/h kW			**4.5**	
Rated operating voltage V, ~, Hz			400, 3~, 50/60 480, 3~, 60	
Width mm			450	
Height mm			1800	
Depth mm			300	
Rated current max. A			1.4 / 1.6	
Operating temperature range			+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	
Water connection	½" connector sleeve		■	
	G ⅜" external thread		■	
Permissible operating pressure (p) bar			1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			4075 / 4840	
Weight as delivered kg			79.0	
Accessories				
Door-operated switch		1 pc(s).	4127.010	1024
Condensate hose		1 pc(s).	3301.612	544
Flow regulator valve			see page	545
Connection set		1 pc(s).	3201.990	545
Cooling medium (ready-mixed)			see page	545

Accessories for climate control Page 533 **Chillers** Page 519 **Therm software** Page 558 **Hygienic Design HD** Page 217

Air/water heat exchanger for hygienically sensitive production zones in the food and consumables industry – the optimum addition to the Rittal Hygienic Design range. The cleaning-friendly design reduces the risk of contamination and ensures food safety.

Benefits:
- Easy-to-clean, hygienic design
- A roof tilt of 30° prevents objects from being deposited on it, and allows liquids to run off quickly
- All-round external, replaceable silicone seal prevents the accumulation of dirt between the enclosure and the air/water heat exchanger

Material:
- Enclosure: Stainless steel 1.4301 (AISI 304)

Surface finish:
- Enclosure: Brushed, grain 400, peak-to-valley height < 0.8 µm

Protection category IP to IEC 60 529:
- IP 56/59

Protection category NEMA:
- NEMA 4X

Cooling medium:
- Water (see Internet for specifications)

Supply includes:
- Fully wired ready for connection
- Drilling template
- Sealing and assembly parts

Note:
- To achieve a protection category of IP 66/69 to IEC 60 529, the ingress of leakage air through the condensate discharge opening must be completely prevented

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 600 – 1200 W, wall-mounted HD

Model No.		Packs of	**3214.700**	**3215.700**	Page
Temperature control	Thermostat-controlled magnetic valve		■	■	
Total cooling output L35 W10, 200 l/h kW			**0.6**	**1**	
Total cooling output L35 W10, 400 l/h kW			**0.65**	**1.2**	
Power consumption P_{el} 50/60 Hz W			33 / 34	77 / 104	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	
Width mm			220	215	
Height mm			526	982	
Depth mm			100	100	
Rated current max. A			0.16 / 0.14	0.38 / 0.47	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+60 °C	+20 °C...+60 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	G ⅜" external thread		■	■	
Permissible operating pressure (p) bar			1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			280 / 310	680 / 735	
Weight as delivered kg			6.0	14.0	
Accessories					
Toroidal transformer			see page	see page	550
Cooling medium (ready-mixed)			see page	see page	545

Air/water heat exchangers

Accessories for climate control Page 533 **Chillers** Page 519 **Air routing** Page 540

For use in harsh environments and temperature ranges up to +70 °C. The air/water heat exchanger is assembled on the roof of the enclosure using flexible water connection options.

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Fully wired ready for connection (plug-in terminal strip)
– Drilling template
– Sealing mat
– Assembly parts

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 1875 – 3000 W, roof-mounted

Model No.		Packs of	**3209.504**	**3209.100**	**3209.500**	**3210.504**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		–	■	■	–	
	Water-carrying parts, stainless steel (1.4571)		■	–	–	■	
Temperature control	Basic controller (factory setting +35 °C)		–	■	–	–	
	e-Comfort controller (factory setting +35 °C)		■	–	■	■	
Total cooling output L35 W10, 400 l/h kW			**1.87**	**2.5**	**2.5**	**3**	
Power consumption P_{el} 50/60 Hz W			95 / 110	95 / 110	95 / 110	100 / 120	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	
Width mm			597	597	597	597	
Height mm			417	417	417	417	
Depth mm			475	475	475	475	
Rated current max. A			0.4 / 0.48	0.4 / 0.48	0.4 / 0.48	0.44 / 0.5	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		■	■	■	■	
	G ⅜" external thread		■	■	■	■	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			925 / 1030	925 / 1030	925 / 1030	815 / 925	
Weight as delivered kg			23.5	23.5	23.5	25.5	
Accessories							
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	4127.010	1024
Master/slave cable		1 pc(s).	3124.100	–	3124.100	3124.100	550
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	3286.870	540
Stoppers		2 pc(s).	3286.880	3286.880	3286.880	3286.880	542
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	3301.612	544
Cooling medium (ready-mixed)			see page	see page	see page	see page	545

Output class 4000 W, roof-mounted

Model No.		Packs of	**3210.100**	**3210.500**	**3210.540**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	■	
Temperature control	Basic controller (factory setting +35 °C)		■	–	–	
	e-Comfort controller (factory setting +35 °C)		–	■	■	
Total cooling output L35 W10, 400 l/h kW			**4**	**4**	**4**	
Power consumption P_{el} 50/60 Hz W			100 / 120	100 / 120	102 / 125	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	400, 2~, 50/60	
Width mm			597	597	597	
Height mm			417	417	417	
Depth mm			475	475	475	
Rated current max. A			0.44 / 0.5	0.44 / 0.5	0.25 / 0.3	
Operating temperature range			+1 °C...+70 °C	+1 °C...+70 °C	+1 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+1 °C...+30 °C	+1 °C...+30 °C	+1 °C...+30 °C	
Water connection	½" connector sleeve		■	■	■	
	G ⅜" external thread		■	■	■	
Permissible operating pressure (p) bar			1 - 10	1 - 10	1 - 10	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			815 / 925	815 / 925	815 / 925	
Weight as delivered kg			25.5	25.5	29.5	
Accessories						
Door-operated switch		1 pc(s).	4127.010	4127.010	4127.010	1024
Master/slave cable		1 pc(s).	–	3124.100	3124.100	550
Air duct system		1 pc(s).	3286.870	3286.870	3286.870	540
Stoppers		2 pc(s).	3286.880	3286.880	3286.880	542
Condensate hose		1 pc(s).	3301.612	3301.612	3301.612	544
Cooling medium (ready-mixed)			see page	see page	see page	545

Rittal – The System.

VX25 TopTherm chillers

see page 528

Liquid Cooling Package

Accessories for climate control Page 533 **Chillers** Page 519 **Therm software** Page 558

Air/water heat exchanger in the bayed enclosure system VX25. To fit 600 or 800 mm deep and 2,000 mm high VX25 enclosures. Air outlet either with 5 kW on each side or 10 kW on one side only. Flexible options for water connection on the top or bottom of the unit.

Temperature control:
– e-Comfort controller (factory setting +35 °C)

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Cooling medium:
– Water (see Internet for specifications)

Supply includes:
– Cooling unit ready for connection, wired to terminal strip
– Front door with display
– Rear panel
– Multilingual documentation

Note:
– Bayable by screw-fastening at the sides

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 10000 W, LCP rack industry

Model No.		Packs of	**3378.300**	**3378.380**	Page
Design	Water-carrying parts, copper/brass (Cu/CuZn)		■	■	
Total cooling output L35 W10, 2000 l/h kW			**9.5**	**9.5**	
Power consumption P_{el} 50/60 Hz W			350 / 350	350 / 350	
Rated operating voltage V, ~, Hz			230, 1~, 50/60	230, 1~, 50/60	
Width mm			300	300	
Height mm			2000	2000	
Depth mm			600	800	
Rated current max. A			2.65 / 2.62	2.65 / 2.62	
Operating temperature range			+5 °C...+70 °C	+5 °C...+70 °C	
Setting range			+20 °C...+55 °C	+20 °C...+55 °C	
Water inlet temperature			+7 °C...+30 °C	+7 °C...+30 °C	
Water connection	G ¾" internal thread		■	■	
Permissible operating pressure (p) bar			1 - 6	1 - 6	
Air throughput of fans (unimpeded air flow), Internal circuit 50/60 Hz m^3/h			1950 / 1950	1950 / 1950	
Weight as delivered kg			106.0	115.0	
Accessories					
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm		2 pc(s).	8640.000	8640.000	881
Base/plinth trim panels, sides, 100 mm		2 pc(s).	8640.033	8640.034	882
Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm		2 pc(s).	8640.020	8640.020	881
Base/plinth trim panels, sides, 200 mm		2 pc(s).	8640.043	8640.044	882
Baying connector, external		6 pc(s).	8617.502	8617.502	912
Side panel, screw-fastened, sheet steel		2 pc(s).	8106.245	8108.245	901
Condensate hose		1 pc(s).	3301.612	3301.612	544
EC speed control		1 pc(s).	3235.440	3235.440	548
Comfort handle VX		1 pc(s).	8618.250	8618.250	937
Master/slave cable		1 pc(s).	3124.100	3124.100	550
Cooling medium (ready-mixed)			see page	see page	545

Accessories for climate control Page 533 **Chiller configurator** Page 558

Design:
- Compact, modular layout of the refrigeration components
- Nano-coated condenser
- Pump to convey the medium

Benefits:
- Precise temperature control, based on microprocessor technology
- Collective fault signal with floating contact
- One version for two frequencies = international compatibility

Temperature control:
- Microcontroller control (factory setting +20 °C)

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 44 (electrics)

Supply includes:
- Complete unit ready for connection
- Multilingual documentation including functional diagram and wiring plans

Characteristic curves of pump:
Available on the Internet

Approvals:
Available on the Internet

Output class 1000 – 1500 W

Model No.	Packs of	**3318.610**	**3319.610**	Page
Total cooling output at T_w = 10 °C/T_u = 32 °C kW		0.8 / 0.9	1.2 / 1.3	
Total cooling output at T_w = 18 °C/T_u = 32 °C kW		**1 / 1.1**	**1.5 / 1.7**	
Power consumption P_{el} 50/60 Hz kW		0.69 / 1.07	0.86 / 0.99	
Rated operating voltage V, ~, Hz		230, 1~, 50/60	230, 1~, 50/60	
Width mm		600	600	
Height mm		400	400	
Depth mm		455	455	
Rated current max. A		5.1 / 5.6	5.7 / 5.6	
Operating temperature range		+10 °C...+43 °C	+10 °C...+43 °C	
Refrigerant g		R134a, 975	R134a, 975	
Water connection G ½" internal thread		■	■	
Pump pressure bar		2.5	2.5	
Volumetric flow (cooling medium) l/min		4 / 6	4 / 6	
Air throughput of fans (unimpeded air flow), 50/60 Hz m^3/h		900 / 900	900 / 900	
Temperature hysteresis		± 2 K	± 2 K	
Temperature of liquid		+10 °C...+30 °C	+10 °C...+30 °C	
Water circuit version		hermetically open	hermetically open	
Tank		PP plastic	PP plastic	
Tank capacity l		2.5	2.5	
Weight as delivered kg		48.0	51.0	
Also required				
Cooling medium (ready-mixed)		see page	see page	545
Accessories				
Metal filter	1 pc(s).	3286.510	3286.510	534

Blue e+ chillers with the e+ principle

Forward-looking climate control

- Active cooling circuit with speed-controlled components for demand-based cooling
- High control accuracy thanks to DC inverter technology with two regulating modes
- Excellent operational reliability thanks to integrated flow sensor, overflow valve and electronic fill level monitoring
- Temperature limits from -5 °C to +50 °C
- 55% less refrigerant thanks to the use of microchannel technology
- Energy savings of up to 70%

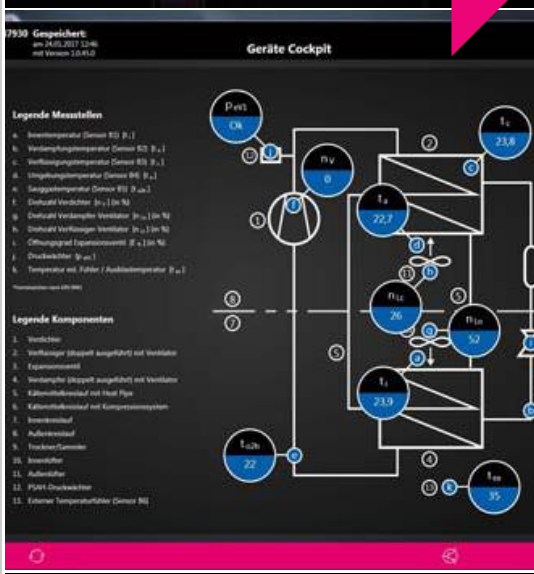
Intelligent networking

- In conjunction with the IoT interface, all Blue e+ chillers can now be networked and digitalised

  The benefits for you:
  – Continuous monitoring of temperature accuracy
  – Avoidance of downtime costs and consequential damage
  – Temperature records and energy efficiency analyses
  – Enhanced process reliability

Easier to operate

- Fast unit analysis using RiDiag III software via the USB port
- Fast parameterisation, data reading and plain-text system messages via the intelligent, multilingual, industry-grade display (21 languages pre-installed)



Maximum flexibility with assembly and siting

- Simple plug & play assembly
- Identical footprint for all performance classes
- Eyebolts for easier transportation
- Service-friendly thanks to optimum accessibility of all components
- Easy replacement of components

For global use

- One device for all voltages and networks:
  – 380 to 415 V, 3~, 50 Hz
  – 440 to 480 V, 3~, 60 Hz
- International approvals:
  cULus Listed, EAC, CB-Report
- Pre-configured option packages

Chillers Blue e+

Accessories for climate control Page 533 **Chiller configurator** Page 558 **IoT interface** Page 554

Benefits:
- Blue e+ chillers ensure centralised and efficient cooling of liquid media with a high level of temperature accuracy and innovative DC inverter technology
- Suitable for international use thanks to its unique multi-voltage capability (without rewiring) and high operating limits
- Maximum reliability thanks to integral overflow valve and monitoring sensors
- Intuitive operation due to touch display and intelligent interfaces
- Compact and modular layout ensures minimum footprint
- Pumps with highly efficient IE3 motors

Temperature control:
- e+ controller (factory setting +20 °C)

Colour:
- Textured RAL 7035

Protection category IP to IEC 60 529:
- IP 24

Supply includes:
- Complete unit ready for connection (plug-in terminal strip)
- Multilingual documentation

Optional:
- For remote monitoring and networking of cooling units and chillers in the Blue e+ generation, please use the IoT interface (Model No. 3124.300). Increase machine availability and process reliability with remote monitoring of device data, statuses and system messages.

Approvals:
Available on the Internet

Performance diagrams:
Available on the Internet

Output class 2500 – 5500 W

Model No.		Packs of	3320.200	3334.300	3334.400	Page
Total cooling output at T_w = 18 °C/T_u = 35 °C to DIN EN 14511 kW			**2.5 / 2.4**	**4 / 3.9**	**5.5 / 5.4**	
Power consumption P_{el} 50/60 Hz kW			1.38 / 1.57	2.49 / 2.72	2.49 / 2.72	
Rated operating voltage V, ~, Hz			380 - 415, 3~, 50 440 - 480, 3~, 60	380 - 415, 3~, 50 440 - 480, 3~, 60	380 - 415, 3~, 50 440 - 480, 3~, 60	
Width mm			450	450	450	
Height mm			820	820	1000	
Depth mm			710	710	710	
Rated current max. A			2.17 / 1.95	3.95 / 3.47	3.95 / 3.47	
Operating temperature range			-5 °C...+50 °C	-5 °C...+50 °C	-5 °C...+50 °C	
Refrigerant g			R134a, 460	R134a, 760	R134a, 930	
Water connection	¾" internal thread		■	■	■	
Pump pressure bar			2.4	2.9	2.9	
Volumetric flow (cooling medium) l/min			7 / 25	15 / 30	15 / 30	
Temperature hysteresis			± 0.5 K	± 0.5 K	± 0.5 K	
Temperature of liquid			+5 °C...+35 °C	+5 °C...+35 °C	+5 °C...+35 °C	
Water circuit version			hermetically open	hermetically open	hermetically open	
Tank			PE plastic	PE plastic	PE plastic	
Tank capacity l			12	12	12	
Weight as delivered kg			84.0	90.0	96.0	
Also required						
Cooling medium (ready-mixed)			see page	see page	see page	545
Accessories						
Filter mat for cooling units, air/air heat exchangers and chillers		3 pc(s).	3285.920	3285.920	3285.900	533
Filter mat for Blue e+ chillers (inverter housings)		3 pc(s).	3285.940	3285.940	3285.940	533
Metal filter		1 pc(s).	3285.930	3285.930	3285.910	534
IoT interface		1 pc(s).	3124.300	3124.300	3124.300	554
RiDiag		1 pc(s).	3159.300	3159.300	3159.300	559
Temperature sensor		1 pc(s).	3124.400	3124.400	3124.400	549
Cross member		2 pc(s).	8601.680	8601.680	8601.680	891
Levelling feet		4 pc(s).	4612.000	4612.000	4612.000	892
Twin castors		1 pc(s).	6148.000	6148.000	6148.000	893
Flow regulator valve			see page	see page	see page	545

Rittal – The System.

IoT Interface

see page 554

Blue e chillers

Targeted cooling output with exceptional efficiency

Simple user prompting

- Fast parameterisation, data reading and plain-text system messages via the intelligent, multilingual, industry-grade touch display
- Prioritised error messages with three escalation levels (warning, error, maintenance)

Targeted climate control

- Central activation of the fan and compressor via a digital controller
- Hysteresis with precision controller (HGBP) ± 0.25 K

Sustainably eco-friendly

- 40% less refrigerant thanks to the use of microchannel technology
- No galvanic corrosion, as the microchannel heat exchanger is made from 100% aluminium

Simple assembly

- Plug & play
- Fully wired ready for connection
- Service-friendly thanks to optimum accessibility of all components

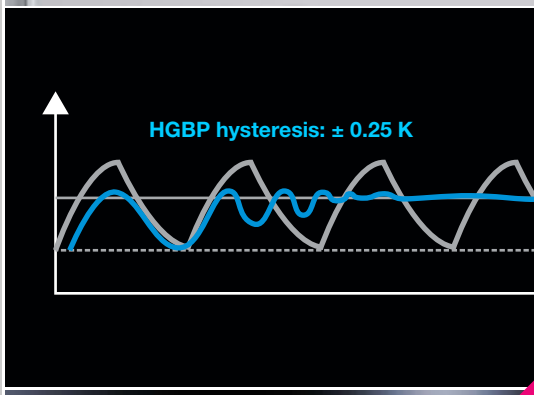
Integral safety functions

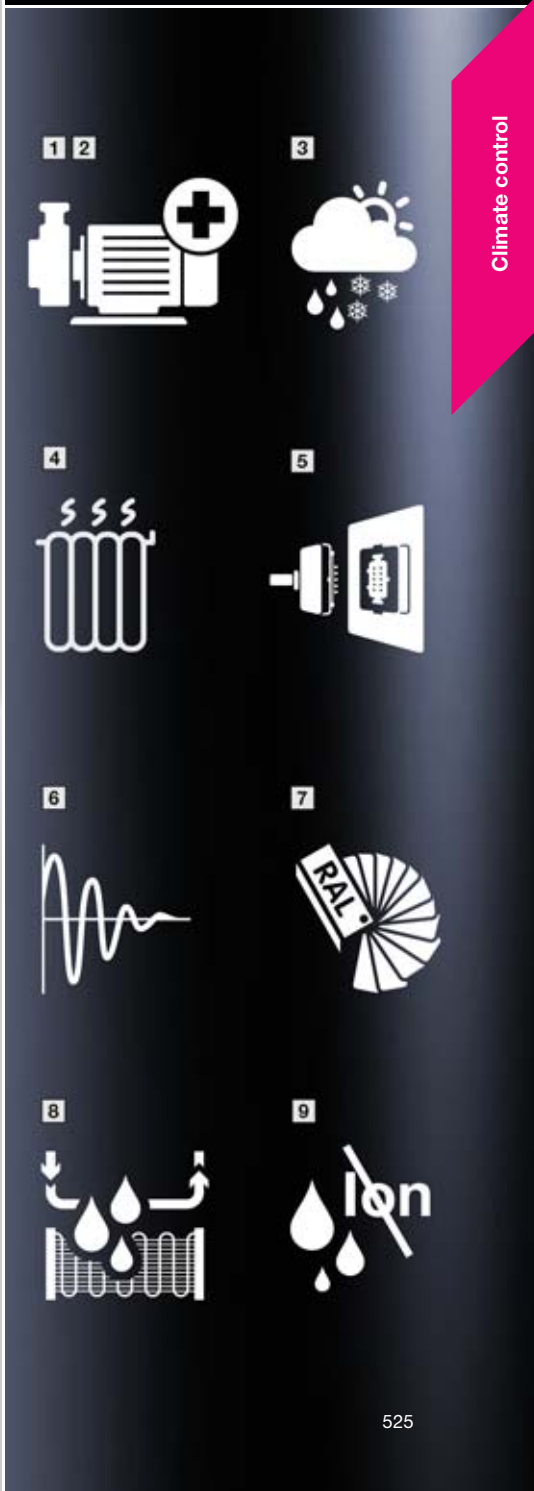
- Integral overflow valves
- Fill level monitoring
- Flow monitor

Pre-configured options (also available as add-on packages)

- For shorter delivery times and a simplified ordering process

1 Increased-output pump (4 and 6 bar)
2 Pumps: Multi-circuit systems
3 Outdoor (up to -20 °C)
4 Heater
5 Industrial connector
6 Precision controller (HGBP)
7 Special spray finish
8 Water-cooled condenser
9 Laser application





Chillers Blue e

Accessories for climate control Page 533 **Cooling medium** Page 545

Design:
- Robust industrial standard
- Variable air routing is possible via the l/h or r/h side panel
- Floating contact for collective fault signal

Benefits:
- Reduced volume of refrigerant, thanks to microchannel technology
- Touch display for simplified user guidance
- Intelligent interfaces
- Integral safety functions
- Pre-configured options

Colour:
- Enclosure: RAL 7035
- Base/plinth: RAL 7016

Protection category IP to IEC 60 529:
- IP 44 (electrics)

Supply includes:
- Chiller wired ready for connection
- Multilingual documentation including functional diagram and wiring plans

Approvals:
Available on the Internet

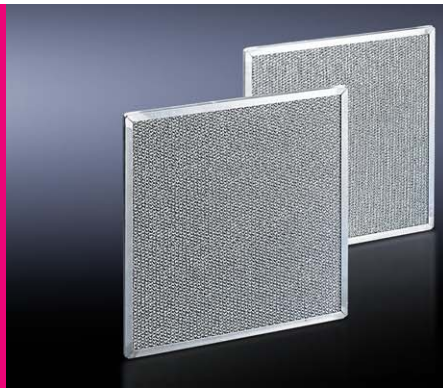
Output class 11000 – 15000 W

Model No.	Packs of	**3336.400**	**3336.405**	**3336.410**	**3336.415**	Page
Total cooling output at T_w = 10 °C/T_u = 32 °C kW		10.2 / 11.7	10.2 / 11.7	12.2 / 12.3	12.2 / 12.3	
Total cooling output at T_w = 18 °C/T_u = 32 °C kW		**11.8 / 13.2**	**11.8 / 13.2**	**14.3 / 14.8**	**14.3 / 14.8**	
Power consumption P_{el} 50/60 Hz kW		6.3 / 8.8	6.3 / 8.8	7.02 / 8.75	7.7 / 9.9	
Rated operating voltage V, ~, Hz		400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm		660	660	660	660	
Height mm		1265	1265	1265	1265	
Depth mm		1315	1315	1315	1315	
Rated current max. A		10.2 / 11.3	11.1 / 13.1	12.9 / 12.9	13.8 / 14.65	
Performance-enhanced pump		–	■	–	■	
Control voltage 24 V DC		–	■	–	■	
Precision controller		–	■	–	■	
Operating temperature range		+10 °C...+43 °C	+10 °C...+43 °C	+10 °C...+43 °C	+10 °C...+43 °C	
Refrigerant g		R410a, 1350	R410a, 1350	R410a, 1350	R410a, 1350	
Water connection R 1" internal thread		■	■	■	■	
Pump pressure bar		2 / 2	5 / 7	2 / 2	5 / 7	
Volumetric flow (cooling medium) l/min		30 / 55	30 / 55	35/ 55	35/ 55	
Air throughput of fans (unimpeded air flow), 50/60 Hz m^3/h		6000 / 7200	6000 / 7200	6000 / 7200	6000 / 7200	
Temperature hysteresis		± 2 K	± 0.25 K	± 2 K	± 0.25 K	
Temperature of liquid		+10 °C...+25 °C	+10 °C...+25 °C	+10 °C...+25 °C	+10 °C...+25 °C	
Tank		PE plastic	PE plastic	PE plastic	PE plastic	
Tank capacity l		49	49	49	49	
Weight as delivered kg		247.0	247.0	253.0	253.0	
Accessories						
Cooling medium (ready-mixed)		see page	see page	see page	see page	545
Metal filter	2 pc(s).	3286.560	3286.560	3286.560	3286.560	534

Output class 20000 – 25000 W

Model No.	Packs of	**3336.430**	**3336.435**	**3336.450**	**3336.455**	Page
Total cooling output at T_w = 10 °C/T_u = 32 °C kW		16.3 / 19.2	16.3 / 19.2	19.9 / 22.9	19.9 / 22.9	
Total cooling output at T_w = 18 °C/T_u = 32 °C kW		**19.3 / 22**	**19.3 / 22**	**24.4 / 26.3**	**24.4 / 26.3**	
Power consumption P_{el} 50/60 Hz kW		8.5 / 10.9	8.5 / 10.9	10.6 / 13.3	11.3 / 14.4	
Rated operating voltage V, ~, Hz		400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm		760	760	760	760	
Height mm		1265	1265	1265	1265	
Depth mm		1515	1515	1515	1515	
Rated current max. A		19 / 15.9	19.9 / 17.2	21.7 / 22.4	22.6 / 24.1	
Performance-enhanced pump		–	■	–	■	
Control voltage 24 V DC		–	■	–	■	
Precision controller		–	■	–	■	
Operating temperature range		+10 °C...+43 °C	+10 °C...+43 °C	+10 °C...+43 °C	+10 °C...+43 °C	
Refrigerant g		R410a, 1450	R410a, 1450	R410a, 1450	R410a, 1450	
Water connection R 1¼" internal thread		■	■	■	■	
Pump pressure bar		2 / 2	4.75 / 6.75	2 / 2	4.5 / 6.7	
Volumetric flow (cooling medium) l/min		45 / 75	45 / 75	55 / 75	55 / 75	
Air throughput of fans (unimpeded air flow), 50/60 Hz m^3/h		12000 / 14500	12000 / 14500	12000 / 14500	12000 / 14500	
Temperature hysteresis		± 2 K	± 0.25 K	± 2 K	± 0.25 K	
Temperature of liquid		+10 °C...+25 °C	+10 °C...+25 °C	+10 °C...+25 °C	+10 °C...+25 °C	
Tank		PE plastic	PE plastic	PE plastic	PE plastic	
Tank capacity l		78	78	78	78	
Weight as delivered kg		310.0	310.0	326.0	326.0	
Accessories						
Cooling medium (ready-mixed)		see page	see page	see page	see page	545
Metal filter	2 pc(s).	3286.570	3286.570	3286.570	3286.570	534

Rittal – The System.



Metal filters

see page 534

VX25 TopTherm chillers

Accessories for climate control Page 533 **Chiller configurator** Page 558

TopTherm chillers in a VX25 enclosure with a small footprint are perfect for integrating into an enclosure suite. Their dual-frequency compatibility makes them extremely flexible. The microchannel technology reduces the volume of refrigerant required.

Benefits:
- Convenient servicing
- High reliability thanks to icing protection
- One version for two frequencies = international compatibility
- Reduced volume of refrigerant, thanks to microchannel technology
- Bayable by screw-fastening at the sides
- Integral safety functions

Temperature control:
- e-controller (factory setting +18 °C)

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 44 (electrics)

Supply includes:
- Fully wired unit ready for connection with side panels and door

Note:
- Regular leak tests are not prescribed by law.

Characteristic curves of pump:
Available on the Internet

Approvals:
Available on the Internet

Output class 8000 – 12000 W

Model No.	Packs of	**3335.920**	**3335.930**	**3335.940**	Page
Total cooling output at T_w = 18 °C/T_u = 32 °C kW		**8 / 8.6**	**8 / 8.6**	**12 / 13.1**	
Power consumption P_{el} 50/60 Hz kW		4.34 / 5.22	4.65 / 5.71	6.35 / 7.31	
Rated operating voltage V, ~, Hz		400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm		805	805	805	
Height mm		1700	2100	2140	
Depth mm		605	605	605	
Rated current max. A		8.4 / 7.5	9 / 8.3	9.9 / 10.8	
Operating temperature range		+10 °C...+43 °C	+10 °C...+43 °C	+10 °C...+43 °C	
Refrigerant g		R410a, 1200	R410a, 1200	R410a, 1400	
Water connection G 1" internal thread		■	■	■	
Pump pressure bar		2.5	2.5	2.5	
Volumetric flow (cooling medium) l/min		30 / 45	30 / 45	35 / 55	
Temperature hysteresis		± 2 K	± 2 K	± 2 K	
Temperature of liquid		+10 °C...+25 °C	+10 °C...+25 °C	+10 °C...+25 °C	
Tank capacity l		75	75	75	
Weight as delivered kg		242.0	248.0	282.0	
Accessories					
Metal filter	1 pc(s).	3286.650	3286.630	3286.630	
Cooling medium (ready-mixed)		see page	see page	see page	545
Flow regulator valve		see page	see page	see page	545
Comfort handle VX	1 pc(s).	8618.250	8618.250	8618.250	937
Twin castors	1 pc(s).	7495.000	7495.000	7495.000	893
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.003	8640.003	8640.003	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.033	8640.033	882
Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.023	8640.023	8640.023	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.043	8640.043	882

Output class 16000 – 25000 W

Model No.	Packs of	**3335.950**	**3335.960**	**3335.970**	Page
Total cooling output at T_w = 18 °C/T_u = 32 °C kW		**16 / 17.6**	**20 / 21.8**	**25 / 27.6**	
Power consumption P_{el} 50/60 Hz kW		7.05 / 8.71	9.21 / 11.75	11.31 / 14.12	
Rated operating voltage V, ~, Hz		400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	400, 3~, 50 460, 3~, 60	
Width mm		805	1205	1205	
Height mm		2140	2140	2140	
Depth mm		605	605	605	
Rated current max. A		12.6 / 12.3	20.2 / 17.3	22.9 / 23.8	
Operating temperature range		+10 °C...+43 °C	+10 °C...+43 °C	+10 °C...+43 °C	
Refrigerant g		R410a, 1400	R410a, 1550	R410a, 1700	
Water connection G 1" internal thread		■	■	■	
Pump pressure bar		2.5	2.5	2.5	
Volumetric flow (cooling medium) l/min		35 / 65	45 / 75	50 / 85	
Temperature hysteresis		± 2 K	± 2 K	± 2 K	
Temperature of liquid		+10 °C...+25 °C	+10 °C...+25 °C	+10 °C...+25 °C	
Tank capacity l		75	150	150	
Weight as delivered kg		282.0	360.0	374.0	
Accessories					
Metal filter	1 pc(s).	3286.630	3286.640	3286.640	
Cooling medium (ready-mixed)		see page	see page	see page	545
Flow regulator valve		see page	see page	see page	545
Comfort handle VX	1 pc(s).	8618.250	8618.250	8618.250	937
Twin castors	1 pc(s).	7495.000	7495.000	7495.000	893
Base/plinth corner piece with base/plinth trim panels, front and rear, 100 mm	2 pc(s).	8640.003	8640.007	8640.007	881
Base/plinth trim panels, sides, 100 mm	2 pc(s).	8640.033	8640.033	8640.033	882
Base/plinth corner piece with base/plinth trim panels, front and rear, 200 mm	2 pc(s).	8640.023	8640.025	8640.025	881
Base/plinth trim panels, sides, 200 mm	2 pc(s).	8640.043	8640.043	8640.043	882

Rittal – The System.

Chiller configurator

see page 558

Enclosure heaters

Accessories for climate control Page 533 **Therm software** Page 558

Enclosure heaters to regulate relative humidity, prevent temperatures from dropping below the dew point and stop condensation forming inside the enclosure. This prevents consequential damage associated with corrosion or electrical short circuits.

Material:
– Aluminium, anodised

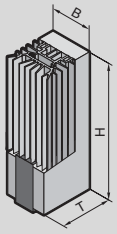
Protection category IP to IEC 60 529:
– IP 20

Protection class:
– II (all-insulated)

Supply includes:
– PTC heater
– Quick-connection terminal
– Assembly parts

Note:
– A thermostat is recommended for precise temperature control inside the enclosure
– In order to prevent condensation on assemblies, a hygrostat is recommended to regulate heating
– In larger enclosures, even heat distribution is best achieved by installing several low-output heaters

Approvals:
Available on the Internet



Continuous thermal output 10 – 150 W, without fan

Model No.	Packs of	**3105.310**	**3105.320**	**3105.330**	**3105.340**	**3105.350**	**3105.360**	**3105.370**	Page
Width (B) mm		45	45	64	64	64	90	90	
Height (H) mm		120	120	155	155	230	165	180	
Depth (T) mm		46	46	56	56	56	75	75	
Continuous thermal output at T_u = 10 °C W		**8 - 10**	**18 - 20**	**23 - 30**	**49 - 50**	**63 - 75**	**86 - 100**	**130 - 150**	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	110 - 240, 1~, 50/60	
Accessories									
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	546
Bottom-mounted adaptor	1 pc(s).	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	3110.200	548

Accessories for climate control Page 533 **Therm software** Page 558

Enclosure heaters to regulate relative humidity, prevent temperatures from dropping below the dew point and stop condensation forming inside the enclosure. This prevents consequential damage associated with corrosion or electrical short circuits.

Material:
– Plastic

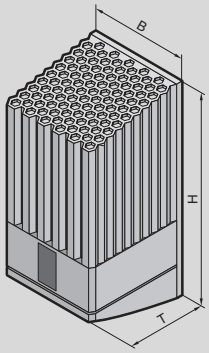
Protection category IP to IEC 60 529:
– IP 20

Protection class:
– II (all-insulated)

Supply includes:
– PTC heater with fan
– Assembly parts

Note:
– A thermostat is recommended for precise temperature control inside the enclosure
– In order to prevent condensation on assemblies, a hygrostat is recommended to regulate heating
– In larger enclosures, even heat distribution is best achieved by installing several low-output heaters

Approvals:
Available on the Internet



Continuous thermal output 235 – 800 W, with fan

Model No.	Packs of	**3105.410**	**3105.380**	**3105.420**	**3105.390**	**3105.430**	**3105.400**	Page
Width (B) mm		103	103	103	103	103	103	
Height (H) mm		200	200	200	200	200	200	
Depth (T) mm		103	103	103	103	103	103	
Continuous thermal output at T_u = 10 °C 50/60 Hz W		**235 / 250**	**250 / 265**	**355 / 400**	**400 / 415**	**710 / 800**	**800 / 870**	
Rated operating voltage V, ~, Hz		115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	115, 1~, 50/60	230, 1~, 50/60	
Accessories								
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	547
Hygrostat	1 pc(s).	3118.000	3118.000	3118.000	3118.000	3118.000	3118.000	547
Digital enclosure internal temperature display and thermostat	1 pc(s).	3114.200	3114.200	3114.200	3114.200	3114.200	3114.200	546

Innovative climate control accessories

Perfectly coordinated components customised to your requirements, from page 533

Filter mat

for tangential fans
Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100 °C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Material:
– Chemical fibres

For tangential fans/front outlet grilles 2 U

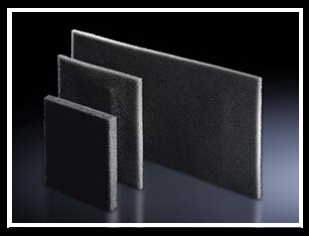
To fit Model No.	W x H x D mm	Packs of	Model No.
3144.000/ 3145.000/ 3176.000	425 x 85 x 8	5 pc(s).	**3177.000**

Filter mat

for cooling units, air/air heat exchangers and chillers
Rittal cooling units are low-maintenance and are supplied without filter mats. Filter mats may be used for extreme conditions.

Benefits:
– Temperature-resistant from -40 °C...+80 °C

Material:
– Open-celled polyurethane foamed plastic



To fit Model No.	for cooling units	for air/air heat exchangers	for chillers	W x H x D mm	Packs of	Model No.
3320.200/3334.300	–	–	■	320 x 599 x 8	3 pc(s).	**3285.920**
3302.300/3303.310	■	–	–	190 x 95 x 10	3 pc(s).	**3286.110**
3273..../3382..../3383..../ 3384..../3385..../3359..../ 3301.800	■	–	–	530 x 255 x 10	3 pc(s).	**3286.500**
3386..../3387....	■	–	–	720 x 300 x 10	3 pc(s).	**3286.600**
3185.830/3185.530	■	–	–	360 x 297 x 10	3 pc(s).	**3285.800**
3186.930/3187.930/ 3188.940/3189.940/ 3186.630/3187.630/ 3188.640/3189.640/ 3334.400	■	–	■	390 x 397 x 10	3 pc(s).	**3285.900**
3302.1xx/3302.200/ 3303.xx0/3361..../ 3126.100/3126.115	■	■	–	265 x 200 x 10	3 pc(s).	**3286.300**
3304.xx0/3305.xx0/ 3328.xx0/3329.xx0/ 3332..../3366..../ 3127.100/3127.115/ 3128.100/3128.115/ 3129.100/3129.115/ 3130.100/3130.115	■	■	–	344 x 268 x 10	3 pc(s).	**3286.400**

Filter mat

for Blue e+ chillers (inverter housings)
Flat-pleated filter for Blue e+ chillers made from polyester with all-round frame and V brackets on the end face.

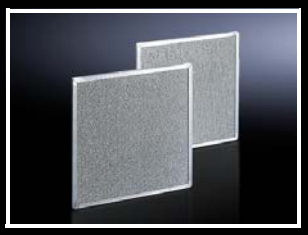
Material:
– Polyester

Filter class to DIN EN 779:
– G3

For Blue e+ chillers

To fit Model No.	W x H x D mm	Packs of	Model No.
3320.200/ 3334.300/ 3334.400	131 x 113 x 13	3 pc(s).	**3285.940**

Filter technology



Metal filter

Particularly when cooling units are used in dusty and oily environments, it is advisable to use washable metal filters. If air or steam condenses on the metal surfaces, any particles present will adhere to the metal, and can easily be washed out with water or grease-dissolving detergents.

Material:
– Aluminium

To fit Model No.	for cooling units	for air/air heat exchangers	for chillers	for climate control door/ section door	W x H x D mm	Packs of	**Model No.**
3185.830/3185.530	■	–	–	–	320 x 280 x 10	1 pc(s).	**3285.810**
3320.200/3334.300	–	–	■	–	295 x 599 x 15	1 pc(s).	**3285.930**
3336.400/3336.405/ 3336.410/3336.415	–	–	■	–	700 x 724 x 20	2 pc(s).	**3286.560**
3336.430/3336.435/ 3336.450/3336.455	–	–	■	–	945 x 765 x 20	2 pc(s).	**3286.570**
3186.930/3187.930/ 3188.940/3189.940/ 3186.630/3187.630/ 3188.640/3189.640/ 3334.400	■	–	■	–	380 x 358 x 10	1 pc(s).	**3285.910**
3300.040/3300.050/ 3300.060/3300.070/ 3300.080/3300.090/ 3300.110/3300.120/ 3201.800/3201.810/ 3201.820/3201.830/ 3201.840/3201.850	–	–	–	■	425 x 78 x 10	1 pc(s).	**3284.210**
3302.300/3302.310	■	–	–	–	190 x 95 x 10	1 pc(s).	**3286.120**
3302.1xx/3302.200/ 3303.xx0/3361..../ 3126.100/3126.115	■	■	–	–	265 x 200 x 10	1 pc(s).	**3286.310**
3304.xx0/3305.xx0/ 3328.xx0/3329.xx0/ 3332..../3366.../ 3127.100/3127.115/ 3128.100/3128.115/ 3129.100/3129.115/ 3130.100/3130.115/ 3360.100	■	■	■	–	344 x 268 x 10	1 pc(s).	**3286.410**
3273..../3382..../3383..../ 3384..../3385..../3359..../ 3318.600/3318.610/ 3319.600/3319.610/ 3334.660	■	–	■	–	530 x 255 x 10	1 pc(s).	**3286.510**
3320.600/3334.600	–	–	■	–	500 x 558 x 8	1 pc(s).	**3286.520**
3386..../3387....	■	–	–	–	720 x 300 x 10	1 pc(s).	**3286.610**
3335.840/3335.850/ 3335.880	–	–	■	–	595 x 1030 x 20	1 pc(s).	**3286.530**
3335.860/3335.870/ 3335.890	–	–	■	–	1000 x 1035 x 20	1 pc(s).	**3286.540**
3335.790/3335.830	–	–	■	–	595 x 780 x 20	1 pc(s).	**3286.550**

Spare filter mat

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100 °C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Note:
– Performance data, protection category and device approvals are only guaranteed when used in conjunction with original Rittal filter mats.

For roof-mounted fan

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3138..../3139..../3140....	Chemical fibre	264 x 95 x 17	G3	12 pc(s).	**3174.100**

For EMC fan-and-filter units

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3237.6..	Copper-nickel-chrome coated chemical fibres	92 x 92 x 10	G2	5 pc(s).	**3237.066**
3238.6..	Copper-nickel-chrome coated chemical fibres	125 x 125 x 12	G2	5 pc(s).	**3238.066**
3239.6..	Copper-nickel-chrome coated chemical fibres	178 x 178 x 17	G3	5 pc(s).	**3239.066**
3240.6../3241.6..	Copper-nickel-chrome coated chemical fibres	226 x 226 x 17	G3	5 pc(s).	**3240.066**
3243.6../3244.6../3245.6..	Copper-nickel-chrome coated chemical fibres	294 x 294 x 17	G3	5 pc(s).	**3243.066**

For fan-and-filter units

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3237....	Chemical fibre	89 x 89 x 10	G2	5 pc(s).	**3321.700**
3237....	Chemical fibre	89 x 89 x 10	G2	50 pc(s).	**3321.705**
3238....	Chemical fibre	120 x 120 x 12	G2	5 pc(s).	**3322.700**
3238....	Chemical fibre	120 x 120 x 12	G2	50 pc(s).	**3322.705**
3239....	Chemical fibre	173 x 173 x 17	G3	5 pc(s).	**3171.100**
3239....	Chemical fibre	173 x 173 x 17	G3	50 pc(s).	**3171.105**
3240..../3241....	Chemical fibre	221 x 221 x 17	G3	5 pc(s).	**3172.100**
3240..../3241....	Chemical fibre	221 x 221 x 17	G3	50 pc(s).	**3172.105**
3243..../3244..../3245....	Chemical fibre	289 x 289 x 17	G3	5 pc(s).	**3173.100**
3243..../3244..../3245....	Chemical fibre	289 x 289 x 17	G3	50 pc(s).	**3173.105**

For Thermoelectric coolers

To fit Model No.	Material	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3201.200/3201.300	Chemical fibre	90 x 106 x 8	G2	5 pc(s).	**3201.050**

Filter technology

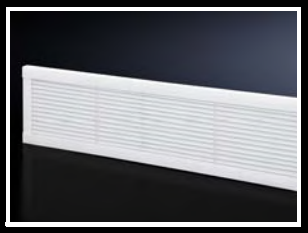
Fine filter mat

for fan-and-filter units
Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100 °C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean-air side: Closed structure. Reliable filtering of virtually all types of dust with a particle size of up to 1 µm.

Material:
– Chemical fibres

Note:
– Performance data, protection category and device approvals are only guaranteed when used in conjunction with original Rittal filter mats.

To fit Model No.	W x H x D mm	Filter class to DIN EN 779	Packs of	**Model No.**
3238....	120 x 120 x 12	F5/M5	5 pc(s).	**3238.055**
3239....	173 x 173 x 12	F5/M5	5 pc(s).	**3181.100**
3240..../3241....	221 x 221 x 12	F5/M5	5 pc(s).	**3182.100**
3243..../3244..../3245....	289 x 289 x 12	F5/M5	5 pc(s).	**3183.100**



Pleated filter

for Blue e+ roof-mounted cooling unit and VX25 Blue e+ integration solution
To achieve a protection category of IP 54 with roof-mounted cooling unit Blue e+ and VX25 Blue e+ integration solution.

Material:
– Non-woven fabric

Note:
– Operation without a pleated filter is inadmissible

Filter class to DIN EN 779:
– G4

To fit Model No.	W x H x D mm	Packs of	**Model No.**
3185.030/ 3185.730	652 x 158 x 15	3 pc(s).	**3285.700**

Outlet filter

Standard
For ventilation by convection, an outlet filter can be installed in the upper and lower sections of the enclosure.

Material:
– ABS

Colour:
– RAL 7035
– Optionally available in RAL 9005

Protection category IP to IEC 60 529:
– IP 54 including filter mat
– IP 55 with standard filter and additional fine filter
– IP 56 with standard filter and hose-proof hood

Protection category NEMA:
– NEMA 12

Supply includes:
– Outlet filter
– Filter mat

Accessories:
– Spare filter mat, see page 535
– Fine filter mat, see page 536
– Hose-proof hood, see page 538
– Blanking cover, see page 538

W x H x D mm	Required cut-out, width mm	Required cut-out, height mm	Packs of	Model No.
116.5 x 116.5 x 16	92	92	1 pc(s).	**3237.200**
148.5 x 148.5 x 24	124	124	1 pc(s).	**3238.200**
204 x 204 x 24	177	177	1 pc(s).	**3239.200**
255 x 255 x 25	224	224	1 pc(s).	**3240.200**
323 x 323 x 25	292	292	1 pc(s).	**3243.200**

Outlet filter

EMC
For ventilation by convection, an outlet filter can be installed in the upper and lower sections of the enclosure.

Material:
– ABS

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54 including filter mat
– IP 55 with EMC filter mat and additional fine filter
– IP 56 with EMC filter mat and hose-proof hood

Supply includes:
– Outlet filter
– Filter mat

Accessories:
– Spare filter mat, see page 535
– Fine filter mat, see page 536
– Hose-proof hood, see page 538

W x H x D mm	Required cut-out, width mm	Required cut-out, height mm	Packs of	Model No.
116.5 x 116.5 x 16	92	92	1 pc(s).	**3237.060**
148.5 x 148.5 x 24	124	124	1 pc(s).	**3238.060**
204 x 204 x 24	177	177	1 pc(s).	**3239.060**
255 x 255 x 25	224	224	1 pc(s).	**3240.060**
323 x 323 x 25	292	292	1 pc(s).	**3243.060**

Filter technology

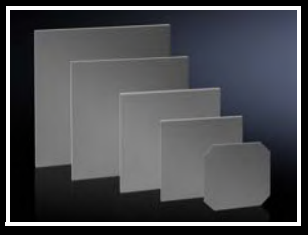
Hose-proof hood

to increase the protection category
For fan-and-filter units/outlet filters. Easy cleaning thanks to exterior silicone coating approved for use with foodstuffs.

Material:
– Stainless steel
– Silicone

Protection category IP to IEC 60 529:
– IP 56 when fitted over fan-and-filter unit/outlet filter with filter mat

To fit Model No.	W x H x D mm	Protection category	Packs of	**Model No.**
3237....	150 x 230 x 40	NEMA 1 NEMA 12 NEMA 3 NEMA 3R	1 pc(s).	**3237.080**
3238....	176 x 245 x 55	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	**3238.080**
3239....	233 x 330 x 55	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	**3239.080**
3240..../3241....	282 x 390 x 85	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	**3240.080**
3243..../3244....	350 x 480 x 110	NEMA 1 NEMA 12 NEMA 3 NEMA 3R NEMA 4 NEMA 4X	1 pc(s).	**3243.080**
3245....	350 x 480 x 160	NEMA 1 NEMA 12 NEMA 3 NEMA 3R	1 pc(s).	**3245.080**



Blanking cover

for fan-and-filter units / outlet filters
If existing mounting cut-outs for fan-and-filter units/ outlet filters need to be closed to achieve a higher protection category, the filter mat of the fan-and-filter unit/outlet filter can simply be replaced with a blanking cover; welding or other mechanical modification of the enclosure is not necessary.

Material:
– PE, closed-cell

Colour:
– Anthracite

Protection category IP to IEC 60 529:
– IP 54

To fit Model No.	W x H x D mm	Packs of	**Model No.**
3237....	81 x 81 x 6	2 pc(s).	**3237.020**
3238....	114 x 114 x 8	2 pc(s).	**3238.020**
3239....	167 x 167 x 15	2 pc(s).	**3239.020**
3240..../ 3241....	214 x 214 x 15	2 pc(s).	**3240.020**
3243..../ 3244..../ 3245....	282 x 282 x 15	2 pc(s).	**3243.020**

Front outlet grille 2 U

for tangential fans

This front outlet grille is required if a 482.6 mm (19") cross-flow blower (SK 3144.000/SK 3145.000) is used in the lower section of the electronic enclosure and the hot air is to be expelled to the outside from the upper section of the enclosure. The design of the grille matches that of the intake grille in the cross-flow blower. These grilles can also be used as simple inflow and outflow grilles with natural convection.

Packs of	**Model No.**
1 pc(s).	**3176.000**

Accessories:

– Filter mat, see page 533

Enclosure internal fan

To prevent hot-spots and support the air routing of active enclosure climate control components. Adjustable in two axes. Attached to the frame section. Several fans may be cascaded using the quick-release clamping strip.

Supply includes:
– Complete unit with axial fan ready for connection
– Snap-on pivot device
– Assembly parts

Air throughput (unimpeded air flow) m^3/h	Rated operating voltage V, ~, Hz	Power consumption W	Rated current A	Packs of	**Model No.**
160	230, 1~, 50/60	19 / 18	0.12 / 0.11	1 pc(s).	**3108.100**
160	115, 1~, 50/60	19 / 18	0.24 / 0.23	1 pc(s).	**3108.115**
160	24 (DC)	3.5	0.15	1 pc(s).	**3108.024**

Mini fan

Compact DC fan for enclosure and component cooling in enclosures.

Supply includes:
– Fan
– Assembly screws
– Contact hazard protection

W x H x D mm	Air throughput (unimpeded air flow) m^3/h	Rated operating voltage V	Power consumption W	Operating temperature range	Noise level dB(A)	Packs of	**Model No.**
60 x 60 x 25.4	21	24 (DC)	1	-20 °C...+70 °C	20	1 pc(s).	**3236.124**

Integrated louvres

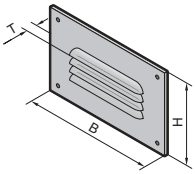
For ventilation by convection; easily retro-fitted using 4 screws.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

W x H x D mm	Packs of	**Model No.**
160 x 110 x 8	4 pc(s).	**2541.235**
210 x 100 x 8	4 pc(s).	**2542.235**
330 x 110 x 8	4 pc(s).	**2543.235**



Air routing

Air duct system

for roof-mounted cooling units and roof-mounted air/water heat exchangers
Cold air may be routed directly to specific areas of the enclosure using the air duct system.
The risk of air short circuits due to self-ventilated installed devices is therefore eliminated.
The dimensions of the shallow duct are W x H x D 229 x 1500 x 29 mm, and can be shortened to the required length.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Supply includes:
– Shallow duct
– Compensating hose

Note:
– Do not direct cold air straight at active components.
– When using the ducting system, the performance of the cooling unit may be reduced, depending on the application in question.
– For devices 3359..../3382...., the air duct adaptor 3286.840 is additionally required.

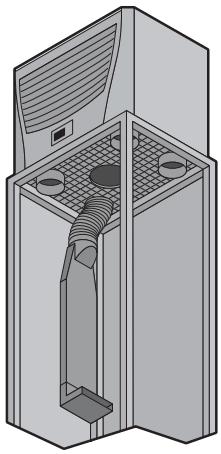
To fit Model No.	Packs of	Model No.
3209..../3210..../3273..../3359..../3382..../3383..../3384..../3385....	1 pc(s).	**3286.870**
3386..../3387....	1 pc(s).	**3286.970**

Also required:

– Support strip, see page 952

Accessories:

– Deflector, 90°, see page 540
– Stoppers, see page 542
– Flat duct extension, see page 541



Air duct adaptor

for air duct system and shallow air duct system
The adaptor serves as a connection between the roof-mounted cooling unit (air inlet opening) and the air-duct system.

Material:
– ABS

Colour:
– RAL 9005

To fit Model No.	Packs of	Model No.
3359..../3382....	1 pc(s).	**3286.840**

Deflector, 90°

for air duct system
For targeted air deflection at the end of the shallow duct.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s).	**3286.990**

Shallow air duct system

for roof-mounted cooling units and roof-mounted air/water heat exchangers
Cold air may be routed directly to specific areas of the enclosure using the air duct system.
The risk of air short circuits due to self-ventilated installed devices is therefore eliminated.
The dimensions of the shallow duct are W x H x D 229 x 1500 x 29 mm, and can be shortened to the required length.

Applications:
– Suitable for enclosures with widths of 800 mm or more and depths of 600 mm or more

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Supply includes:
– Shallow duct
– Adaptor
– Compensating piece
– Deflector, 90°

Note:
– Do not direct cold air straight at active components.
– When using the ducting system, the performance of the cooling unit may be reduced, depending on the application in question.
– Not suitable for use in conjunction with quick-change frame.

To fit Model No.	Packs of	Model No.
3209..../3210..../3273..../3383..../3384..../3385..../3359..../3382....	1 pc(s).	**3286.850**

Also required:
– Air duct adaptor, see page 540
– Support strip, see page 952

Assembly
– For devices 3359.XXX and 3382.XXX, the air duct adaptor 3286.840 is required for mounting.

Accessories:
– Deflector, 90°, see page 540
– Stoppers, see page 542
– Flat duct extension, see page 541

Flat duct extension

Extension kit for shallow air duct system 3286.850 for length compensation in the width, depth or height in enclosures.

Material:
– Flame-resistant plastic to DIN 4102/B1

Colour:
– RAL 7035

Supply includes:
– Shallow duct 1500 mm
– Connecting piece

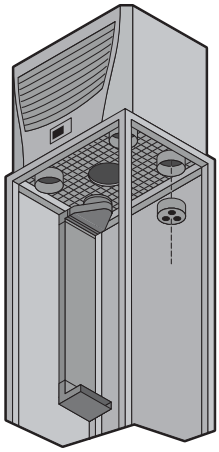
Packs of	Model No.
1 pc(s).	**3286.860**

Air routing

Stoppers

for roof-mounted cooling units and roof-mounted air/water heat exchangers
To cover any cold air outlets that are not required.

Material:
– Polyurethane foam



To fit Model No.	Ø mm	Max. no. of stoppers per unit	Packs of	**Model No.**
3359..../3382....	80	1	2 pc(s).	**3286.780**
3209..../3210..../3273..../3383..../3384..../3385....	100	2	2 pc(s).	**3286.880**
3386..../3387....	150	1	2 pc(s).	**3286.980**

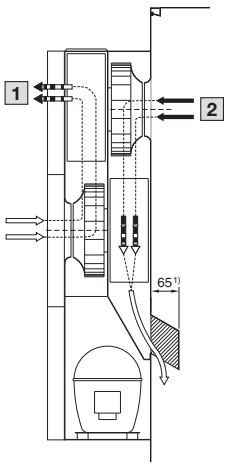
Air diverter

For use with wall-mounted cooling units, for targeted routing of cold air in a downward direction. Particularly well-suited for densely-packed electrical components in the lower section of the enclosure.

Material:
– Sheet steel

Colour:
– RAL 7035

To fit Model No.	Installation depth mm	Packs of	**Model No.**
3304..../3305....	65	1 pc(s).	**3213.310**
3328..../3329....	65	1 pc(s).	**3213.320**



1) 115 mm for 3213.330
1 External air circuit
2 Internal air circuit

Electric condensate evaporator

For external mounting on the enclosure. For use with all enclosure cooling units and air/water heat exchangers (wall-mounted).

Benefits:
– Suitable for international use thanks to multi-voltage support

Colour:
– RAL 7035

Supply includes:
– Electric condensate evaporator, ready to connect

W x H x D mm	Rated operating voltage V, ~, Hz	Operating temperature range	Evaporation performance	Packs of	**Model No.**
280 x 129 x 105	115 - 230, 1~, 50/60	+5 °C...+60 °C	230 V: 3.5 l/d 115 V: 3.0 l/d	1 pc(s).	**3301.500**
400 x 129 x 105	115 - 230, 1~, 50/60	+5 °C...+60 °C	230 V: 3.5 l/d 115 V: 3.0 l/d	1 pc(s).	**3301.505**

Electrical condensate evaporator

for Blue e+ roof-mounted cooling units
Tool-free mounting of the condensate evaporator on the underside of the roof-mounted Blue e+ so that it is not visible from the outside. Any condensation is evaporated and emitted to the ambient air via the air exhaust of the cooling unit.

Material:
– Plastic

Colour:
– RAL 9005

Supply includes:
– Electrical condensate evaporation
– Shipping brace screw
– Entry grommet

Note:
– Power is supplied via the cooling unit

To fit Model No.	W x H x D mm	Rated operating voltage V (DC)	Operating temperature range	Evaporation performance	Packs of	**Model No.**
3185.730	89 x 121 x 158	380	+5 °C...+60 °C	100 ml/h	1 pc(s).	**3355.720**

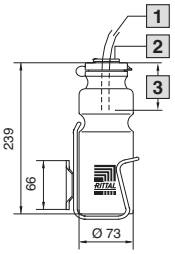
Water distribution

Condensate collecting bottle

For mounting on the enclosure. For use with all enclosure cooling units and air/water heat exchangers. Safety overflow at the side. Capacity approximately 0.75 l.

Supply includes:
– Condensate collecting bottle
– Bottle holder
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**3301.600**



1 Condensate discharge tube
2 Membrane grommet
3 Max. 70 mm

Condensate hose

For discharging and transporting condensate. For connection to enclosure cooling units and air/water heat exchangers.

Material:
– PVC, transparent

To fit Model No.	Length m	Ø mm	Material thickness mm	Packs of	**Model No.**
3201....	5	6	1	1 pc(s).	**3301.606**
3302.300/3302.310	10	8	1.5	1 pc(s).	**3301.608**
3212..../3303..../3361..../3302.1xx/ 3302.2xx	10	10	1.5	1 pc(s).	**3301.610**
3209...3210/3214.100/3215.100/ 3216.480/3273..../3304...3305/ 3328...3329/3332..../3359..../ 3363...3364/3366..../3373...3375/ 3377...3378/3382...3385/3386...3387/ 3185.830/3185.530/3186.930/ 3186.630/3187.930/3187.630/ 3188.940/3188.640/3189.940/ 3189.640	10	12	2	1 pc(s).	**3301.612**

Connection set

for air/water heat exchangers
For professional laying of water connections and regulation of volumetric flow. The pressure hoses may be cut to length individually, depending on the application.

Material:
– Water-carrying parts EPDM/brass

Supply includes:
– Hose for water return
– Hose for water inlet including regulator valve for regulating the volumetric flow (setting range 3 to 12 l/min)
– Assembly parts

To fit Model No.	Length mm	Water connections	Permissible operating pressure (p. max.) bar	Packs of	**Model No.**
3209.XX0/3210.XX0/3216.480/ 3363.XX0/3364.XX0/3373.XX0/ 3374.XX0/3375.XX0	3600	G ⅜" internal thread	1 - 10	1 pc(s).	**3201.990**

Flow regulator valve

For use with air/water heat exchangers, especially if more than one heat exchanger (n > 1) is used in the water cooling circuit. The correctly set valve then ensures the same quantity of cooling medium for all equipment.

Applications:
– The valve is used for hydraulic balancing.

Material:
– Brass

Design	Setting range l/min	Packs of	**Model No.**
¾" x ½" for volumetric flow control	3 - 12	1 pc(s).	**3301.930**
¾" x ¾" for volumetric flow control	3 - 12	1 pc(s).	**3301.940**

Cooling medium (ready-mixed)

For chillers and air/water heat exchangers
As well as protecting against frost, this cooling medium also serves to inhibit bacterial growth and provide optimum corrosion protection.

Application	Antifreeze/water mixture	Container	Contents l	Operating temperature range	Packs of	**Model No.**
Outdoor	1 : 2	Canister	10	-20 °C...+60 °C	1 pc(s).	**3301.950**
Outdoor	1 : 2	Canister	25	-20 °C...+60 °C	1 pc(s).	**3301.955**
Standard	1 : 4	Canister	10	-10 °C...+60 °C	1 pc(s).	**3301.960**
Standard	1 : 4	Canister	25	-10 °C...+60 °C	1 pc(s).	**3301.965**

Control/regulation

Digital enclosure internal temperature display and thermostat

For installation in the enclosure door or wall.

Technical specifications:
– Three-digit, 7-segment display
– Option of switching between °C/°F
– Includes 1800 mm long NTC sensor
– Two relay outputs as change-over contact and normally open contact (max. contact load 230 V, 6 A)
– Freely selectable switching difference

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54

Rated operating voltage V, ~, Hz	Installation depth mm	Setting range	Operating temperature range	Packs of	**Model No.**
100 - 230, 1~, 50/60 24 - 60 (DC)	100	+5 °C...+55 °C	+0 °C...+50 °C	1 pc(s).	**3114.200**

Digital enclosure internal temperature display and thermostat

integrated into a patch panel 1 U
Including cable attachment for connection cable and label holder.

Technical specifications:
– Three-digit, 7-segment display
– Option of switching between °C/°F
– Includes 1800 mm long NTC sensor
– Two relay outputs as change-over contact and normally open contact (max. contact load 230 V, 6 A)
– Freely selectable switching difference

Rated operating voltage V, ~, Hz	Installation depth mm	Setting range	Colour	Packs of	**Model No.**
100 - 230, 1~, 50/60 24 - 60 (DC)	100	+5 °C...+55 °C	RAL 7035	1 pc(s).	**7109.035**
100 - 230, 1~, 50/60 24 - 60 (DC)	100	+5 °C...+55 °C	RAL 9005	1 pc(s).	**5302.041**

Thermostat

Enclosure internal thermostat
Particularly suitable for controlling fans, heaters and heat exchangers, this thermostat can also be used as a signal generator for monitoring the enclosure internal temperature.

Benefits:
- Time-saving connection technique using a terminal strip with a screw connection from the outside
- Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the enclosure section or on the mounting plate using the supplied adaptor

Technical specifications:
- Bi-metal controller as a temperature-sensitive element with thermal feedback
- Contact population: Single-pole change-over contact as a quick-break contact
- Permissible contact load: Category 5 – 3 (heating) AC 10 (4) A (inductive load at cos ϕ = 0.6)/category 5- 4 (cooling): AC 5 (4) A (inductive load at cos ϕ = 0.6)/DC = max. 30 W
- Switching difference: approx. 1 K ± 0.8 K

Colour:
- RAL 7035

Accessories:
- Bottom-mounted adaptor, see page 548
- Mounting plate, see page 998

W x H x D mm	Rated operating voltage V, ~	Setting range	Packs of	**Model No.**
71 x 71 x 33.5	24 - 230, 1~ 24 - 60 (DC)	+5 °C...+60 °C	1 pc(s).	**3110.000**

Hygrostat

Activates the heater and/or fan when a preset relative humidity in the enclosure is exceeded. This reduces the relative humidity and prevents condensation on assemblies and electronic components.

Benefits:
- Time-saving connection technique using a terminal strip with a screw connection from the outside
- Flexible mounting on a vertical or horizontal 35 mm support rail to EN 50 022, and snap fastening in the enclosure section or on the mounting plate using the supplied adaptor

Technical specifications:
- Contact population: Single-pole change-over contact as a quick-break contact
- Permissible contact load: AC ~ 5 (0.2) A (inductive load at cos ϕ = 0.6)/DC = max. 20 W
- Setting range: 50 – 100% relative humidity
- Switching difference: approx. 4%

Colour:
- RAL 7035

W x H x D mm	Rated operating voltage V, ~	Packs of	**Model No.**
71 x 71 x 33.5	24 - 250, 1~ 24 - 75 (DC)	1 pc(s).	**3118.000**

Accessories:
- Bottom-mounted adaptor, see page 548
- Mounting plate, see page 998

Control/regulation

Bottom-mounted adaptor

for enclosure internal thermostat and hygrostat

With mounting option for screwed cable glands, for targeted cable infeed from appropriate equipment such as SK fan-and-filter units and enclosure heaters. In conjunction with screwed cable glands, it also provides strain relief.

Colour:
– RAL 7035

To fit Model No.	Packs of	Model No.
3110.000/3118.000	1 pc(s).	**3110.200**

EC speed control

Control unit for EC fan

Temperature-dependent speed control for EC fans to reduce noise and save energy. The function of the fan can also be monitored.

Functions:
– Activation and monitoring of up to 4 EC fan-and-filter units
– For mounting on a 35 mm support rail EN 50 022
– External temperature sensor to record the actual temperature
– Status LED to display the operating status
– Alarm relay for reporting overtemperature, fan defect, cable break and sensor failure

Supply includes:
– Speed control
– NTC sensor, length 1.80 m

To fit Model No.	Rated operating voltage V	Setting range	Packs of	Model No.
3240.500/3241.500/3243.500/ 3244.500/3245.XXX/3140.500/ 3140.510	100 - 250	+5 °C...+55 °C	1 pc(s).	**3235.440**

EC speed control

Sensor for speed control

NTC sensor for temperature-dependent speed control of EC fans to reduce noise and save energy. Activation and power supply via an EC fan-and-filter unit.

Technical specifications:
– Control characteristic: fixed setpoint at 35 °C, with linear control range between +35 °C (maximum speed 100%) and +20 °C (minimum speed 10%)

Protection category IP to IEC 60 529:
– IP 40

Supply includes:
– External sensor with connection cable (length 3 m)

To fit Model No.	Rated operating voltage V	Operating temperature range	Packs of	Model No.
3240.500/3241.500/ 3243.500/3244.500/ 3245.XXX/3140.500/ 3140.510	10 - 12 (DC)	-25 °C...+80 °C	1 pc(s).	**3235.450**

Speed control

For fan-and-filter units and air/air heat exchangers
Temperature-dependent speed control to minimise noise and save energy in part-load operation.

Technical specifications:
– For mounting on a 35 mm support rail EN 50 022
– Phase cross-over with microcontroller
– Maximum fan output 300 W or 2 A

Supply includes:
– Speed control
– NTC sensor, length 1.80 m

Note:
– Only suitable for use with single-phase AC motors and equipment
– Not suitable for EC motors

Accessories:
– Mounting plate, see page 998

W x H x D mm	Rated operating voltage V	Setting range	Packs of	**Model No.**
105 x 90.5 x 60.2	100 - 230	+20 °C...+55 °C	1 pc(s).	**3120.200**

Temperature sensor

for Blue e+ cooling units, Blue e+ chillers
NTC sensor to regulate Blue e+ cooling units according to an individual measurement point within the enclosure (control based on an external sensor), and according to the cold air outlet from the cooling unit inside the enclosure (control based on outlet temperature). For chillers: Differential control is used if it is necessary to regulate the temperature of the medium depending on the ambient temperature (positive or negative). For this, the temperature sensor needs to be positioned near the Blue e+ chiller.

Supply includes:
– External sensor with connection cable (length 2.5 m)

Packs of	**Model No.**
1 pc(s).	**3124.400**

Control/regulation

Master/slave cable

for SK BUS system

The SK BUS system allows several cooling units and air/water heat exchangers with e-Comfort controller to communicate with one another Master-slave configuration for complex bayed enclosure systems, for optimum operating results.

Technical specifications:
- The master-slave layout facilitates common activation and deactivation via door limit switches, parallel activation and deactivation via a temperature setpoint, and common collective fault signals and temperature logging, eliminating the need for intricate wiring.

Supply includes:
- 3 m shielded interface cable
- Operating instructions on programming the cooling units

Note:
- $n_B = n_K - 1$
- n_B: Number of order units (SK BUS system)
- n_K: Number of cooling units to be linked

Packs of	**Model No.**
1 pc(s).	**3124.100**

Toroidal transformer

Primary connection 115 V/400 V

For the power supply of wall-mounted 230 V air/water heat exchangers. Available with 115 V or 400 V primary connection.

Technical specifications:
- Output 110 VA
- Voltage tolerance ±10%
- Primary connection 3500 mm long
- Secondary connection 1500 mm long
- For mounting on a 35 mm support rail EN 50 022

Supply includes:
- Toroidal transformer
- Assembly parts

To fit Model No.	W x H x D mm	Rated operating voltage V, ~, Hz	Packs of	**Model No.**
3363.X0X/3364.X0X/3212.230/ 3214.100/3214.700/3215.100/ 3215.700	105 x 123 x 55	400 (primary), 2~, 50/60 230 (secondary), 1~, 50/60	1 pc(s).	**3201.960**
3363.X0X/3364.X0X/3214.100/ 3214.700/3215.100/3215.700	105 x 123 x 55	115 (primary), 1~, 50/60 230 (secondary), 1~, 50/60	1 pc(s).	**3201.970**

Industrial Internet of Things

Fast, uninterrupted, automated production,
from page 552

IoT interface

Digitalised and networked

Industrial Internet of Things

- Fast, uninterrupted, automated production
- The Industrial Internet of Things (IIoT) makes it possible.

Condition monitoring for rack and process cooling

- In conjunction with the IoT interface, Rittal cooling solutions can now be networked and digitalised
- Continuous monitoring plays a key role in boosting system availability.

Sensors for enclosure monitoring

- The use of Rittal sensors allows reliable monitoring of a wide range of switchgear parameters.
- Potential failures are identified early on, and operational reliability is increased

Rittal Smart Service

- Data-based service for visualising the response of your networked cooling solutions
- Overview of energy and CO_2 consumption
- Centralised detection of maintenance requirements and critical errors, including recommended actions
- Fast problem analysis and troubleshooting

Rittal Smart Service

IoT interface

The IoT interface is a central component for the intelligent networking of Rittal cooling solutions or sensors for monitoring physical ambient conditions. Equipped with a wide range of interfaces and protocols, it is used to collate and transmit data to superordinate IT systems or to systems for the local monitoring of machine statuses.

Benefits:
- Digitalisation and networking offer huge opportunities for every company. With the IoT interface, Rittal cooling solutions and sensors for monitoring physical ambient conditions are easily connected to Industry 4.0 environments without affecting the automation logic.
- Plug and run: The IoT interface is quickly and conveniently configured and commissioned via the integral Web server, no programming required.

Material:
- Plastic to UL 94-V0

Colour:
- RAL 7016

Protection category IP to IEC 60 529:
- IP 20

Supply includes:
- IoT interface
- USB cable (USB-A connector on micro-USB-B connector)
- Angle bracket for Blue e+ cooling unit

Note:
- The IoT interface is only supported by Blue e+ cooling units from firmware version 1.11.0 or above. If applicable, update the firmware using the RiDiag III software (3159.300).
- To interlink cooling units in the Blue e series, the Blue e IoT adaptor (3124.310) is additionally required.

Assembly
- The IoT interface can be secured on a 35 x 7.5 top hat rail to DIN EN 60715 using a spring-loaded metal clip, or to the rear of a Blue e+ cooling unit using the angle bracket.

Accessories:
- Blue e IoT adaptor, see page 555

W x H x D mm	18 x 117 x 120
For	TopTherm cooling units with e-Comfort controller Blue e+ cooling units Blue e+ chillers Smart Monitoring System for NH fuse-switch disconnectors Rittal sensors
Operating temperature range	+0 °C...+70 °C
Protocols	OPC-UA/SNMPv1/SNMPv2c/SNMPv3/Modbus/TCP/TCP/IPv4/TCP/IPv6/Radius/Telnet/SSH/FTP/SFTP/HTTP/HTTPS/NTP/DHCP/DNS/SMTP/Syslog/LDAP
Interfaces	1 x Micro USB type B (device) for USB 2.0 1 x Micro-SD memory card slot for SD 2.0 1 x USB 2.0 high-speed functions (EHCI) 1 x acknowledgement button 1 x push-in spring connection terminal for NTC sensor 2 x RJ45 jack for RS 485 interface (climate control unit interface)
Network interface	Ethernet IPv4/IPv6 Ethernet to IEEE 802.3 via 10BASE-T, 100BASE-T and 1000BASE-T
Interface bus system	2 x RJ45 CAN bus
Type of electrical connection	Push-in spring connection terminal (24 V DC)
Weight kg	0.278
Packs of	1 pc(s).
Model No.	**3124.300**

Blue e IoT adaptor

In conjunction with the IoT interface, the adaptor supports intelligent networking of cooling units in the Blue e series.

Benefits:
- Digitalisation and networking offer huge opportunities for every company. In conjunction with the IoT interface (3124.300), cooling units in the Blue e series are easily connected to Industry 4.0 environments without affecting the automation logic.
- Plug and run: The IoT interface is quickly and conveniently configured and commissioned via the integral Web server, no programming required.
- Condition monitoring of up to 10 cooling units in a master/slave arrangement

Material:
- Plastic
- Front: Smooth
- Enclosure: Textured

Colour:
- Front: RAL 9005
- Enclosure: RAL 7035

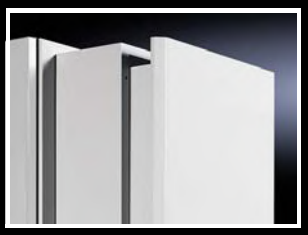
Protection category IP to IEC 60 529:
- IP 30

Supply includes:
- Blue e IoT adaptor
- Installation and Short User's Guide
- Mounting bracket
- Assembly parts
- Sub-D to RJ11 connection cable
- Mounting clips for securing top-hat rails

Also required:
- IoT interface, see page 554

To fit Model No.	3303.5/6xx/3304.5/6xx/3305.5/6xx/3328.5/6xx/3329.5/6xx/3332.5/6xx/3361.5/6xx/3366.5/6xx/3377.5/6xx/3307.7xx/3310.7xx/3382.5/6xx/3359.5/6xx/3383.5/6xx/3273.500/3384.5/6xx/3385.5/6xx/3386.5/6xx/3387.5/6xx/9776.550
W x H x D mm	80 x 30 x 40
For	TopTherm cooling units with e-Comfort controller
Operating temperature range	+0 °C...+55 °C
Interfaces	1 x Modbus RTU 1 x cooling unit interface
Weight kg	0.201
Packs of	1 pc(s).
Model No.	**3124.310**

Mounting accessories



Trim frame

for slimline cooling units

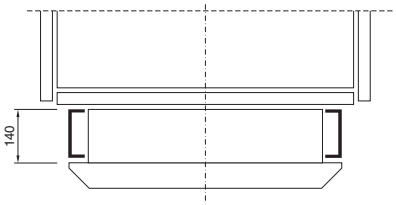
Slimline cooling units can be internally or externally mounted on an enclosure door or wall. The trim frame presents a closed front for the cooling unit.

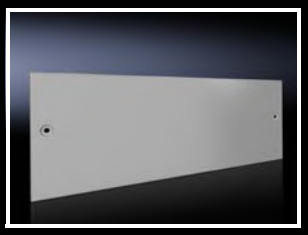
Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Trim frame
– Sealing and assembly parts

To fit Model No.	W x H x D mm	Packs of	**Model No.**
3366....	448 x 1583 x 140	1 pc(s).	**3377.000**





Baying plate

for VX25 Blue e+ integration solution

The baying plate guarantees a protection category of IP 54 when baying the VX25 Blue e+ integration solution to a 2,000 mm high, 600 mm deep enclosure.

Material:
– Sheet steel

Colour:
– Textured RAL 7035

Supply includes:
– Baying plate
– Cross member
– Assembly parts and sealing material

To fit Model No.	W x H x D mm	Packs of	**Model No.**
3185.030	600 x 200 x 17	1 pc(s).	**3355.710**

Quick-change frame

for roof-mounted cooling units

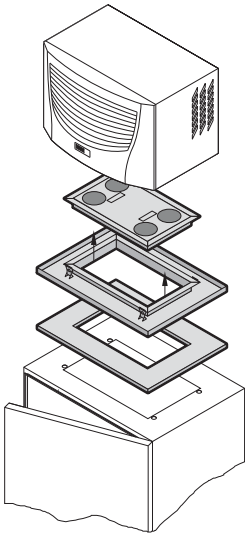
The quick-change frame is more than just an alternate frame. Together with the seal, the lower part of the frame is screw-fastened to the enclosure. In this way, it is possible to install and remove the connector-ready cooling unit with the upper part of the alternate frame previously mounted on the cooling unit with quick-release fasteners. During servicing work, this means shorter assembly times and hence minimised downtime. What is more, the quick-change frame offers effective protection against the ingress of oil into the enclosure in oily atmospheres, thanks to its integral drainage trough.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Quick-change frame
– Seal
– Quick-release fasteners

To fit Model No.	Packs of	**Model No.**
3359..../3382....	1 pc(s).	**3286.700**
3209..../3210..../3383..../ 3384..../3385....	1 pc(s).	**3286.800**
3386..../3387....	1 pc(s).	**3286.900**



Guide frame

for Vario rack-mounted fan

Supply includes:
– Guide frame
– Connector and fitted connection cable
– Mounting bracket for optional attachment to the 482.6 mm (19") mounting level
– Assembly parts

To fit Model No.	Suitable for rated operating voltage	Length of connection cable m	Packs of	**Model No.**
3350.230/3351.230/ 3352.230	115 V, 50/60 Hz 230 V, 50/60 Hz	3	1 pc(s).	**3355.100**
3352.500	24 V DC 115 - 230 V	3	1 pc(s).	**3357.100**

Display frame

for Blue e+ roof-mounted cooling unit and VX25 Blue e+ integration solution
The display frame allows the touch display of the roof-mounted cooling unit Blue e+ or the VX25 Blue e+ integration solution to be positioned in the enclosure door.

Benefits:
– For positioning the display at the optimum operator height

Material:
– Plastic

Colour:
– RAL 7016

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Display frame
– Blanking cover
– RJ 12 extension cable (3 m)
– Assembly parts and sealing material

To fit Model No.	W x H x D mm	Packs of	**Model No.**
3185.030/ 3185.730	316 x 118 x 27.5	1 pc(s).	**3355.700**

Configurators/tools/CAD data

Climate control

The optimum design, control and monitoring of the installation are crucial to efficient climate control. We support you with user-friendly tools and software for rapid calculation, plus Web-based tools and interfaces to easily control your climate control solution.

Chiller configurator

The chiller configurator is the cost-effective way to design your required machine and process cooling. Cooling output, volumetric flow and refrigerant temperatures are precisely tailored to your required application.

Benefits:
- Calculate the heat loss, either mathematically or manually
- Comprehensive range of accessories
- Drawings downloadable in dwg, pdf, or 3D pdf format
- Downloadable specifications/tender texts
- Interactive performance diagram: cooling output and pump output
- Add option packages and download bill of materials
- Transfer order list to shopping basket
- Send a quote request

Note:
- Configure online at www.rittal.com/configurators

Chiller app

The Rittal Chiller app allows users to make their selections from a mobile device. Alongside the existing online version of the chiller configurator, the app also supports automated calculation of the required cooling output. The matching chiller may be selected interactively in just four steps, with outputs ranging from 1 to 40 kW.

Note:
- Download free from the App Store

iPhone app

Therm software

Precise, efficient climate control

Therm undertakes the time-consuming calculation of the required cooling output and selects suitable products. The calculation provides you with detailed documentation for maximum peace of mind when designing the optimum climate control. Therm is based on the requirements of IEC/TR3 60890 AMD 1 and DIN 3168 for enclosure cooling units. The overtemperature to DIN 61439 is calculated with a single click.

Benefits:
- Fast, thorough determination of the required climate control measures
- Identification of the correct climate control measures can cut costs
- Easy calculation of the required actual cooling output, as well as any upgrades or enhancements to the switchgear
- Detailed documentation is supplied with the calculation

Note:
- Configure online at www.rittal.com/software

Therm app

Note:
- Downloaded free from the App Store and from the Google Play Store

Android app

iPhone app

RiDiag II

For the diagnosis, maintenance and long-term data capture of TopTherm units with e-Comfort controller. RiDiag logs equipment data and prepares an error list. RiDiag also offers the option of displaying and setting the device's operating parameters. Logged measurement data can be tracked in real time in the form of a diagram.

Packs of	Model No.
1 pc(s).	**3159.100**

Note:
– Download free at www.rittal.com/software

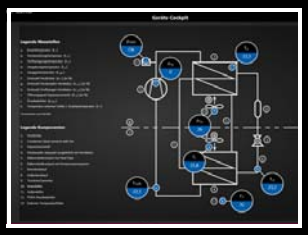
RiDiag III

Diagnosis software for the analysis and parameterisation of cooling units and chillers in the Blue e+ series.

The following functions may be used in the device and efficiency cockpit:
– Quick analysis and setting of all parameters
– Display configuration: e.g. NFC, language, PIN
– Reading of historical data from the last two years[1)]
– Creation of service enquiries and selection of spare parts
– Software and firmware updates for devices

	Model No.
[1)]This additional function can be enabled with a chargeable licence	**3159.300**

Note:
– Download RiDiag III for free at www.rittal.com/software



Blue e+ app

The Blue e+ app supports the contactless exchange of information as well as quick on-site analysis via the NFC interface.

Benefits:
– Saves time when reading the units
– Limit access by requesting a PIN (PIN of cooling unit)
– Superior operational reliability, thanks to improved fault and maintenance management
– Identical displays and menu prompting as on the Blue e+ device display
– Direct link to Rittal Service
– Simply send repair, maintenance and spare parts enquiries from your smartphone

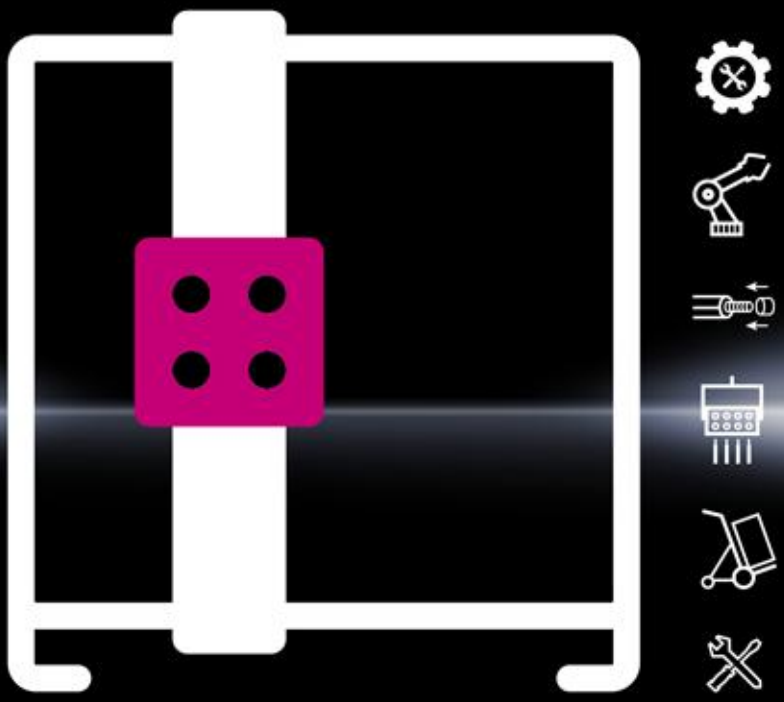
Note:
– Download for free from the Google Play Store

Android app

Boosting efficiency through automation

Rittal has all the machines and devices you need – The Rittal Automation Systems division can supply everything you need to make panel building and switchgear manufacturing easier, faster, more accurate and more reproducible through automation. This allows you to link all work operations together into one highly efficient, digitally seamless, automated process.
Manual handling aids and a wide selection of hand tools are available from a single source and can be ordered directly from Rittal.

Further information, machines and devices can be found in the brochure
“Rittal Automation Systems – Automate your panel building and switchgear manufacturing”.



Manufacturing

3

RITTAL AUTOMATION SYSTEMS

Tools

Tool bag 565
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Milling centre Perforex BC 652
Laser centre Perforex LC 654
Fully automated wire processing machine Wire Terminal WT 656
Terminal block assembly centre Athex TC 80 CS 658

Harness your potential for greater productivity

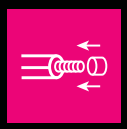
Rittal offers quality tools made from high-quality materials and semi-automated machines for wire assembly and copper processing for professional industry use.
Ergonomic, efficient handling systems for transport and lifting operations round out our standard portfolio.
We can supply all the machining and handling technology you need for time-saving and cost-cutting manufacturing processes, all from a single source.

Perfecting the hand tool

High-quality hand tools for professional use in industry and trade,
from page 565

Simplify handling

Ergonomic, efficient handling systems for transport and lifting operations,
from page 606



Systematise wire processing

Professional, rational solutions for manual wire machining and processing
Crimping tools, from page 574
Semi-automatic machines, from page 632

Streamline wiring

To complete the process chain, Rittal Automation Systems are involved in developing pioneering wiring solutions, right through to full automation.

Automate machining

Fully automated milling or laser machining, plus machining of cable ducts and busbars
Busbar machining, from page 638

Make component mounting more flexible

Automatic manufacturing and component mounting of terminal strips,
from page 658

The right tool for every application!

All from a single source – Rittal offers a comprehensive range of hand-held tools for professional support with your work operations. All the machining and handling technology you need for time-saving and cost-cutting manufacturing processes, all from a single source.

- Screwdrivers, insulated
- Screwdrivers, uninsulated
- Tools for cable processing
- Pliers
- Cutting tools
- Bits
- Bit holders
- Manual and electric hand-held hydraulic punches
- Hole punches

Tool bag

Configured

Configured tool bag comprising a selected range of Rittal hand tools, designed especially for electricians. The practical, high-quality shoulder bag may be used either as a tool bag or laptop case.

Design:
- 19 separate compartments for tools
- Cushioned compartment for laptop or tablet
- Document wallet
- Two additional storage pockets inside

Benefits:
- Careful storage
- Shoulder pad for comfortable carrying
- Flexible use

Material:
- Polyester

Supply includes:
- Screwdriver, insulated SL 3.5 x 0.6 (Model No.: 4052.102), SL 6 x 1.2 (Model No.: 4052.107), PZ 2 (Model No.: 4052.122)
- Screwdriver, non-insulated PZ 2 (Model No.: 4052.022), SL 6 x 1.2 (Model No.: 4052.011), TX 20 (Model No.: 4052.055), TX 25 (Model No.: 4052.056), TX 30 (Model No.: 4052.058)
- Bit holder with handle, magnetic (Model No.: 4053.300)
- Bit set with bit holder, 7-piece (Model No.: 4053.420)
- Crimping pliers for wire end ferrules, for cross-section 0.5 - 6 mm^2, square crimp (Model No.: 4054.001)
- Wire stripper for wire end ferrules, for cross-section 0.02 - 11 mm^2 (Model No.: 4054.300)
- Stripping tools for cables Ø 2.5 - 11 mm (Model No.: 4054.400), for cables Ø 8 - 13 mm (Model No.: 4054.405)
- Side cutter for cables Ø 0.2 - 11 mm (Model No.: 4054.600)
- Electrician's scissors for cables Ø 0.1 - 3.7 mm (Model No.: 4054.700)
- Combination pliers with insulated handle (Model No.: 4054.800)
- Needle-nose pliers with insulated handle (Model No.: 4054.850)
- Tool bag (Model No.: 4053.000)

Width mm	Height mm	Depth mm	Packs of	**Model No.**
420	340	190	1 pc(s).	**4053.500**

Tool bag

Unconfigured

The practical, high-quality shoulder bag may be used either as a tool bag or laptop case.

Design:
- 19 separate compartments for tools
- Cushioned compartment for laptop or tablet
- Document wallet
- Two additional storage pockets inside

Benefits:
- Careful storage
- Shoulder pad for comfortable carrying
- Flexible use

Material:
- Polyester

Width mm	Height mm	Depth mm	Packs of	**Model No.**
420	340	190	1 pc(s).	**4053.000**

Screwdrivers

insulated
With a long, slender handle and high-performance tip with non-transfer insulation.

Design:
– Isolation protection 1000 V

Benefits:
– Minimal force required, thanks to ergonomically styled handle
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit
– Handle 30% and insulation up to 50% slimmer than comparable tools
– Optimum interconnection of hand and handle supports higher torques and longer, fatigue-free working

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Standards:
– IEC 60 900

Approvals:
– VDE
– TÜV-tested safety

For slot-head screws

Blade tip	Blade (width x thickness) mm	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
SL	3 x 0.5	100	3.5	105	25	1 pc(s).	**4052.101**
SL	3.5 x 0.6	100	3.5	105	25	1 pc(s).	**4052.102**
SL	4 x 0.8	100	4	105	25	1 pc(s).	**4052.104**
SL	5.5 x 1	125	5.5	115	27	1 pc(s).	**4052.106**
SL	6.5 x 1.2	125	6.5	115	27	1 pc(s).	**4052.107**

For Pozidriv screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
PZ 1	–	80	4.5	105	25	1 pc(s).	**4052.121**
PZ 2	–	100	6	115	27	1 pc(s).	**4052.122**

For Phillips-head screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
PH 1	–	80	4.5	105	25	1 pc(s).	**4052.131**
PH 2	–	100	6	115	27	1 pc(s).	**4052.132**

For plus/minus

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
Z 1	–	80	4.5	105	25	1 pc(s).	**4052.141**
Z 2	–	100	6	115	27	1 pc(s).	**4052.142**

Screwdriver set

insulated
Multi-part screwdriver set. With a long, slender handle and high-performance tips with non-transfer insulation.

Design:
– Isolation protection 1000 V

Benefits:
– Minimal force required, thanks to ergonomically styled handle
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit
– Handle 30% and insulation up to 50% slimmer than comparable tools

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Supply includes:
– Set with 5 screwdrivers

Standards:
– IEC 60 900

Approvals:
– VDE
– TÜV-tested safety

Blade tip	Packs of	**Model No.**
SL 3 x 0.5 mm SL 4 x 0.8 mm SL 5.5 x 1 mm PH 1 PH 2	1 pc(s).	**4052.210**
SL 3 x 0.5 mm SL 4 x 0.8 mm SL 5.5 x 1 mm PZ 1 PZ 2	1 pc(s).	**4052.211**
SL 3 x 0.5 mm SL 4 x 0.8 mm PH 1 PH 2 Z 2	1 pc(s).	**4052.212**

Screwdrivers

uninsulated
Ergonomic screwdriver which adapts perfectly to the hand, thereby minimising the force required.

Benefits:
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit
– Optimum interconnection of hand and handle supports higher torques and longer, fatigue-free working

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Approvals:
– TÜV-tested safety

For slot-head screws

Blade tip	Blade (width x thickness) mm	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
SL	2.5 x 0.4	75	2.5	86	25	1 pc(s).	**4052.001**
SL	3.5 x 0.6	100	3.5	86	25	1 pc(s).	**4052.003**
SL	4 x 0.8	100	4	94	30	1 pc(s).	**4052.004**
SL	5.5 x 1	150	5	101	33	1 pc(s).	**4052.007**
SL	6.5 x 1.2	150	6	106	36	1 pc(s).	**4052.011**
SL	8 x 1.2	175	7	112	39	1 pc(s).	**4052.014**
SL	5.5 x 1	25	5	60	21	1 pc(s).	**4052.018**

For Pozidriv screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
PZ 1	–	80	4.5	94	30	1 pc(s).	**4052.021**
PZ 2	–	100	6	106	36	1 pc(s).	**4052.022**

For Phillips-head screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
PH 1	–	80	4.5	94	30	1 pc(s).	**4052.031**
PH 2	–	100	6	106	36	1 pc(s).	**4052.032**
PH 2	–	25	6	60	21	1 pc(s).	**4052.038**

For multi-tooth screws

Blade tip	Blade (width x thickness)	Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	Model No.
TX 10	–	100	3.5	86	25	1 pc(s).	**4052.053**
TX 15	–	100	4	94	30	1 pc(s).	**4052.054**
TX 20	–	100	5	101	33	1 pc(s).	**4052.055**
TX 25	–	100	5	106	36	1 pc(s).	**4052.056**
TX 30	–	115	6	112	39	1 pc(s).	**4052.058**

Screwdriver set

uninsulated
Multi-part screwdriver set.

Benefits:
– Minimal force required, thanks to ergonomically styled handle
– Handle head with anti-roll protection and clear screw labelling
– Black coated blade tip to preserve precision and accuracy of fit

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Approvals:
– TÜV-tested safety

Blade tip	Product-specific scope of supply	Packs of	**Model No.**
SL 3.5 x 0.6 mm SL 6.5 x 1.2 mm PZ 1 PZ 2 PH 1 PH 2	6-part set	1 pc(s).	**4052.200**
PH 1 PH 2 TX 15 TX 20 TX 25 TX 30	6-part set	1 pc(s).	**4052.201**
TX 10 TX 15 TX 20 TX 25 TX 30	5-part set	1 pc(s).	**4052.202**

Interchangeable screwdriver set

uninsulated
13-piece tool set with comfortable, foldable, lockable handle.

Technical specifications:
– PH 1 - SL 4 x 0.8 mm
– PH 2 - PH 3
– PZ 1 - SL 5 x 0.8 mm
– PZ 2 - SL 6 x 1 mm
– PZ 3 - SL 7 x 1.2 mm
– TX 6 - TX 7
– TX 8 - TX 9
– TX 10 - TX 15
– TX 20 - TX 25
– TX 30 - TX 40
– Hex socket 3 mm - hex socket 4 mm
– Hex socket 5 mm - hex socket 6 mm

Material:
– Blade: Chrome-molybdenum-vanadium alloy
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Supply includes:
– Combined blade holder: Screwdriver and T handle
– 12 blades each with 2 tips
– Storage box

Blade length mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
160	105	39	1 pc(s).	**4053.450**

Hex wrench set

for Allen screws

Hex wrench with optimum, narrow-tolerance hexagonal profiles and precise ballhead geometry. The extra-long design achieves a greater leverage effect.

Benefits:
- Up to 30% more corrosion resistance
- Optimum hardness and elasticity
- Intensive leverage effect
- Special geometry in the critical zone

Technical specifications:
- For hex socket: 1.27 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 7.0 - 8.0 - 9.0 - 10.0 mm

Supply includes:
- 15 hex wrenches
- Storage box

Packs of	**Model No.**
1 pc(s).	**4052.480**

Industrial bit for cordless screwdrivers

with long shaft
Precisely manufactured screwdriver with a long shaft for industrial use.

Benefits:
– Maximum hardness and torque values

Technical specifications:
– Tool adaptation E 6.3 (¼")

Material:
– High-quality special tool steel

For slot-head screws

Blade tip	Blade (width x thickness) mm	Length mm	Blade dia. mm	Packs of	**Model No.**
SL	3.5 x 0.6	73	6.3	3 pc(s).	**4053.002**
SL	4 x 0.8	73	6.3	3 pc(s).	**4053.003**

For Pozidriv screws

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
PZ 1	–	73	6.3	3 pc(s).	**4053.011**
PZ 2	–	73	6.3	3 pc(s).	**4053.012**

For Phillips-head screws

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
PH 1	–	73	6.3	3 pc(s).	**4053.021**
PH 2	–	73	6.3	3 pc(s).	**4053.022**

For plus/minus

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
Z 1	–	73	6.3	3 pc(s).	**4053.031**
Z 2	–	73	6.3	3 pc(s).	**4053.032**

For multi-tooth screws

Blade tip	Blade (width x thickness)	Length mm	Blade dia. mm	Packs of	**Model No.**
TX 10	–	73	6.3	3 pc(s).	**4053.041**
TX 15	–	73	6.3	3 pc(s).	**4053.042**
TX 20	–	73	6.3	3 pc(s).	**4053.043**
TX 25	–	73	6.3	3 pc(s).	**4053.044**
TX 27	–	73	6.3	3 pc(s).	**4053.045**
TX 30	–	73	6.3	3 pc(s).	**4053.046**
TX 40	–	73	6.3	3 pc(s).	**4053.047**

Industrial bit set for cordless screwdriver

with long shaft
Precisely manufactured screwdriver with a long shaft for industrial use.

Benefits:
– Robust viewing box
– Secure storage

Technical specifications:
– Tool adaptation E 6.3 (¼")

Material:
– High-quality special tool steel

Supply includes:
– Set with 6 bits
– Viewing box

Blade tip	Length mm	Packs of	**Model No.**
SL 3.5 x 0.6 mm SL 4 x 0.8 mm SL 5.5 x 1 mm PH 1 PH 2 PZ 2	73	1 pc(s).	**4053.400**
TX 10 TX 15 TX 20 TX 25 TX 30 TX 40	73	1 pc(s).	**4053.410**

Bit set

with bit holder
7-piece bit set with a practical assortment of quality bits with a short shaft and magnetic holder.

Benefits:
– One-handed operation
– Function as auxiliary screwdriver

Technical specifications:
– Tool adaptation C 6.3 (¼")

Supply includes:
– Set with 6 bits
– Bit holder

Blade tip	Length mm	Packs of	**Model No.**
TX 25 TX 30 TX 40 PH 1 PH 2 PH 3	25	1 pc(s).	**4053.420**

Bit holder

with handle, magnetic
Ergonomic, adaptable bit holder with handle.

Benefits:
– Extra-strong magnet for optimum retention force
– Precise concentricity
– Handle for anti-roll protection

Technical specifications:
– Tool adaptation C 6.3 (¼")
– Tool adaptation E 6.3 (¼")

Material:
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Blade length mm	Blade dia. mm	Handle length mm	Handle dia. mm	Packs of	**Model No.**
100	6.3	101	33	1 pc(s).	**4053.300**

Bit holder

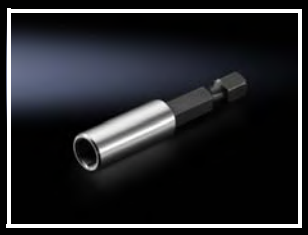
magnetic
Magnetic holder with hex drive to hold bits securely.

Benefits:
– Extra-strong magnet for optimum retention force
– Precise concentricity

Technical specifications:
– Tool adaptation E 6.3 (¼")

Material:
– High-quality special tool steel

Blade length mm	Blade dia. mm	Packs of	**Model No.**
47	6.3	1 pc(s).	**4053.310**



Flex crimping tool

for wire end ferrules

For use with wire end ferrules with no insulating collar to DIN 46228, Part 1 and wire end ferrules with insulating collar to DIN 46228, Part 4.

Benefits:
- Front or side accommodation of the wire end ferrule with a rotatable head
- Minimal effort required with large conductor cross-sections
- Uniformly high quality compression
- Releasable ratchet
- Self-adjusting

Material:
- High-quality special tool steel

Surface finish:
- Coated, black, matt

Colour:
- Handle: Anthracite and Rittal Power Pink

Accessories:
- Wire end ferrules, see page 581

For cross-section mm²	AWG	Direction of cable entry	Compression	Length mm	Design	Packs of	**Model No.**
0.14 - 10	26 - 8	front and side	Trapezoid crimp	180	Straight	1 pc(s).	**4054.030**

Crimping pliers

for wire end ferrules

For use with wire end ferrules with no insulating collar to DIN 46228, Part 1 and wire end ferrules with insulating collar to DIN 46228, Part 4.

Benefits:
- Minimal effort required with large conductor cross-sections
- Uniformly high quality compression
- Releasable ratchet
- Self-adjusting

Material:
- High-quality special tool steel

Surface finish:
- Matt, plated

Colour:
- Handle: Anthracite and Rittal Power Pink

Accessories:
- Wire end ferrules, see page 581

For cross-section mm²	AWG	Direction of cable entry	Compression	Length mm	Design	Packs of	**Model No.**
0.14 - 10	26 - 8	Side	Square crimp	176	Straight	1 pc(s).	**4054.002**
0.14 - 10	26 - 8	Side	Hexagonal crimp	176	Straight	1 pc(s).	**4054.003**

Crimping pliers

for wire end ferrules

For use with wire end ferrules with no insulating collar to DIN 46228 Part 1 and wire end ferrules with insulating collar to DIN 46228 Part 4.

Benefits:
- Minimal effort required with large conductor cross-sections
- Uniformly high quality compression
- Marked die stations for precise machining of the relevant cross-sections
- Releasable ratchet

Material:
- High-quality special tool steel

Surface finish:
- Matt, plated

Colour:
- Handle: Anthracite and Rittal Power Pink

Accessories:

- Wire end ferrules, see page 581

For cross-section mm^2	AWG	Direction of cable entry	Compression	Length mm	Design	Packs of	**Model No.**
0.25 - 6	24 - 10	Side	Trapezoid crimp	198	Angled	1 pc(s).	**4054.000**
0.5 - 6	22 - 10	Front	Square crimp	198	Angled	1 pc(s).	**4054.001**
10 - 25	8 - 4	Side	WM crimp	256	Straight	1 pc(s).	**4054.004**
35 - 50	2 - 1	Side	WM crimp	256	Straight	1 pc(s).	**4054.008**

Crimping pliers

for crimp tab terminals

For use with non-insulated crimp tab terminals.

Benefits:
- Releasable ratchet
- Marked die stations for precise machining of the relevant cross-sections

Material:
- High-quality special tool steel

Surface finish:
- Matt, plated

Colour:
- Handle: Anthracite and Rittal Power Pink

For cross-section mm^2	AWG	Compression	Length mm	Design	Packs of	**Model No.**
0.1 - 1.5	26 - 16	B-crimp	198	Angled	1 pc(s).	**4054.080**
0.5 - 6	22 - 10	B-crimp	256	Straight	1 pc(s).	**4054.081**

Crimping pliers

for ring terminals
For use with non-insulated ring terminals.

Benefits:
– Releasable ratchet
– Optimised lever transmission means that only minimal actuator forces are required, even with large cross-sections

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal Power Pink

For cross-section mm^2	AWG	Compression	Length mm	Design	Packs of	**Model No.**
0.5 - 2.5	20 - 14	Indent crimp	198	Angled	1 pc(s).	**4054.020**
0.35 - 6	22 - 10	Indent crimp	198	Angled	1 pc(s).	**4054.021**
4 - 10	12 - 8	Double-indent crimp	256	Straight	1 pc(s).	**4054.023**
10 - 25	8 - 4	Indent crimp	256	Straight	1 pc(s).	**4054.024**

Crimping pliers

for ring terminals
For use with insulated ring terminals and connectors.

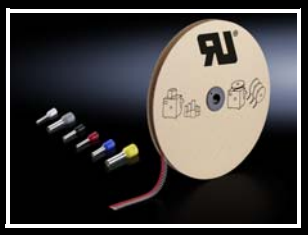
Benefits:
– Clear allocation of cross-sections, thanks to colour coding on the dies
– Releasable ratchet
– Releases as soon as the required pressure is reached, to prevent underpressing

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal Power Pink

For cross-section mm^2	AWG	Compression	Length mm	Design	Packs of	**Model No.**
0.75 - 2.5	22 - 14	Oval crimp	198	Angled	1 pc(s).	**4054.140**
0.75 - 6	22 - 10	Oval crimp	256	Straight	1 pc(s).	**4054.141**



Wire end ferrules

on a reel
With plastic collar.

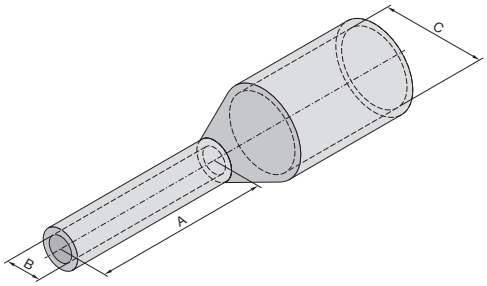
Technical specifications:
– Heat-resistant to 105 °C

Material:
– E-Cu, galvanic tin-plated
– Plastic collar: Polypropylene

Note:
– UL-certified in conjunction with the relevant tools, such as crimping machines.

Standards:
– AEH DIN 46228

Approvals:
– Available on the Internet



A: Length
B: Cross-section
C: Internal diameter

For cross-section 0.5 mm², delivery form: on a reel

Model No.	4051.540	4051.597	4051.548	4050.746	4051.536	4051.598
Packs of	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).
For	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC	Crimping machine RC
For cross-section mm²	0.5	0.5	0.5	0.5	0.5	0.5
AWG	20	20	20	20	20	20
Length mm	8	8	8	8	10	10
Internal diameter mm	2.9	2.6	2.9	2.6	2.9	2.6
Colour	Orange	Orange	White	White	Orange	Orange
DIN colour code	–	–	■	■	–	–
Rittal colour code	■	■	–	–	■	■
Multiple colour codes supported	■	–	■	–	■	–

For cross-section 0.5 - 0.75 mm², delivery form: on a reel

Model No.	4051.544	4051.695	4051.549	4050.747	4051.541	4051.599
Packs of	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).
For	Crimping machine RC	Crimping machine RC	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E
For cross-section mm²	0.5	0.5	0.75	0.75	0.75	0.75
AWG	20	20	18	18	18	18
Length mm	10	10	8	8	8	8
Internal diameter mm	2.9	2.6	3.4	2.8	3.4	2.8
Colour	White	White	Grey	Grey	White	White
DIN colour code	■	■	■	■	–	–
Rittal colour code	–	–	–	–	■	■
Multiple colour codes supported	■	–	■	–	■	–

For cross-section 0.75 mm², delivery form: on a reel

Model No.	4051.545	4051.696	4051.537	4051.600
Packs of	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).
For	Crimping machine RC	Crimping machine RC	Crimping machine RC	Crimping machine RC
For cross-section mm²	0.75	0.75	0.75	0.75
AWG	18	18	18	18
Length mm	10	10	10	10
Internal diameter mm	3.4	2.8	3.4	2.8
Colour	Grey	Grey	White	White
DIN colour code	■	■	–	–
Rittal colour code	–	–	■	■
Multiple colour codes supported	■	–	■	–

For cross-section 1 mm², delivery form: on a reel

Model No.	4051.542	4051.601	4051.550	4050.748	4051.538	4051.602
Packs of	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).
For	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC	Crimping machine RC
For cross-section mm²	1	1	1	1	1	1
AWG	18	18	18	18	18	18
Length mm	8	8	8	8	10	10
Internal diameter mm	3.5	3	3.5	3	3.5	3
Colour	Yellow	Yellow	Red	Red	Yellow	Yellow
DIN colour code	–	–	■	■	–	–
Rittal colour code	■	■	–	–	■	■
Multiple colour codes supported	■	–	■	–	■	–

For cross-section 1 - 1.5 mm², delivery form: on a reel

Model No.	4051.546	4051.697	4051.543	4051.603	4051.551	4050.749
Packs of	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).
For	Crimping machine RC	Crimping machine RC	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC Crimping machine R8	Crimping machine RC Crimping machine R8 Crimping machine R8 E
For cross-section mm²	1	1	1.5	1.5	1.5	1.5
AWG	18	18	16	16	16	16
Length mm	10	10	8	8	8	8
Internal diameter mm	3.5	3	4	3.5	4	3.5
Colour	Red	Red	Red	Red	Black	Black
DIN colour code	■	■	–	–	■	■
Rittal colour code	–	–	■	■	–	–
Multiple colour codes supported	■	–	■	–	■	–

For cross-section 1.5 mm², delivery form: on a reel

Model No.	4051.539	4051.604	4051.547	4051.698
Packs of	4000 pc(s).	5000 pc(s).	4000 pc(s).	5000 pc(s).
For	Crimping machine RC	Crimping machine RC	Crimping machine RC	Crimping machine RC
For cross-section mm²	1.5	1.5	1.5	1.5
AWG	16	16	16	16
Length mm	10	10	10	10
Internal diameter mm	4	3.5	4	3.5
Colour	Red	Red	Black	Black
DIN colour code	–	–	■	■
Rittal colour code	■	■	–	–
Multiple colour codes supported	■	–	■	–

For cross-section 2.5 mm², delivery form: on a reel

Model No.	4050.750	4051.605
Packs of	3000 pc(s).	3000 pc(s).
For	Crimping machine RC Crimping machine R8 Crimping machine R8 E	Crimping machine RC
For cross-section mm²	2.5	2.5
AWG	14	14
Length mm	8	10
Internal diameter mm	4.2	4.2
Colour	Blue	Blue
DIN colour code	■	■
Rittal colour code	■	■
Multiple colour codes supported	■	■

Wire end ferrules

loose
With plastic collar.

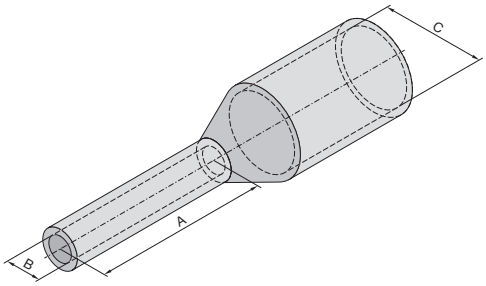
Technical specifications:
– Heat-resistant to 105 °C

Material:
– E-Cu, galvanic tin-plated
– Plastic collar: Polypropylene

Note:
– UL-certified in conjunction with the relevant tools, such as crimping machines.

Standards:
– AEH DIN 46228

Approvals:
– Available on the Internet



A: Length
B: Cross-section
C: Internal diameter

For cross-section 0.14 - 0.5 mm², delivery form: loose

Model No.	4050.752	4050.754	4050.757	4050.760	4050.730	4050.742	4050.761
Packs of	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).
For	manual wire processing	manual wire processing	manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	manual wire processing
For cross-section mm²	0.14	0.25	0.34	0.5	0.5	0.5	0.5
AWG	26	24	22	20	20	20	20
Length mm	8	8	8	8	8	8	10
Internal diameter mm	1.5	1.8	2	2.6	2.6	2.9	2.6
Colour	Grey	Light blue	Turquoise	Orange	White	White	Orange
DIN colour code	–	–	–	–	■	■	–
Rittal colour code	■	■	■	■	–	–	■

For cross-section 0.75 - 1 mm², delivery form: loose

Model No.	4050.731	4050.743	4050.764	4050.766	4050.769	4050.732	4050.744
Packs of	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).
For	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing
For cross-section mm²	0.75	0.75	0.75	0.75	1	1	1
AWG	18	18	18	18	18	18	18
Length mm	8	8	8	10	8	8	8
Internal diameter mm	2.8	3.4	2.8	2.8	3	3	3.5
Colour	Grey	Grey	White	White	Yellow	Red	Red
DIN colour code	■	■	–	–	–	■	■
Rittal colour code	–	–	■	■	■	–	–

Wire end ferrules

For cross-section 1 - 2.5 mm², delivery form: loose

Model No.	4050.770	4050.773	4050.733	4050.745	4050.774	4050.734	4050.779
Packs of	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).	500 pc(s).
For	manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	Crimping machine L8 manual wire processing	manual wire processing	Crimping machine L8 manual wire processing	manual wire processing
For cross-section mm²	1	1.5	1.5	1.5	1.5	2.5	2.5
AWG	18	16	16	16	16	14	14
Length mm	10	8	8	8	10	8	10
Internal diameter mm	3	3.5	3.5	4	3.5	4.2	4.2
Colour	Yellow	Red	Black	Black	Red	Blue	Blue
DIN colour code	–	–	■	■	–	■	–
Rittal colour code	■	■	–	–	■	■	■

For cross-section 4 - 6 mm², delivery form: loose

Model No.	4050.782	4050.735	4050.783	4050.736	4050.785
Packs of	500 pc(s).	500 pc(s).	500 pc(s).	100 pc(s).	100 pc(s).
For	manual wire processing	manual wire processing	manual wire processing	manual wire processing	manual wire processing
For cross-section mm²	4	4	4	6	6
AWG	12	12	12	10	10
Length mm	8	10	12	12	12
Internal diameter mm	4.8	4.8	4.8	6.3	6.3
Colour	Grey	Grey	Grey	Yellow	Black
DIN colour code	–	–	■	■	–
Rittal colour code	■	■	–	–	■

For cross-section 0.5 - 1 mm², delivery form: loose (10 packs of 100)

Model No.	4051.638	4050.737	4051.641	4050.738	4051.644	4050.739
Packs of	1000 pc(s).	1000 pc(s).	1000 pc(s).	1000 pc(s).	1000 pc(s).	1000 pc(s).
For	manual wire processing	manual wire processing	manual wire processing	manual wire processing	manual wire processing	manual wire processing
For cross-section mm²	0.5	0.5	0.75	0.75	1	1
AWG	20	20	18	18	18	18
Length mm	10	12	10	12	10	12
Internal diameter mm	2.6	2.6	2.8	2.8	3	3
Colour	White	White	Grey	Grey	Red	Red
DIN colour code	■	■	■	■	■	■
Rittal colour code	–	–	–	–	–	–

For cross-section 1.5 - 2.5 mm², delivery form: loose (10 packs of 100)

Model No.	4051.647	4050.740	4051.525	4050.741
Packs of	1000 pc(s).	1000 pc(s).	1000 pc(s).	1000 pc(s).
For	manual wire processing	manual wire processing	manual wire processing	manual wire processing
For cross-section mm²	1.5	1.5	2.5	2.5
AWG	16	16	14	14
Length mm	10	12	10	12
Internal diameter mm	3.5	3.5	4.2	4.2
Colour	Black	Black	Blue	Blue
DIN colour code	■	■	■	■
Rittal colour code	–	–	–	–

Wire stripper

For stripping cables and conductors. Self-adjusting, with ergonomically styled handle, replaceable insulation stripping blade.

Benefits:
- Flexible end stop for the insulation stripping length
- Practical integrated wire cutter
- Automatic adjustment mechanism for a wide range of insulations and conductor diameters
- Dies compatible with all types of pliers, may be replaced in a few actions
- Two-component handle with anti-slip soft zone

Colour:
- Handle: Anthracite and Rittal Power Pink

Accessories:
- Spare blades can be found on the Internet

For cross-section mm^2	AWG	Length mm	Design	Note	Packs of	Model No.
0.02 - 10	34 - 8	191	–	–	1 pc(s).	**4054.300**
0.02 - 10	34 - 8	168	Angled	–	1 pc(s).	**4054.315**
0.1 - 4	28 - 12	191	–	Also suitable for rubber and silicone insulation	1 pc(s).	**4054.310**
4 - 16	12 - 5	191	–	–	1 pc(s).	**4054.305**

Stripping tool

for cables Ø 2.5 - 11 mm

For stripping installation cables and wires.

Colour:
- Handle: Anthracite and Rittal Power Pink

For cable diameters mm	Length mm	Packs of	Model No.
2.5 - 11	90.5	1 pc(s).	**4054.400**

Accessories:
- Spare blades can be found on the Internet

Stripping tool

for cables Ø 8 - 13 mm

For stripping single- and multi-wire signal, pilot and fibreglass cables.

Colour:
- Handle: Anthracite and Rittal Power Pink

For cable diameters mm	Length mm	Packs of	Model No.
8 - 13	125	1 pc(s).	**4054.405**

Stripping tool

for cables Ø 4.5 - 40 mm
For stripping cables. Vertically hinged blade for creating round, longitudinal and spiral cuts.

Colour:
– Handle: Anthracite and Rittal Power Pink

For cable diameters mm	Length mm	Packs of	**Model No.**
4.5 - 40	167	1 pc(s).	**4054.410**

Accessories:
– Spare blades can be found on the Internet

Side cutter

For copper and aluminium conductors.

Benefits:
– Guarantees long-term stable cutting performance and a clean cut
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal Power Pink

Standards:
– Isolation protection 1000 V
– VDE

For cable diameters mm	Length mm	Design	Packs of	**Model No.**
0.2 - 11	160	Straight	1 pc(s).	**4054.600**

Electronic side cutter

With pointed head, 21° angled blades and small chamfer.

Benefits:
– Even, smooth-running opening with opening spring
– Ergonomically styled handles
– Box-joint for permanent stability and optimum force progression

Material:
– High-quality special tool steel

Surface finish:
– Polished, oiled

Colour:
– Handle: Anthracite and Rittal Power Pink

Length mm	Packs of	**Model No.**
115	1 pc(s).	**4054.750**

Cable cutter

For copper and aluminium conductors.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– High-quality special tool steel

Colour:
– Handle: Anthracite and Rittal Power Pink

Standards:
– Isolation protection 1000 V
– VDE

For cross-section mm^2	For cable diameters mm	Length mm	Design	Packs of	**Model No.**
0.5 - 35	12	160	Straight	1 pc(s).	**4054.650**
0.5 - 50	18	180	Angled	1 pc(s).	**4054.660**

Electrician's scissors

For cutting copper, aluminium, Kevlar and plastic.

Benefits:
– High cutting performance thanks to micro-serration in the cutting zone
– Ergonomically styled handles
– Two-component handle with anti-slip soft zone
– Adjustable screw joint

Material:
– High-quality special tool steel

Surface finish:
– Brushed

Colour:
– Handle: Anthracite and Rittal Power Pink

For cable diameters mm	Length mm	Packs of	**Model No.**
0.1 - 3.7	160	1 pc(s).	**4054.700**

Cross member cutter

To create openings by cutting the cross members in compartment side panels and compartment dividers for VX enclosures and for fuse-switch-disconnector enclosures.

Benefits:
– Cutting of materials without deformation
– Clean edge cuts, no reworking of the cut section required
– Easy to use
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– Tool body: Special tool steel, rolled, oil-hardened

Colour:
– Handle: Anthracite and Rittal Power Pink

Supply includes:
– Cross member cutter including swarf deflector

To fit Model No.	Length mm	Design	Packs of	**Model No.**
9683.006/9683.008/ 9683.016/9683.018/ 9683.036/9683.038/ 9680.005/9680.025/ 9680.207/9680.227/ 9683.406/9683.408/ 9683.426/9683.428/ 9683.444/9683.446/ 9683.448/9683.464/ 9683.466/9683.468/ 9683.484/9683.486/ 9683.488	280	Straight	1 pc(s).	**4054.870**

Combination pliers

Length mm	Packs of	Model No.
180	1 pc(s).	**4054.800**

With serrated gripping surface and integral ring spanner M8 to M10.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working
– Favourable transmission ratios for good holding and cutting performance
– Minimal force required

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal Power Pink

Standards:
– Isolation protection 1000 V
– VDE

Needle-nose pliers

Length mm	Packs of	Model No.
200	1 pc(s).	**4054.850**

With serrated gripping surface.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal Power Pink

Standards:
– Isolation protection 1000 V
– VDE

Electronic needle-nose pliers

Length mm	Packs of	Model No.
120	1 pc(s).	**4054.860**

With smooth gripping surface.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working
– Even, smooth-running opening with opening spring

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

Colour:
– Handle: Anthracite and Rittal Power Pink

Slip-joint pliers

For width across flats 10 - 36 mm.

Benefits:
– Ergonomically styled handles for fatigue-free, non-slip working
– Smooth cheeks avoid the usual damage caused by wrenches and pipe wrenches on screws/nuts
– QuickSnap ratcheting for fast adjustment to the workpiece with no push-button
– Robust box-joint

Material:
– High-quality special tool steel

Surface finish:
– Matt, plated

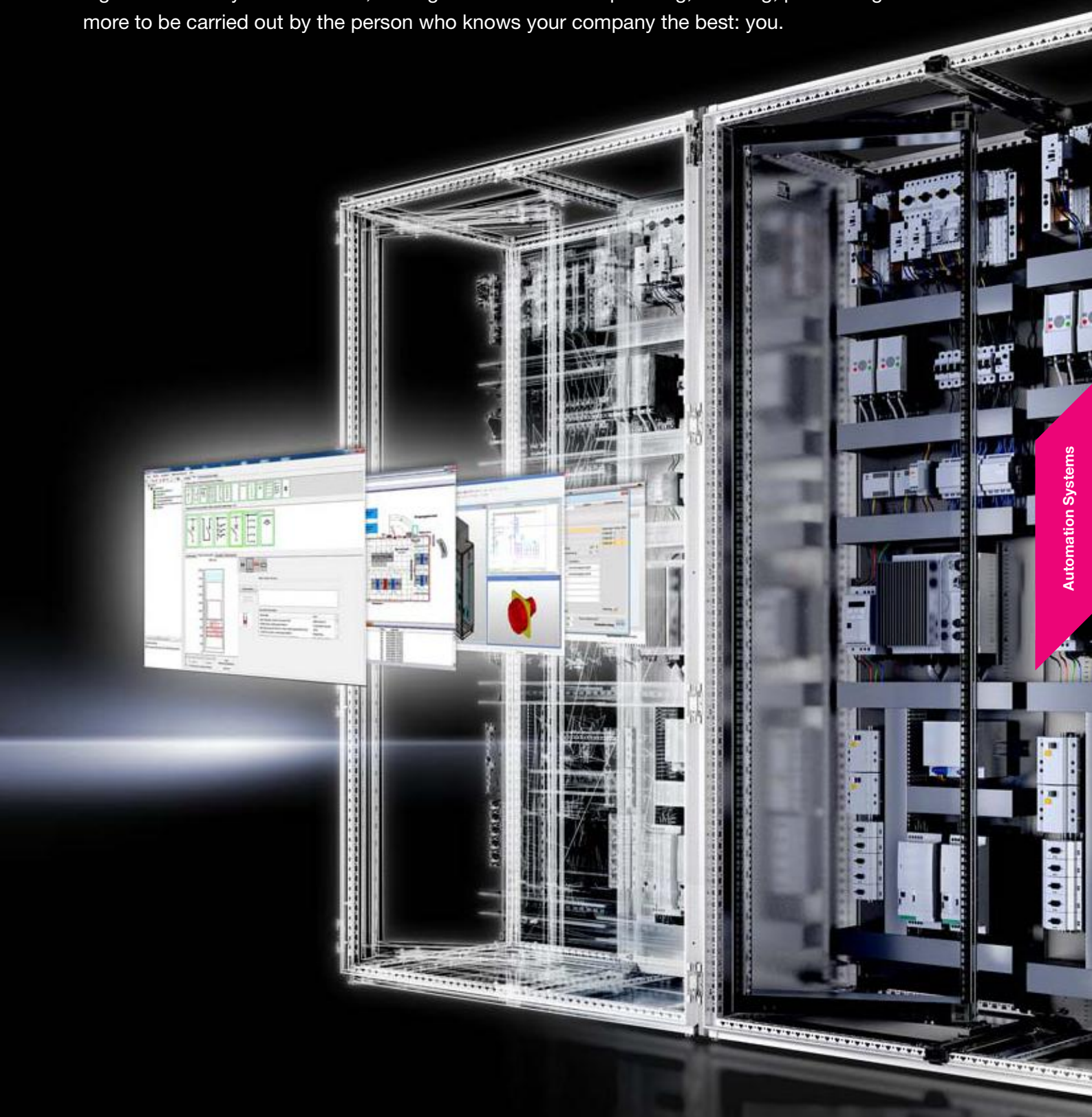
Colour:
– Handle: Anthracite and Rittal Power Pink

Length mm	Packs of	**Model No.**
260	1 pc(s).	**4054.900**

Maximum data quality

Streamline your workflow with software-based engineering

This enclosure is available in duplicate – real and digital.
The maximum data quality of the enclosures creates greater flexibility with configuration, manufacturing and assembly. What's more, the digital twin allows the planning, ordering, processing and much more to be carried out by the person who knows your company the best: you.



Deburring blade

Universal deburrer, for deburring holes and edges.

Design:
– Steel blade may be clamped in an axial or radial direction as required
– Steel blade brushed on both sides

Benefits:
– Blade automatically assumes the optimum position
– Length of blade support is adjustable
– Easy to use
– Effortless deburring
– Ergonomically styled handle

Material:
– Handle core: Hard plastic
– Handle body: Elastic, highly flexible plastic
– Blade holder: Steel
– Blade: Hardened steel blade, with PVD TiN (titanium nitride) coating

Colour:
– Handle: Black and red

Supply includes:
– Handle
– Blade holder
– Steel blade

Handle length mm	Handle dia. mm	Packs of	**Model No.**
110	28	1 pc(s).	**4050.722**

Accessories:

– Steel blade, see page 590

Steel blade

for deburring blade
Spare blade for deburrer. Rotating 360° blades for deburring.

Design:
– Steel blade brushed on both sides

Material:
– Hardened steel blade, with PVD TiN (titanium nitride) coating

To fit Model No.	Blade length mm	Blade dia. mm	Packs of	**Model No.**
4050.722	23	3	10 pc(s).	**4050.723**

Also required:

– Deburring blade, see page 590

Multitool

for AX, VX
Multifunctional tool. Ideal for handling and mounting AX enclosures and VX doors.

Functions:
– Cutting of packaging (tapes and foil)
– Enclosure key (double-bit)
– Installation and dismantling of hinge pins with AX enclosures
– Temporary door stay for AX enclosures
– Safe installation and removal of VX doors
– Magnet for securing drawings and attaching to enclosure surfaces
– Bottle opener function

Technical specifications:
– Load capacity max. 40 kg (lift door)

Material:
– Door lift function: Stainless steel
– Double-bit: Die-cast zinc
– Mounting aid for hinge pins: Die-cast zinc
– Door stay: Die-cast zinc
– Blade: Stainless steel blade
– Handle: Plastic

Colour:
– Handle: Anthracite and Rittal Power Pink

Packs of	**Model No.**
1 pc(s).	**4052.000**

Lifting aid for mounting plate

for AX

Lifting tool to support the assembly process of mounting plates for AX enclosures. Allows easy location and positioning of the mounting plate without risk of injury.

Benefits:
- Easy location of populated mounting plates
- Tool-free mounting on the mounting plate
- Loop function for crane use
- No risk of fingers or hands becoming trapped

Technical specifications:
- Load capacity max. 40 kg per cable

Material:
- Lifting rope and loop: Steel
- Handle: Plastic
- Mounting plate adaptor: Die-cast zinc

Colour:
- Handle: Anthracite and Rittal Power pink

Supply includes:
- 1 set ≙ 4 lifting aids

Packs of	**Model No.**
1 pc(s).	**4050.140**

Drilling template

for AX

For precise positioning and support when drilling extra holes in AX enclosures. Designed for steel and stainless steel enclosures.

Applications:
- Universal bracket 2373.000
- Swing frame installation kit 2034.010
- Door stay 1485.100
- 180° hinges 2449.010

Benefits:
- Protects the edge of the enclosure
- No measurement or marking out required
- Avoids scratches and damage to the enclosure surface

Technical specifications:
- For holes Ø 4.5 / 5.5 / 6.5 mm

Material:
- Hard plastic

Colour:
- RAL 9005

Width mm	Height mm	Depth mm	Packs of	**Model No.**
96	30	45	1 pc(s).	**4052.500**

Hydraulic punches

Manual hydraulic punch

For punching round, square and rectangular cut-outs.

Benefits:
– Extend tool life with a built-in overpressure valve

Punching capacity:
– Round punch up to Ø 82 mm
– Square punch up to 68 x 68 mm
– Rectangular punch up to 46 x 86 mm
– Punching force 75 kN
– Max. operating pressure 680 bar/9850 psi

Material:
– Aluminium

Supply includes:
– Manual hydraulic punch
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 11 mm
– Spacer sleeve set (3-part)
– Plastic case

Design	Packs of	Model No.
Straight	1 pc(s).	**4055.000**
With 90° angled and 360° rotating cylinder head	1 pc(s).	**4055.010**
Flexible, with hydraulic hose and separate cylinder	1 pc(s).	**4055.020**

Electric hydraulic punch

For punching round, square and rectangular cut-outs.

Benefits:
– Extend tool life with a built-in overpressure valve
– High-performance drive motor with ergonomically styled handle
– Slide in the battery packs from two sides to balance the weight

Punching capacity:
– Round punch up to Ø 82 mm
– Square punch up to 68 x 68 mm
– Punching force 75 kN
– Max. operating pressure 680 bar/9850 psi

Material:
– Aluminium

Supply includes:
– Electric hydraulic punch with 2 NiMH batteries, 18 V
– Charging device 18 - 28 V
– Hydraulic screw Ø 9.5 / 19 mm
– Hydraulic screw Ø 19 mm
– Spacer sleeve set (3-part)
– HSS pilot drill Ø 11 mm
– Plastic case

Packs of	Model No.
1 pc(s).	**4055.041**

Manual hydraulic punch set, M16 - M63

Manual hydraulic punch in a practical set with hole punches for sheet steel. Maximum machinable material thickness 2 or 3 mm.

Benefits:
– Extend tool life with a built-in overpressure valve

Supply includes:
– Manual hydraulic punch, straight
– 7 splitter hole punches, triple splitting
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 10 mm
– Spacer sleeve set (3-part)
– Plastic case

For threads	Ø punch mm	Packs of	Model No.
M16 M20 M25 M32 M40 M50 M63	16.2 20.4 25.4 32.5 40.5 50.5 63.5	1 pc(s).	**4055.070**

Manual hydraulic punch set, M16 - M40

Manual hydraulic punch in a practical set with hole punches for sheet steel. Maximum machinable material thickness 2 or 3 mm.

Design:
– With 90° angled and 360° rotating cylinder head

Benefits:
– Extend tool life with a built-in overpressure valve

Supply includes:
– Manual hydraulic punch
– 5 splitter hole punches, triple splitting
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 10 mm
– Spacer sleeve set (3-part)
– Plastic case

For threads	Ø punch mm	Packs of	Model No.
M16 M20 M25 M32 M40	16.2 20.4 25.4 32.5 40.5	1 pc(s).	**4055.080**

Manual hydraulic punch set, PG 9 - PG 48

Manual hydraulic punch in a practical set with hole punches for sheet steel. Maximum machinable material thickness 2 or 3 mm.

Design:
– With 90° angled and 360° rotating cylinder head

Benefits:
– Extend tool life with a built-in overpressure valve

Supply includes:
– Manual hydraulic punch
– 9 splitter hole punches, triple splitting
– Hydraulic screw Ø 19 mm
– Hydraulic screw Ø 9.5 / 19 mm
– HSS pilot drill Ø 10 mm
– Spacer sleeve set (3-part)
– Plastic case

For PG	Ø punch mm	Packs of	Model No.
9 11 13 16 21 29 36 42 48	15.2 18.6 20.4 22.5 28.3 37 47 54 60	1 pc(s).	**4055.085**

Hole punches

Hole punch, round

for sheet steel

For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With 3 cutting points

Supply includes:
– Female dies
– Male dies
– Tension screw without ball bearing

Note:
– When operating with wrenches, tension screws with ball bearings should be used
– Other sizes, see splitter hole punch, round, stainless steel

Accessories:

– Tension screw, see page 602
– Hydraulic tension screw, see page 603

For threads	For PG	Ø punch mm	Tension screw (Ø x L) mm	Tension screw with ball bearing Model No.	Hydraulic tension screw Ø mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M12	7	12.7	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.212**
–	9	15.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.215**
M16	–	16.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.216**
–	11	18.6	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.218**
M20	13	20.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.220**
–	16	22.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.222**
M25	–	25.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.225**
–	21	28.3	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.228**
M32	–	32.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.232**
–	29	37	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.237**
M40	–	40.5	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.240**
–	36	47	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.247**
M50	–	50.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.250**
–	42	54	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.254**
–	48	60	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.260**
M63	–	63.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.263**

Hole punch set, metric

for sheet steel
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With 3 cutting points

Supply includes:
– 5 female dies
– 5 male dies
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used

Accessories:
– Tension screw, see page 602
– Hydraulic tension screw, see page 603

For threads	Ø punch mm	Tension screw with ball bearing Model No.	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M16	16.2	4055.631	4055.661	2	1 pc(s).	**4055.480**
M20	20.4	4055.631	4055.661	2		
M25	25.4	4055.631	4055.661	2		
M32	32.5	4055.631	4055.661	2		
M40	40.5	4055.633	4055.663	3		

Hole punch set, PG

for sheet steel
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With 3 cutting points

Supply includes:
– 5 female dies
– 5 male dies
– 2 tension screws with ball bearing Ø 9.5 x 50 mm
– HSS pilot drill Ø 11 mm
– 1 tube of lubricant paste
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used

Accessories:
– Hydraulic tension screw, see page 603

For PG	Ø punch mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
9	15.2	4055.661	2	1 pc(s).	**4055.481**
11	18.6				
13	20.4				
16	22.5				
21	28.3				

Hole punches

Splitter hole punch, round

for sheet steel, with triple splitting

For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– Female dies
– Male dies

Note:
– When operating with wrenches, tension screws with ball bearings should be used
– Other sizes, see splitter hole punch, round, stainless steel

Accessories:

– Tension screw, see page 602
– Hydraulic tension screw, see page 603

For threads	For PG	Ø punch mm	Tension screw (Ø x L) mm	Tension screw with ball bearing Model No.	Hydraulic tension screw Ø mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M12	–	12.5	6 x 40	4055.630	6/19	4055.660	1.5	1 pc(s).	**4055.512**
–	9	15.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.515**
M16	–	16.2	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.516**
–	11	18.6	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.518**
M20	13	20.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.520**
–	16	22.5	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.522**
M25	–	25.4	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.525**
–	21	28.3	9.5 x 50	4055.631	9.5/19	4055.661	2	1 pc(s).	**4055.528**
M32	–	32.5	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.532**
–	29	37	19 x 55	4055.633	19	4055.663	3	1 pc(s).	**4055.537**
M40	–	40.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.540**
–	36	47	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.547**
M50	–	50.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.550**
–	42	54	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.554**
–	48	60	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.560**
M63	–	63.5	19 x 75	4055.634	19	4055.663	3	1 pc(s).	**4055.563**

Splitter hole punch set, M16 to M40

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 5 female dies
– 5 male dies
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used

Accessories:
– Tension screw, see page 602
– Hydraulic tension screw, see page 603

For threads	Ø punch mm	Tension screw with ball bearing Model No.	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M16	16.2	4055.631	4055.661	2	1 pc(s).	**4055.580**
M20	20.4	4055.631	4055.661	2		
M25	25.4	4055.631	4055.661	2		
M32	32.5	4055.633	4055.663	3		
M40	40.5	4055.634	4055.663	3		

Splitter hole punch set, M12 to M40

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 6 female dies
– 6 male dies
– Tension screw with ball bearing Ø 6 x 40 mm
– Tension screw with ball bearing Ø 9.5 x 50 mm
– Tension screw with ball bearing Ø 19 x 55 mm
– HSS pilot drill Ø 10 mm
– 1 can of lubricant paste
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used

Accessories:
– Hydraulic tension screw, see page 603

For threads	Ø punch mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
M12	12.5	4055.660	1.5	1 pc(s).	**4055.581**
M16	16.2	4055.661	2		
M20	20.4	4055.661	2		
M25	25.4	4055.661	2		
M32	32.5	4055.663	3		
M40	40.5	4055.663	3		

Hole punches

Splitter hole punch set, PG 9 to PG 21

for sheet steel, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– 6 female dies
– 6 male dies
– 2 tension screws with ball bearing Ø 9.5 x 50 mm
– HSS pilot drill Ø 10 mm
– 1 tube of lubricant paste
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used

Accessories:
– Hydraulic tension screw, see page 603

For PG	Ø punch mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
9 11 13 16 21	15.2 18.6 20.4 22.5 28.3 30.5	4055.661	2	1 pc(s).	**4055.582**

Splitter hole punch, round

for stainless steel, round, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Design:
– With triple splitting

Supply includes:
– Female dies
– Male dies

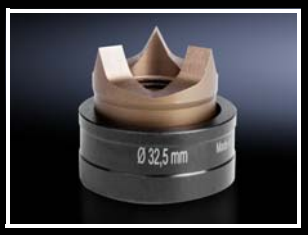
Note:
– When operating with wrenches, tension screws with ball bearings should be used

Also required:

– Tension screw, see page 602
– Hydraulic tension screw, see page 603
– Hydraulic tension screw for higher loads, see page 603

For threads	For PG	Ø punch mm	Tension screw (Ø x L) mm	Tension screw with ball bearing Model No.	Hydraulic tension screw Ø mm	Hydraulic tension screw Model No.	Maximum machinable material thickness, stainless steel mm	Packs of	**Model No.**
–	9	15.2	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.115**
M16	–	16.2	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.116**
–	11	18.6	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.118**
M20	13	20.4	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.120**
–	16	22.5	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.122**
M25	–	25.4	11.1 x 60	4055.632	11.1/19	4055.665	2	1 pc(s).	**4055.125**
–	21	28.3	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.128**
–	–	30.5	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.130**
M32	–	32.5	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.132**
–	–	34.6	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.134**
–	29	37	19 x 55	4055.633	19	4055.663	2.5	1 pc(s).	**4055.137**
M40	–	40.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.140**
–	–	43.2	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.143**
–	36	47	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.147**
–	–	49.6	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.149**
M50	–	50.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.150**
–	42	54	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.154**
–	48	60	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.160**
–	–	61.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.161**
M63	–	63.5	19 x 75	4055.634	19	4055.663	2.5	1 pc(s).	**4055.163**

Hole punches



Splitter hole punch set, metric

for stainless steel, round, with triple splitting
For punching round cut-outs. The hole punch is operated with a wrench or hydraulic punch.

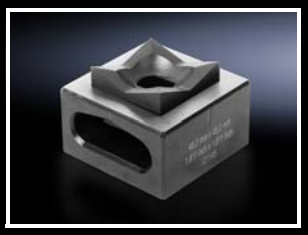
Design:
– With triple splitting

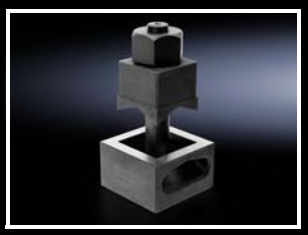
Supply includes:
– 5 female dies
– 5 male dies
– Plastic case

Note:
– When operating with wrenches, tension screws with ball bearings should be used

Also required:
– Tension screw, see page 602
– Hydraulic tension screw, see page 603
– Hydraulic tension screw for higher loads, see page 603

For threads	Ø punch mm	Tension screw with ball bearing Model No.	Hydraulic tension screw Model No.	Maximum machinable material thickness, stainless steel mm	Packs of	**Model No.**
M16	16.2	4055.632	4055.665	2	1 pc(s).	**4055.180**
M20	20.4	4055.632	4055.665	2		
M25	25.4	4055.632	4055.665	2		
M32	32.5	4055.633	4055.663	2.5		
M40	40.5	4055.634	4055.663	2.5		





Hole punch, square

for sheet steel
For punching square cut-outs. The hole punch is operated with a hydraulic punch.

Benefits:
– With side ejector for the waste
– No jamming of the die

Supply includes:
– Female dies
– Male dies
– Tension bolts
– Lock nut
– Plastic case

☐ punch mm	Maximum machinable material thickness, sheet steel mm	Product-specific scope of supply	Operation, manual	Operation, hydraulic	Packs of	**Model No.**
22.2 x 22.2	2	Pressure nut with ball bearing Adaptor for hydraulics	■	■	1 pc(s).	**4055.322**
45.5 x 45.5	3	–	–	■	1 pc(s).	**4055.345**
46 x 46	3	–	–	■	1 pc(s).	**4055.346**
50.8 x 50.8	3	–	–	■	1 pc(s).	**4055.350**
68 x 68	3	–	–	■	1 pc(s).	**4055.368**
92 x 92	3	Spacer sleeve Special tension bolt	–	■	1 pc(s).	**4055.392**

Hole punch, rectangular

for sheet steel

For punching rectangular cut-outs. The hole punch is operated with a wrench or hydraulic punch.

Benefits:
- With side ejector for the waste
- No jamming of the die

Supply includes:
- Female dies
- Male dies
- Tension bolts
- Lock nut
- Plastic case

▭ punch mm	Maximum machinable material thickness, sheet steel mm	Product-specific scope of supply	Operation, manual	Operation, hydraulic	Packs of	**Model No.**
22 x 30	2	Pressure nut with ball bearing Adaptor for hydraulics	■	■	1 pc(s).	**4055.400**
22 x 42	2	Pressure nut with ball bearing Adaptor for hydraulics	■	■	1 pc(s).	**4055.401**
45 x 92	2	–	–	■	1 pc(s).	**4055.402**
46 x 92	2	–	–	■	1 pc(s).	**4055.403**

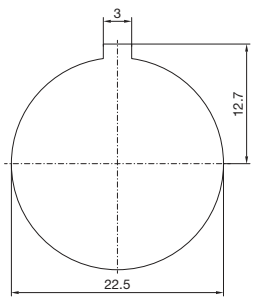
Hole punch, special contour

for sheet steel

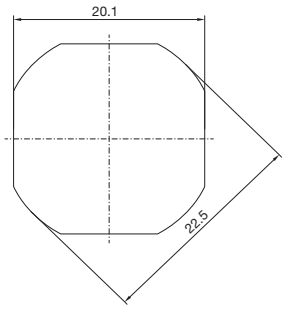
For punching cut-outs with a special contour. The hole punch is operated with a wrench or hydraulic punch.

Benefits:
- With side ejector for the waste
- No jamming of the die

Supply includes:
- Female dies
- Male dies
- Tension bolts
- Lock nut
- Pressure nut with ball bearing
- Adaptor for hydraulics
- Plastic case



4055.440



4055.441

Design	Ø punch mm	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
With 3 mm lug	22.5	2	1 pc(s).	**4055.440**
Flattened to 20.1 mm on 4 sides	22.5	2	1 pc(s).	**4055.441**

Hole punches

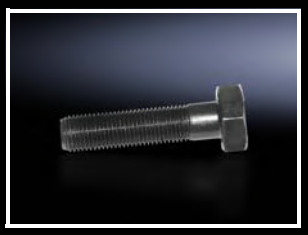
Hole punch, heavy connectors

for sheet steel
For punching rectangular cut-outs for connectors.
The hole punch is operated with a hydraulic punch.

Benefits:
– With side ejector for the waste
– No jamming of the die
– When the die and stamp are compressed, the mounting holes for connectors are marked on the metal sheet between them

Supply includes:
– Female dies
– Male dies
– Tension bolts
– Lock nut

▭ punch mm	No. of poles	Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
36 x 52	6-pole	2	1 pc(s).	**4055.460**
36 x 65	10-pole	2	1 pc(s).	**4055.461**
36 x 86	16-pole	2	1 pc(s).	**4055.463**
36 x 112	24-pole	2	1 pc(s).	**4055.465**



Tension screw

Accessories for hole punches. Required as a connecting part between the die and stamp.

Note:
– For operation with wrench

Tension screw (Ø x L) mm	Packs of	**Model No.**
9.5 x 40	1 pc(s).	**4055.600**
9.5 x 50	1 pc(s).	**4055.601**
19 x 55	1 pc(s).	**4055.602**
19 x 75	1 pc(s).	**4055.603**

Tension screw

with ball bearing
Accessories for hole punches. Required as a connecting part between the die and stamp.

Note:
– For operation with wrench

Tension screw (Ø x L) mm	Packs of	**Model No.**
6 x 40	1 pc(s).	**4055.630**
9.5 x 50	1 pc(s).	**4055.631**
11.1 x 60	1 pc(s).	**4055.632**
19 x 55	1 pc(s).	**4055.633**
19 x 75	1 pc(s).	**4055.634**

Hydraulic tension screw

Accessories for hole punches. Required as a connecting part between the die and stamp.

Note:
– For operation via hydraulic punch

Hydraulic tension screw Ø mm	Product-specific scope of supply	Packs of	**Model No.**
6/19	Adaptor for hydraulics	1 pc(s).	**4055.660**
9.5/19	Adaptor for hydraulics	1 pc(s).	**4055.661**
11.1/19	Adaptor for hydraulics	1 pc(s).	**4055.662**
19	–	1 pc(s).	**4055.663**

Hydraulic tension screw for higher loads

Accessories for hole punches. Required as a connecting part between the die and stamp.

Benefits:
– Hydraulic tension screw made from high-alloy tool steel for higher loads

Note:
– For operation via hydraulic punch

Hydraulic tension screw Ø mm	Packs of	**Model No.**
9.5/19	1 pc(s).	**4055.664**
11.1/19	1 pc(s).	**4055.665**

Notching pliers

Punches slots quickly and easily. Saves the time-consuming process of filing the grooves for anti-twist protection of push buttons, switches and instruments. Slots in sizes 3.2 mm and 4.8 mm can be created.

Benefits:
– Long service life
– Male and female die made from hardened tool steel
– Easy punching with large leverage

Material:
– Handles: Plastic-coated

Maximum machinable material thickness, sheet steel mm	Packs of	**Model No.**
2	1 pc(s).	**4055.690**

Wiring duct cutter MC 125

For manual cutting of wiring ducts, with adjustable length end stop for the machined material. Anodised contact surface with laser-engraved calibration in millimetres and inches. Integral finger guard ensures safe machining. Intended for mounting on a workbench.

Benefits:
- Enables inexpensive manual cutting of wiring ducts
- Easier for cutting wiring ducts to length compared to sawing by hand

Machinable material:
- Plastic

Model No.	Packs of	**4050.435**	Page
Footprint size (W x H x D) mm		1332 x 798 x 405	
Max. machinable width of cable duct mm		125	
Max. machinable wall thickness of cable duct mm		2.5	
Max. insertion height mm		28	
Weight kg		15.0	
Accessories			
Spare blade MC 125	1 pc(s).	4050.436	

Support rail cutter MC3

Support rails Page 996 **Mounting angles** Page 996

Manual profile cutter for cutting C rails 30/15 and support rails TS 35/7.5 and TS 35/15 to length, burr-free. The desired rail length is set precisely and reproducibly using the ruler (mm/inch) and the adjustable end stop. For mounting on the workbench.

Benefits:
- Inexpensive manual cutting of mounting angles and support rails
- Easier to cut mounting angles and support rails to the correct length than sawing by hand
- Burr-free cutting to length with eccentric lever, no major force required
- Low-maintenance and with a long service life

Machinable material:
- Sheet steel
- Aluminium
- Copper

Model No.	Packs of	**4050.437**	Page
Maximum machinable material thickness mm		1.5	
Footprint size (W x H x D) mm		1343 x 1162 x 312	
Weight kg		14.0	
Accessories			
Support rail TS 35/15		see page	997
Support rail TS 35/7.5		see page	997
C rails 30/15		see page	996

Assembly frames and LT 1000 storage and transport trolley

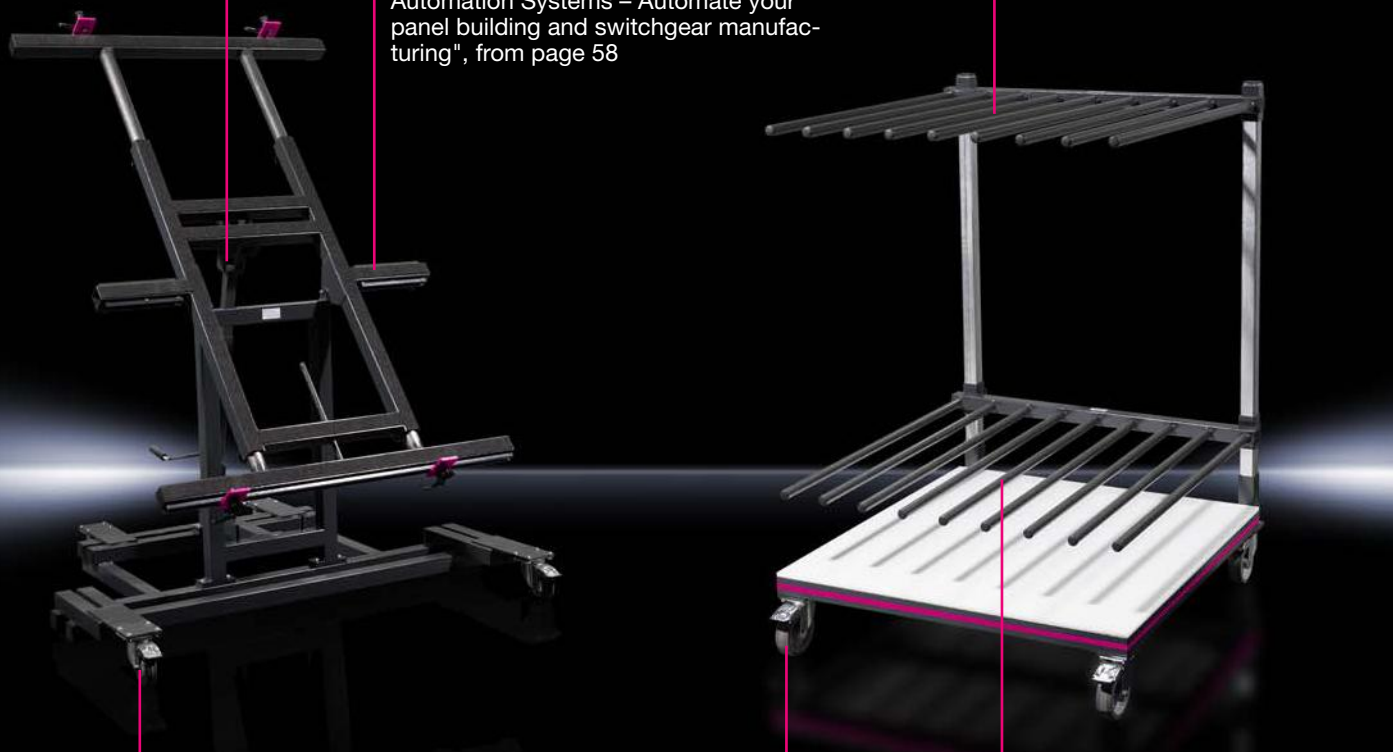
We have the perfect ergonomic solution for you, particularly when it comes to the automation and rationalisation of every stage of the enclosure machining, assembly, wiring and testing process. Our assembly frames are mobile, tiltable and (depending on the version) height-adjustable for machining mounting plates and enclosures. All types offer simple, variable fixing of mounting plates using quick-release fasteners, are independent from the mains power, and take up minimal space when not in use. For easier handling of enclosure panels, we also offer the storage and transport trolley LT 1000.

- Tilt-adjustable and optionally height-adjustable for ergonomic, effective, time-saving construction, wiring and testing of mounting plates or complete enclosures

Numerous adaptation options available:
- Widening to a maximum of 1900 mm
- Wire routing
- Wire reel holder

More options, see brochure "Rittal Automation Systems – Automate your panel building and switchgear manufacturing", from page 58

- Individually adjustable thanks to height-adjustable supports



- Four castors including total lock function ensure simple handling
- Eight wide fan sections for effortless storage and transportation of enclosure panels
- User-friendly transportation through the workshop on castors

Assembly frame

Accessories Page 608

The assembly frames are mobile, tiltable and (depending on the version) height-adjustable frames for assembling plates and enclosures.

Benefits:
- For ergonomic, back-friendly working
- Individually positionable in the workshop, as it is independent from the power network
- Minimum space requirements during non-use
- Simple handling due to four castors including total lock function
- Variable fixing of mounting plates with a quick-release fastener

Technical specifications:
- Tilt adjustment approx. 0 – 80°

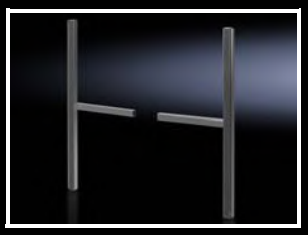
Supply includes:
- Assembly frame
- 1 clamping unit pack, bottom
- 1 clamping unit pack, top

Please observe the product-specific scope of supply.

Note:
- With the assembly frame extension, a maximum machining area of 1900 x 1900 mm can be achieved

Model No.	Packs of	**4050.150**	**4050.200**	**4050.300**	Page
Design		150 MN (manually tilt-adjustable)	200 EN (electrically tilt-adjustable)	300 ENH (electrically tilt- and height-adjustable)	
Dimensions (W x D) mm		1400 x 1250	1400 x 1250	1400 x 1250	
Dimensions of support surface (W x H) min. mm		1110 x 1230	1110 x 1230	1110 x 1230	
Dimensions of support surface (W x H) max. mm		1110 x 1900	1110 x 1900	1110 x 1900	
Load capacity kg		150	200	300	
Working height (min./max.) cm		100 / 100	90 / 90	80 / 110	
Weight kg		138.0	148.0	250.0	
Product-specific scope of supply					
Charger unit		–	■	■	
Battery		–	■	■	
Accessories					
Extension	1 pc(s).	4050.210	4050.210	4050.210	608
Enclosure set	1 pc(s).	4050.211	4050.211	4050.211	608
Wire routing	1 pc(s).	4050.212	4050.212	4050.212	608
Clamping unit		see page	see page	see page	608
Wire reel holder	1 pc(s).	4050.216	4050.216	4050.216	609
Screw adaptor	1 pc(s).	4050.218	4050.218	4050.218	609
Set of brackets	1 pc(s).	4050.221	4050.221	4050.221	610
Roller conveyor	1 pc(s).	–	–	4050.220	609
Spare battery	1 pc(s).	–	4050.217	4050.217	609
Voltage supply	1 pc(s).	–	4050.219	4050.219	610
Connection adaptor	1 pc(s).	–	4050.222	4050.222	610

for assembly frame



Extension

for assembly frame
For widening assembly frames 150 MN, 200 EN, 300 ENH to a maximum width of 1900 mm.

Supply includes:
– Extension
– Assembly parts

To fit Model No.	Packs of	Model No.
4050.150/4050.200/ 4050.300/4051.100	1 pc(s).	**4050.210**

Enclosure set

for assembly frame
For secure attachment of an enclosure such as AX to assembly frame 150 MN, 200 EN, 300 ENH.

Supply includes:
– Packs of 2

To fit Model No.	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	1 pc(s).	**4050.211**

Wire routing

for assembly frame
For user-friendly handling of wires on assembly frame 150 MN, 200 EN, 300 ENH.

To fit Model No.	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	1 pc(s).	**4050.212**

Clamping unit

for assembly frame
For secure attachment of a mounting plate onto the assembly frames 150 MN, 200 EN and 300 ENH.

To fit Model No.	For	Design	Product-specific scope of supply	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	Mounting plate VX/SE	Top	1 clamping unit pack, top	2 pc(s).	**4050.213**
4050.150/ 4050.200/ 4050.300	Mounting plate VX/SE	Bottom	1 clamping unit pack, bottom	2 pc(s).	**4050.214**

Wire reel holder

for assembly frame
For adapting wire reels or drums on assembly frames 150 MN, 200 EN and 300 ENH.

To fit Model No.	Packs of	Model No.
4050.150/ 4050.200/ 4050.300/ 4051.100	1 pc(s).	**4050.216**

Spare battery

for assembly frame
Battery to fit electrical tilt/height adjuster for assembly frame 200 EN, 300 ENH.

To fit Model No.	Packs of	Model No.
4050.200/ 4050.300	1 pc(s).	**4050.217**

Screw adaptor

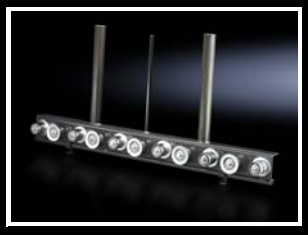
for spindle hoist
For operating the assembly frame spindle drive using a cordless screwdriver. To fit assembly frame 150 MN.

To fit Model No.	Packs of	Model No.
4050.150	1 pc(s).	**4050.218**

Roller conveyor

for assembly frame
For inserting the mounting plate sideways into the enclosure. To fit assembly frame 300 ENH.

To fit Model No.	Packs of	Model No.
4050.300	1 pc(s).	**4050.220**



for assembly frame

Set of brackets

for assembly frame
For secure attachment of a mounting plate onto the assembly frames 150 MN, 200 EN, 300 ENH.

Supply includes:
– 4 cover caps
– 12 handles
– 2 holders
– 16 washers
– 12 sliding blocks

To fit Model No.	For	Packs of	Model No.
4050.150/ 4050.200/ 4050.300	Mounting plate AX	1 pc(s).	**4050.221**

Voltage supply

for assembly frame
Charging station power pack for assembly frame 200 EN and 300 ENH.

To fit Model No.	Suitable for rated operating voltage	Packs of	Model No.
4050.200/ 4050.300	110 V	1 pc(s).	**4050.219**

Also required:
– Connection adaptor, see page 610

Connection adaptor

for voltage supply
Adaptor connector for the power supply to assembly frames 200 EN and 300 ENH.

Design:
– USA, Canada, Central and South America, Japan

To fit Model No.	Packs of	Model No.
4050.200/4050.300	1 pc(s).	**4050.222**

Also required:
– Voltage supply, see page 610

Storage and transport trolley LT 1000

The LT 1000 warehouse and transport trolley is used for storage and order picking, and ensures easy handling of enclosure panels such as mounting plates, enclosure doors, side panels and rear panels.

Design:
– 2 fan supports each with 8 slots, distance between tubes 100 mm

Benefits:
– Individually adjustable thanks to height-adjustable supports
– Effortless storage and transportation of enclosure panels
– User-friendly transportation on industrial castors
– Fan support, powder-coated, protects enclosure panels such as doors, side panels etc. from scratches and damage

Material:
– Base plate: Plastic
– Fan support: Steel, powder-coated

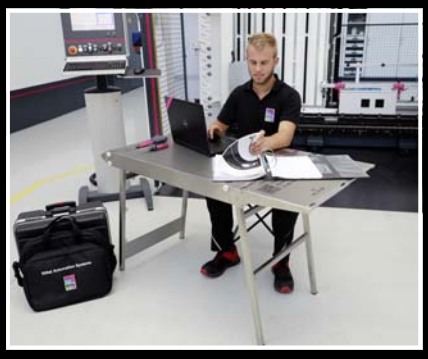
Model No.	Packs of	**4050.000**	Page
Transport dimensions (W x H x D) mm		1000 x 1500 x 1000	
Load capacity kg		500	
Weight kg		122.0	

Functional trolley

The functional trolley is a veritable multi-talent: Whether for transporting materials and tools to the installation site or for commissioning, the functional trolley is perfectly suited for assembly technicians and service personnel. The sophisticated fold-out concept is the ideal solution when you are on the road, and its compact dimensions mean that it can be conveniently transported by car.

Folds together for space-saving transportation

Handcart function



Integral folding chair, e.g. for programming work during commissioning

- Made from V2A stainless steel for robustness and durability
- Computer mouse-friendly surface

- Converts from a transport function to a practical desk by simply unfolding

Functional trolley

Whether for transporting essential materials and tools to the installation site or for commissioning, the functional trolley's fold-out system is the ideal solution for assembly technicians and service personnel.

Benefits:
- Table surface suitable for computer mouse
- Converts from its transport function to a practical desk by simply unfolding
- High level of resilience and robustness

Material:
- Functional trolley: Stainless steel 1.4301 (AISI 304)
- Work surface: Plastic coating
- Seat surface: Woven polyester fabric, coated in PVC

Load capacity:
- Handcart (max. 20 kg)
- Table (max. 30 kg)
- Folding chair (max. 100 kg)

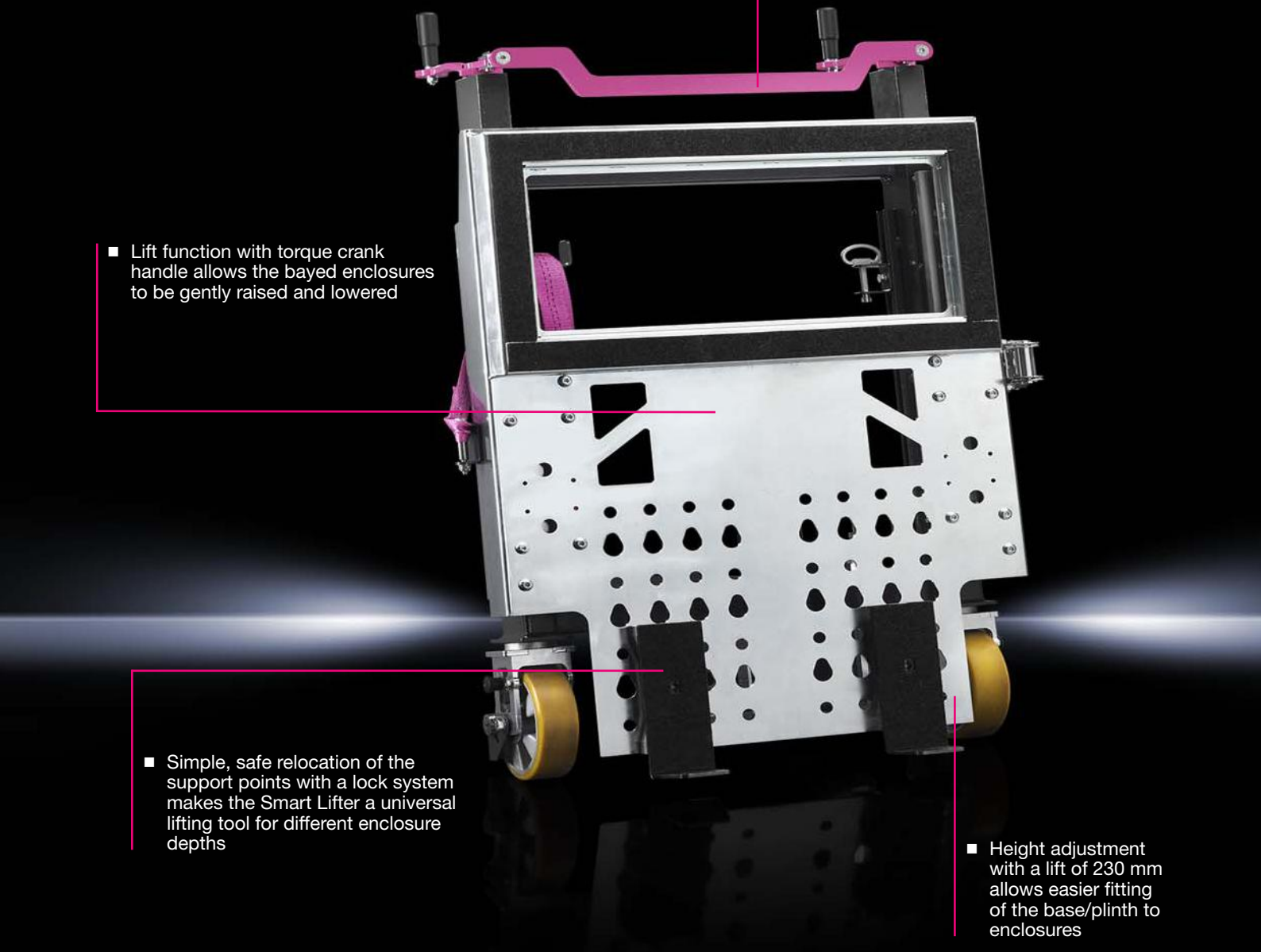
Supply includes:
- Functional trolley
- Folding chair

Model No.	Packs of	**4050.130**	Page
Transport dimensions (W x H x D) mm		610 x 1000 x 85	
Handcart dimensions (W x H x D) mm		300 x 610 x 1000	
Table dimensions (W x H x D) mm		1290 x 780 x 610	
Weight kg		20.0	

Smart Lifter enclosure lifting and transportation device

Enclosure logistics made easy: the Smart Lifter allows populated and bayed enclosures up to a maximum weight of 1.8 t and a length of 4.8 m to be safely and easily transported. The height adjuster with torque drive can lift to a height of 230 mm, allowing operators to fit the base/plinth and lower onto pallets or square timbers. By using the torque cranks, the entire system can be gently lowered into place.

- The steering system with heavy-duty castors allows smooth relocation of the enclosure suite, and even rotation on the spot



- Lift function with torque crank handle allows the bayed enclosures to be gently raised and lowered
- Simple, safe relocation of the support points with a lock system makes the Smart Lifter a universal lifting tool for different enclosure depths
- Height adjustment with a lift of 230 mm allows easier fitting of the base/plinth to enclosures

The Smart Lifter is your flexible, mobile transport system for switchgear manufacturers, logistics specialists and service teams.
The Smart Lifter is distinguished by its versatility and industrial design with built-in torque crank handle to protect employees from incorrect operation.

The belt and double-bit key are stored outside of the work zone

The torque crank handle allows bayed enclosures to be raised and lowered with minimal force

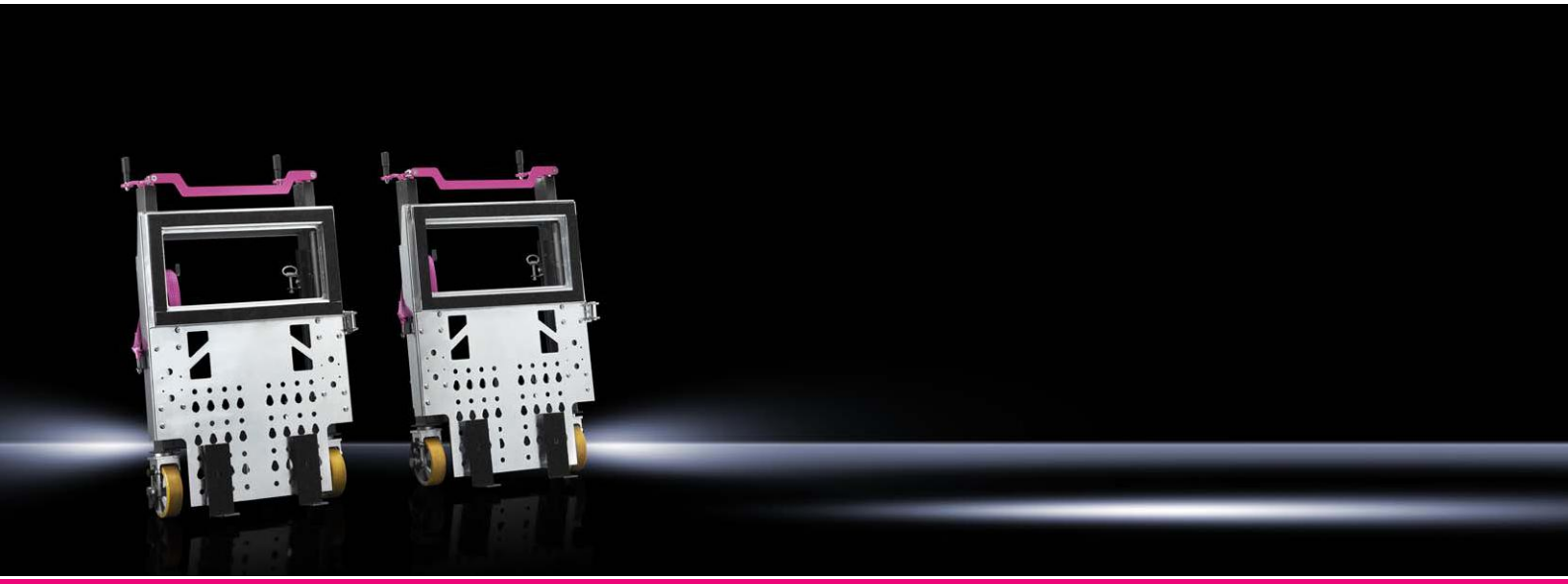
Steering system for easy manoeuvring

Simple base/plinth mounting with lift function up to 230 mm

The pick-up forks for different enclosure depths are easily adjusted

Transportation of enclosures in various lengths, depths and weights

Smart Lifter



Lifting and transport device for enclosures and enclosure suites up to 4.80 m length.

Benefits:
- Supports simple mounting of base/plinths beneath enclosures
- Easy transportation of bayed enclosures in the workshop or at the installation site
- Flexible use for enclosures of different depths, thanks to adjustable forks
- Ergonomic working (lifting and lowering) with a torque crank

Functions:
- Transportation of bayed enclosures up to a length of 4.80 m
- Lifting of bayed enclosures up to a height of 230 mm and a weight of 1800 kg

Technical specifications:
- Dimensions per trolley (W x H x D): 750 x 1100 x 400 mm

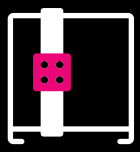
Supply includes:
- 2 transport trolleys

Model No.		**4050.005**	Page
Load capacity kg		1800	
Weight kg		70.0	

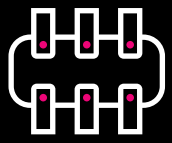
Boost efficiency, cut costs

The digital twin engineered using Eplan software tools links together all downstream processes in panel building and switchgear manufacturing 4.0.

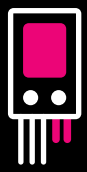
Cutting



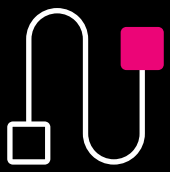
Panel Modification



Terminal Strip Assembly



Wire Fabrication



Wiring

Smart Wiring

The browser-based EPLAN Smart Wiring solution supplies all wiring data in a 100% digital form and visualises your wiring in 3D. Users benefit from a significant reduction in errors and substantial time savings. A digital twin of the enclosure also contains all the information needed for wiring enclosures. See page 32.

Wire Station WS 540 wiring workstation

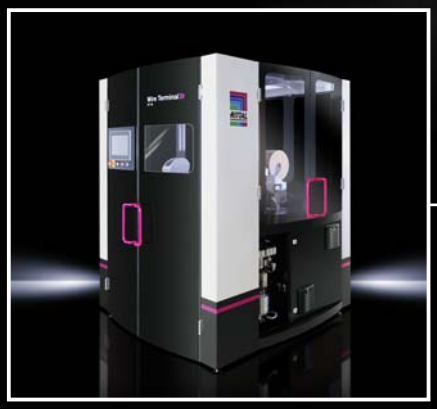
For flexible, efficient wire assembly and wiring work in the workshop. The wiring workstation is the ideal interface between the fully automated production of wires with the Rittal Wire Terminal and wiring work on mounting plates or in the enclosure. The Wire Station WS 540 is an ergonomic process optimiser for use with all wiring-related activities.

- Universal accessories tailored to the application, such as component supports for semi-automatic machines
- Optional workstation add-ons help to boost flexibility and efficiency in essential manual process stages

EPLAN Smart Wiring: Wiring made easy
- Using data from the Digital Twin
- Wire lists with filter function
- Visualisation of cable routes
- Wiring plan revision management

- Stocking and processing of pre-produced wires from the Rittal Wire Terminal
- Complete project handling with variable arrangement of the wire magazines directly at the workstation

Wire management, stocking and production
- Automatic cutting with the Rittal C8+ length-cutting machine accelerates and streamlines the manual wiring process



Wire Terminal WT fully automated wire processing machine
Fully automated wire processing with patented ordering system, see page 656

Rittal assembly frames
Flexible, straightforward handling in the workshop. Ergonomically adjustable assembly frames for building and wiring enclosures and mounting plates, see page 606

With the complete modular system surrounding the WS 540, your workstation can be functionally adapted to suit individual panel building and switchgear manufacturing requirements. Assistance is at hand for process-optimised project handling with EPLAN Smart Wiring, the Rittal length-cutting, insulation-stripping and crimping machines, and label printers. Another modular element to boost efficiency in modern panel building and switchgear manufacturing.

Optional monitor support

Integral scale and electrically adjustable operating height

Optional tool/drinks holder

Optional Mini-PC holder

Optional wire routing for up to 8 different wires

Integral socket strip

Integral shadow board to fit Rittal tools such as screwdrivers, side cutters, crimping tools etc., see page 566

To fit the following products:

4052.058, 4052.141
4052.101, 4052.142
4052.102, 4054.002
4052.104, 4054.004
4052.106, 4054.141
4052.107, 4054.300
4052.121, 4054.410
4052.122, 4054.600
4052.131, 4054.750
4052.132, 4054.850

Wire Station WS 540

Accessories for Wire Station WS 540 Page 621 **Length-cutting machine C8+** Page 632 **Crimping machines** From page 634

Mobile wiring workstation, height-adjustable, for flexible use in the workshop. For ergonomic, fatigue-free wire processing work.

Benefits:
- Electronically adjustable desk for the optimum working height, adjustable from 710 – 1250 mm
- Multiplex worktop, washable and scratch-resistant
- Ideal solution in conjunction with the length-cutting and crimping machines plus pre-assembled wires with the Wire Terminal
- Integral scale for quick manual measurements
- Prepared to accommodate a monitor for wire processing with EPLAN Smart Wiring
- Optionally expandable with shelves for wire boxes, wire reels and holders for tools and small parts
- For flexible use in the workshop thanks to rubberised wheels
- Drawer with shadow board prepared for tools

Supply includes:
- Wiring table with electrical height adjuster
- Connection cable, 7 m
- 7-way socket strip, with rocker switch

Note:
- The vertical mounting braces, Model No. 4051.106, are required for accessories such as storage box holders, magazine supports etc.

Model No.	Packs of	**4051.100**	Page
Dimensions (W x H x D) mm		900 x 1350 x 781	
Working height (min./max.) mm		710 / 1205	
Input voltage		230 V AC, 50 Hz	
Weight kg		95.0	
Accessories			
Shelf	2 pc(s).	4051.101	621
Component support, left	1 pc(s).	4051.102	621
Component support, right	1 pc(s).	4051.103	622
Monitor attachment	1 pc(s).	4051.104	622
LED work light	1 pc(s).	4051.105	623
Mounting braces, vertical	1 pc(s).	4051.106	623
Storage box holder	1 pc(s).	4051.107	624
Adaptor bracket	1 pc(s).	4051.108	624
Waste bin	1 pc(s).	4051.115	624
Socket strip	1 pc(s).	4051.114	625
Magazine support	1 pc(s).	4051.111	625
Wire routing for mounting braces, vertical	1 pc(s).	4051.120	625
Wire routing for component support, left	1 pc(s).	4051.121	626
Wire pack holder		see page	626
Wire coil holder		see page	627
Wire reel holder	1 pc(s).	4050.216	609
Tool holder, round	1 pc(s).	4051.113	627
Stripping machine console	1 pc(s).	4051.112	628
Universal utility shelf	1 pc(s).	4051.109	628
Mini-PC holder	1 pc(s).	4051.110	628

Shelf

for WS 540

Shelf set for mounting below the desktop. Different shelf depths provide ample knee and leg room for seated working at the workstation.

Benefits:
- For optimum use of the space beneath the desktop without restricting legroom
- Tool-free mounting of the shelves by simply hanging in place

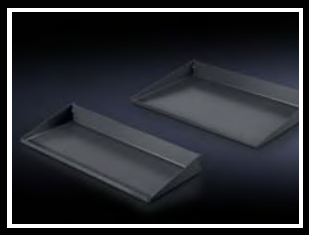
Technical specifications:
- Top shelf (W x D): 510 x 335 mm
- Bottom shelf (W x D): 510 x 200 mm

Material:
- Sheet steel

Colour:
- RAL 7016

Supply includes:
- 2 shelves

Packs of	Model No.
2 pc(s).	**4051.101**



Component support, left

for WS 540

Component support unit to fit length-cutting machine C8+ and an additional shelf to accommodate most common label printer brands. Mounted on the left of the WS 540 Wire Station.

Benefits:
- Additional shelf for universal use
- Compact external mounting
- Flexibly adjustable in the width and height

Technical specifications:
- Component support (W x H x D): 360 x 335 x 20 mm, including height adjustment of 480 mm
- Support arm (W x H): 500 x 700 mm
- Shelf (W x H x D): 417 x 267 x 20 mm

Material:
- Sheet steel

Colour:
- RAL 7016

Supply includes:
- Component support for the C8+ length-cutting machine
- Semi-automated machine support arm, left
- Universal shelf for printer/label printer
- Assembly parts

Packs of	Model No.
1 pc(s).	**4051.102**

for Wire Station WS 540

Component support, right

for WS 540

Component support unit to fit crimping machine RC or R8 E, for mounting on the right of the Wire Station WS 540.

Benefits:
- Compact external mounting
- Flexibly adjustable in the width and height

Technical specifications:
- Component support (W x H x D): 318 x 313 x 20 mm, including conduit for height adjustment of 480 mm
- Support arm (W x H): 500 x 700 mm

Material:
- Sheet steel

Colour:
- RAL 7016

Supply includes:
- Component support for crimping machines
- Semi-automated machine support arm, right
- Assembly parts

Packs of	Model No.
1 pc(s).	**4051.103**

Monitor attachment

for WS 540

For mounting all commercially available monitors up to screen diagonals of 32" with Vesa 75/100.

Benefits:
- Stable monitor attachment
- Vertically hinged
- Height-adjustable

Technical specifications:
- Height-adjustable up to 285 mm
- Extendable up to 430 mm
- Swivel range left/right with full extension 90°
- Swivel range of ball head 35° all-round
- Vesa 75/100

Material:
- Aluminium/sheet steel

Supply includes:
- Monitor attachment
- Assembly parts

Approvals:
- GS-tested

Load capacity max. kg	Packs of	Model No.
10	1 pc(s).	**4051.104**

LED work light

for WS 540
For attaching to the table top, with clamping device.

Benefits:
- Bright, glare- and flicker-free lighting, homogeneous and shadow-free
- Selectable colour temperature between warm white, neutral white and daylight white promotes concentration and reduces symptoms of fatigue
- Excellent colour fidelity and high contrast
- Aluminium spring arm with 3D head joint, swivelling and lockable for free positioning of the light source

Technical specifications:
- Spring arm: Length 970 mm
- Colour reproduction: 94 – 98 Ra
- Transmission angle: 100°

Material:
- Light housing: Aluminium
- Glare control: Macrolon

Protection category IP to IEC 60 529:
- IP 40

Protection class:
- III (SELV)

Supply includes:
- LED work light
- Assembly parts

Width mm	545
Height mm	90
Depth mm	35
Luminous flux lm	2930
Light	84 SMD LEDs
Rated operating voltage V, ~, Hz	110 - 240, 1~, 50/60
Power consumption W	26
Service life h	≥ 60000
Operating temperature	-10 °C...+40 °C
Length of connection cable m	3
Connection options	Plug-in power supply (CEE 7/16) with AC adaptor
Packs of	1 pc(s).
Model No.	**4051.105**

Mounting braces, vertical

for WS 540
For optional attachment of accessories such as wire pack holders, open-fronted storage boxes and shelves.

Benefits:
- Individual and functional configuration with component supports, storage box holders, consoles, wire pack holders, etc.
- Simple screw-fastening of accessories
- Individual height adjustment of the accessories with a rail system

Technical specifications:
- Dimensions (W x H x D): 85 x 1350 x 50 mm

Material:
- Sheet steel

Colour:
- RAL 7016

Packs of	**Model No.**
1 pc(s).	**4051.106**

for Wire Station WS 540

Storage box holder

for WS 540

For fastening to the vertical mounting braces of the WS 540 and for storing small parts and accessories.

Technical specifications:
- Dimensions of storage box holder (W x H x D): 110 x 350 x 15 mm
- Dimensions of open-fronted storage box (W x H x D): 100 x 85 x 160 mm

Material:
- Support: Sheet steel
- Open-fronted storage boxes: Plastic

Colour:
- Support: RAL 7016
- Open-fronted storage boxes: Yellow

Supply includes:
- Storage box holder
- 3 open-fronted storage boxes
- Assembly parts

Packs of	Model No.
1 pc(s).	**4051.107**

Also required:
- Mounting braces, vertical, see page 623

Adaptor bracket

for WS 540

For individual configuration and enlargement of the WS 540. The adaptor bracket is required for mounting additional vertical mounting braces and supports a range of width settings from 50 – 400 mm.

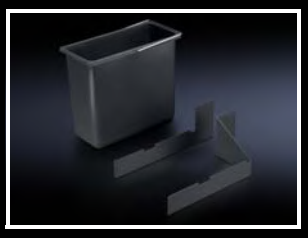
Technical specifications:
- Side dimensions (W x H): 483 x 383 mm

Material:
- Sheet steel

Colour:
- RAL 7016

Packs of	Model No.
1 pc(s).	**4051.108**

Also required:
- Mounting braces, vertical, see page 623



Waste bin

for WS 540

For waste disposal directly at the workstation.

Benefits:
- Front mounting without impairing legroom

Technical specifications:
- Dimensions (W x H x D): 150 x 290 x 320 mm
- Capacity: 12 litres

Material:
- Plastic

Colour:
- Dark grey

Supply includes:
- Waste bin
- Bracket
- Assembly parts

Packs of	Model No.
1 pc(s).	**4051.115**

Socket strip

for WS 540
For mounting on the worktop of the WS 540.

Design:
– 5-way, with rocker switch (green)

Benefits:
– Ergonomic access thanks to the 45° angle on the worktop

Material:
– Extrusion: Aluminium
– Socket inserts: Plastic

Supply includes:
– Socket strip, connection cable and earthing contact plug
– Assembly parts

Electrical connection V, Hz	Rated current A	Packs of	Model No.
230, 50	16	1 pc(s).	**4051.114**

Magazine support

for WS 540
To accommodate up to 4 wire rail magazines with pre-assembled wires from the Wire Terminal WT.

Benefits:
– For universal use on any mounting brace, vertical

Technical specifications:
– Dimensions (W x H x D): 330 x 200 x 35 mm

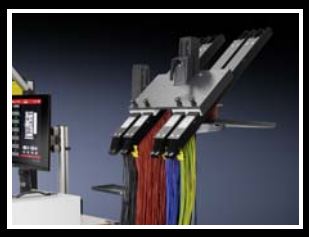
Material:
– Sheet steel

Colour:
– RAL 7016

Supply includes:
– Magazine support
– Assembly parts

Packs of	Model No.
1 pc(s).	**4051.111**

Also required:
– Mounting braces, vertical, see page 623



Wire routing for mounting braces, vertical

for WS 540
Targeted wire routing for up to 8 different wires is supported. Mounting on the vertical mounting braces.

Benefits:
– Individually height-adjustable on the mounting brace
– Optimum running characteristics of the wires

Technical specifications:
– Dimensions (W x H x D): 130 x 263 x 322 mm
– Depth adjustment directly at the wire guide up to 100 mm
– Wire routing from 0.5 – 2.5 mm^2 supported

Material:
– Holder: Sheet steel
– Reel and wire guide: Plastic

Packs of	Model No.
1 pc(s).	**4051.120**

Also required:
– Mounting braces, vertical, see page 623

for Wire Station WS 540

Wire routing for component support, left

for WS 540

Targeted wire routing for up to 8 different wires is supported. For mounting on the component support, left.

Benefits:
- Optimum wire routing to the C8+ length-cutting centre
- Optimum running characteristics of the wires

Technical specifications:
- Dimensions (W x H x D): 129 x 190 x 169 mm
- Wire routing from 0.5 – 2.5 mm^2 supported

Material:
- Holder: Sheet steel
- Reel and wire guide: Plastic

Packs of	**Model No.**
1 pc(s).	**4051.121**

Also required:
- Component support, left, see page 621

Wire pack holder

Shelf for wire packs, to fit assembly frames and WS 540. Attached to the Wire Station on the vertical mounting braces on the left or right.

Technical specifications:
- Dimensions of wire pack holder (W x H x D): 207 x 105 x 207 mm
- Storage space to fit wire packs up to a maximum size of 207 x 207 mm

Material:
- Sheet steel

Colour:
- RAL 7016

Supply includes:
- Wire pack holder
- Assembly parts

To fit Model No.	Design	Packs of	**Model No.**
4051.100/ 4050.150/ 4050.200/ 4050.300	left	1 pc(s).	**4051.116**
4051.100/ 4050.150/ 4050.200/ 4050.300	right	1 pc(s).	**4051.117**

Also required:
- Mounting braces, vertical, see page 623

Wire coil holder

Wire coil shelf to fit assembly frames and WS 540. Attached to the Wire Station on the vertical mounting braces on the left or right.

Technical specifications:
– Storage space (W x H x D): 375 x 20 x 475 mm

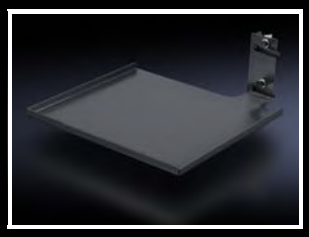
Material:
– Sheet steel

Colour:
– RAL 7016

Supply includes:
– Wire coil holder
– Assembly parts

To fit Model No.	Design	Packs of	**Model No.**
4051.100/ 4050.150/ 4050.200/ 4050.300	left	1 pc(s).	**4051.118**
4051.100/ 4050.150/ 4050.200/ 4050.300	right	1 pc(s).	**4051.119**

Also required:
– Mounting braces, vertical, see page 623



Tool holder, round

for WS 540
For safe storage of hand-held devices or drinks. The tool holder is secured to the desktop.

Applications:
– Holder for hand tools such as cordless screwdrivers, hot-air dryers or beverage bottles
– For hand-held tools up to 80 mm in diameter

Technical specifications:
– Dimensions (W x H x D): 140 x 87 x 200 mm

Material:
– Sheet steel

Colour:
– RAL 7016

Supply includes:
– Tool holder, round
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**4051.113**

for Wire Station WS 540

Stripping machine console

for WS 540

For positioning the S22 stripping machine on the WS 540. The console may be positioned on either the left or right.

Technical specifications:
– Console area (W x D): 278 x 178 mm
– Height-adjustable up to 480 mm

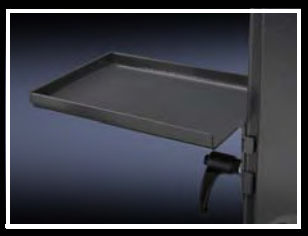
Material:
– Sheet steel

Colour:
– RAL 7016

Packs of	Model No.
1 pc(s).	**4051.112**

Assembly instruction:

– The stripping machine console is also suitable for component supports 4051.102 and 4051.103



Universal utility shelf

for WS 540

Universal utility shelf for mounting on the vertical mounting braces of the WS 540. Storage for tools or small parts.

Technical specifications:
– Dimensions (W x H x D): 130 x 15 x 190 mm

Material:
– Sheet steel

Colour:
– RAL 7016

Supply includes:
– Universal utility shelf
– Assembly parts

Packs of	Model No.
1 pc(s).	**4051.109**

Also required:

– Mounting braces, vertical, see page 623

Mini-PC holder

for WS 540

For secure attachment of a mini-PC to the WS 540. The holder is mounted underneath the workbench on the left.

Technical specifications:
– Dimensions (W x H x D): 70 x 235 x 200 mm
– Individually adjustable up to 60 mm

Material:
– Sheet steel

Colour:
– RAL 7016

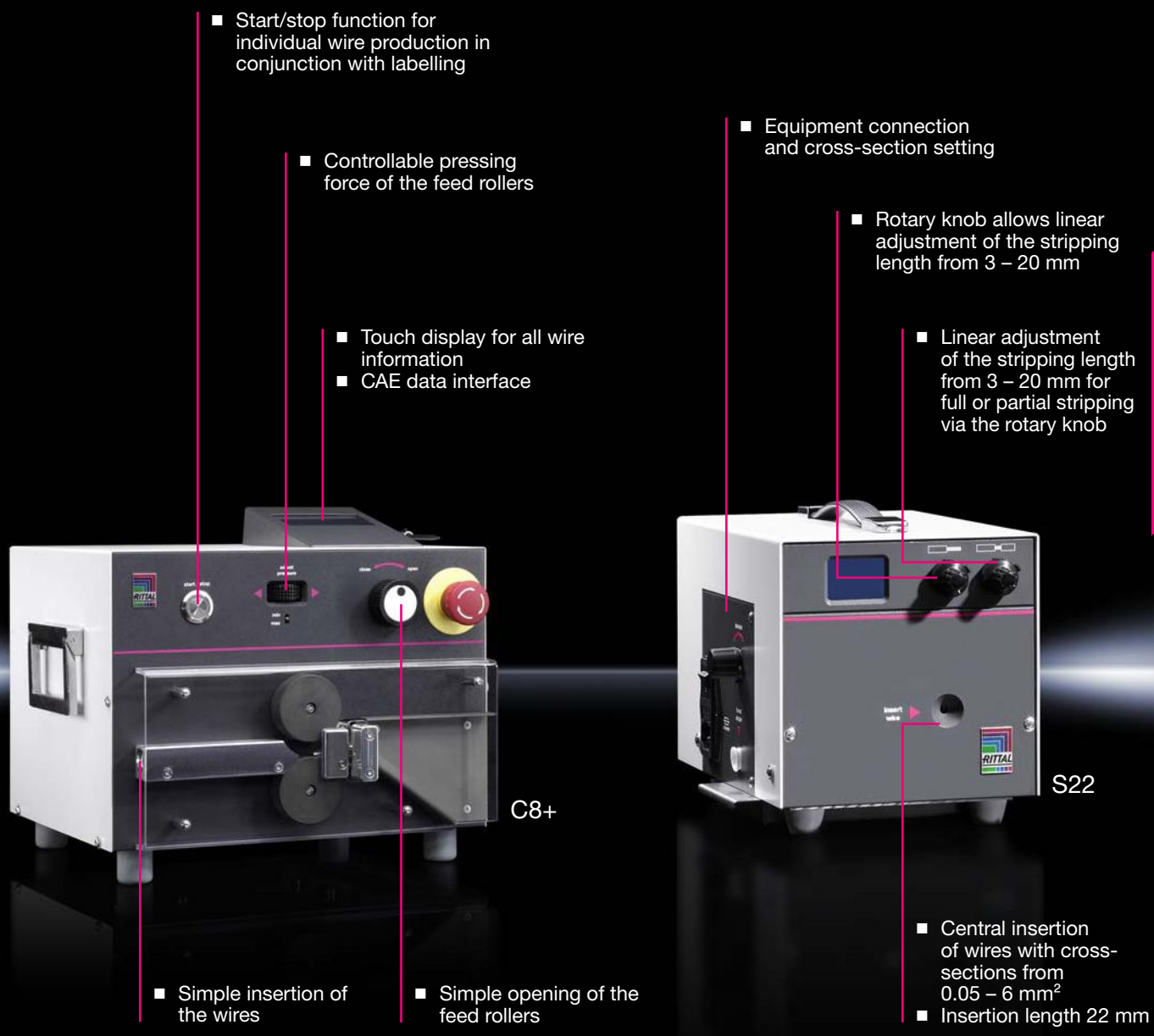
Supply includes:
– Mini-PC holder
– Assembly parts

Packs of	Model No.
1 pc(s).	**4051.110**

Length-cutting machine C8+ and stripping machine S22

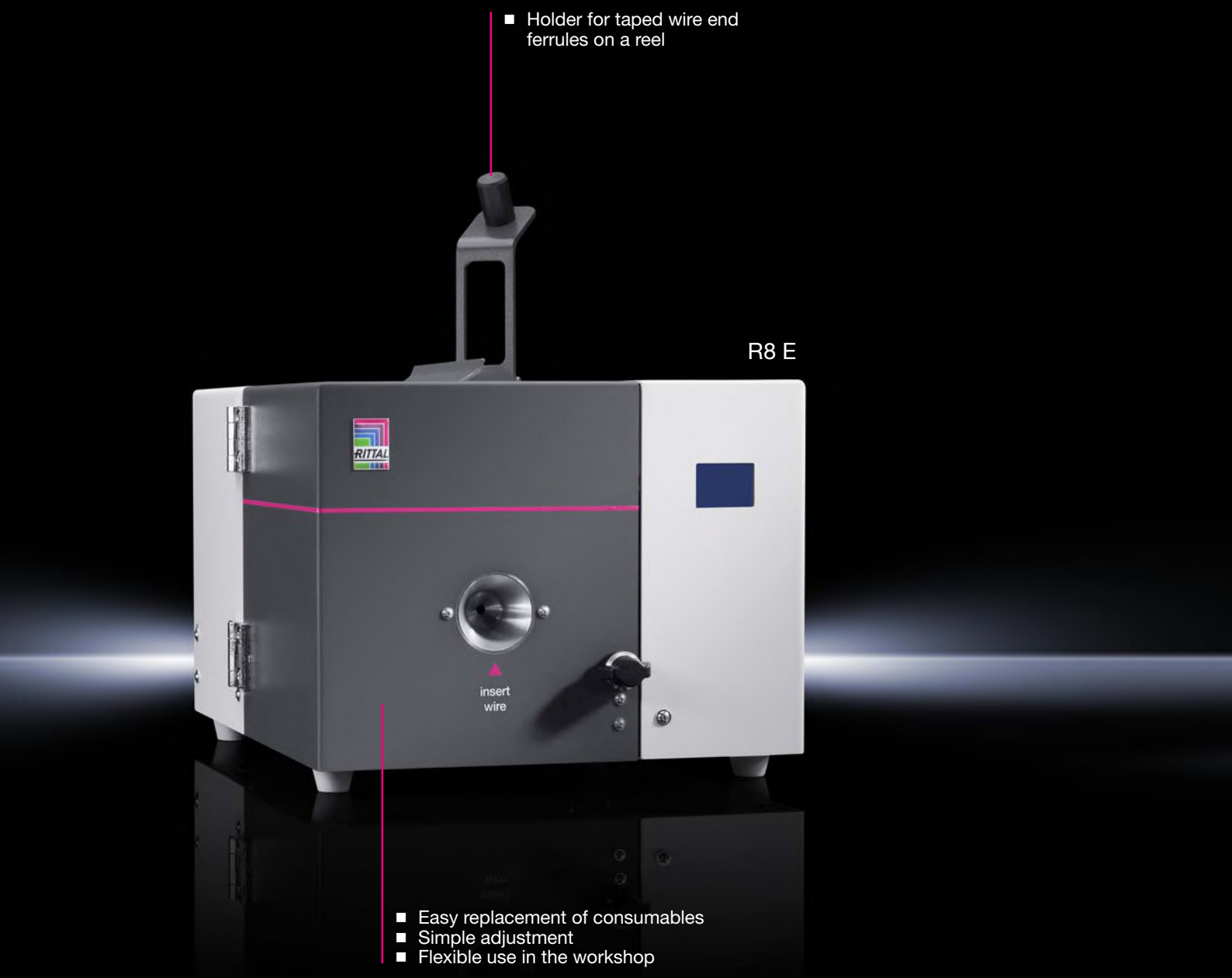
The length-cutting machine C8+ makes work processes more efficient by cutting wires up to 8 mm diameter or 10 mm² cross-section to individually set lengths. Cutting orders can also be managed, documented and transmitted to the length-cutting machine C8+ from a PC or CAE data interface (EPLAN Pro Panel) via USB. In this way, the C8+ length-cutting machine additionally supports the cable labelling and wiring process by displaying the source/target code.

The stripping machine S22 is electrically powered for accurate, careful stripping of the insulation from your wires.



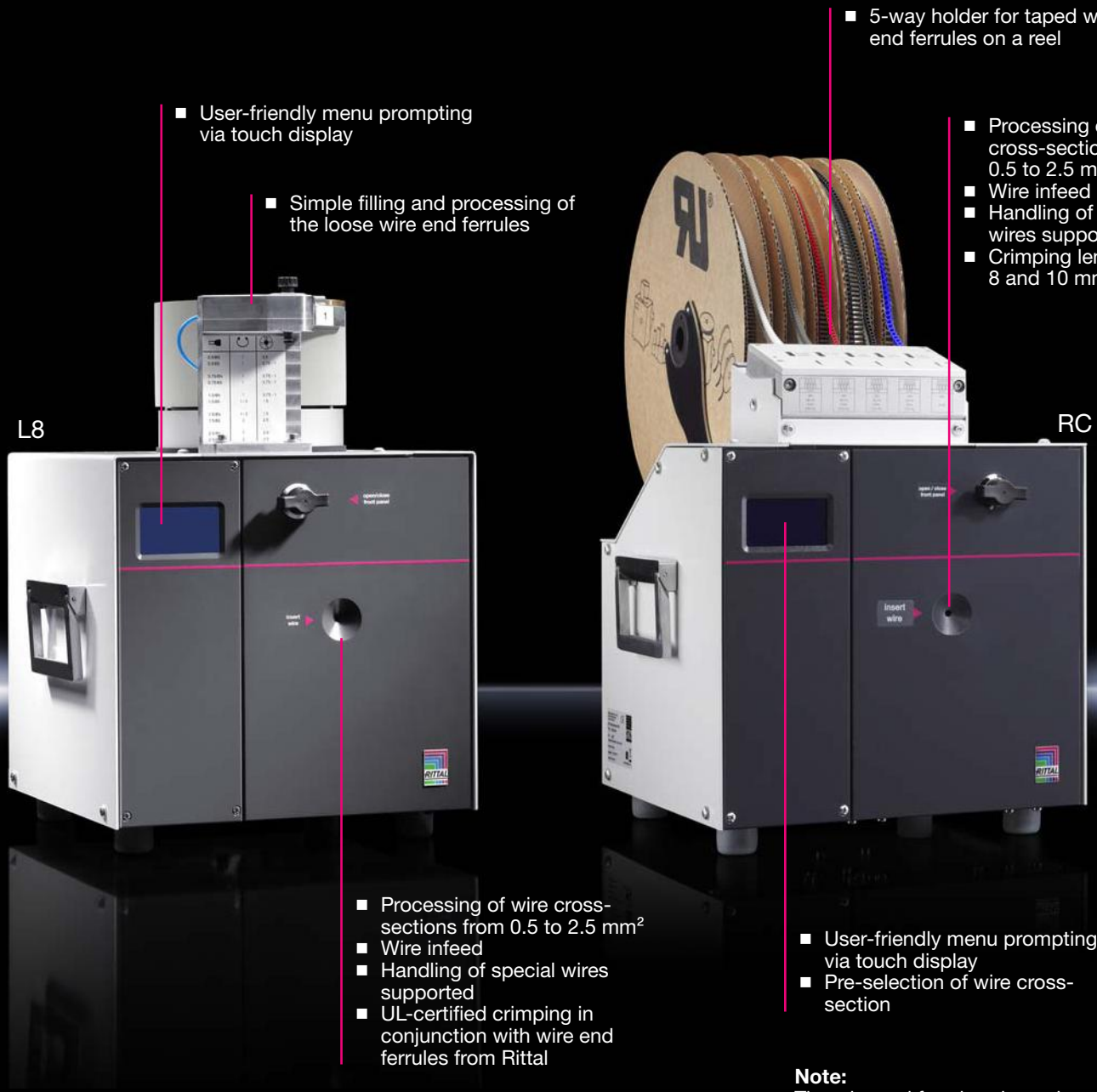
Stripping and crimping machine R8 E

The electrically driven R8 E crimping machine processes insulated wire end ferrules and standard PVC cables in cross-sections ranging from 0.5 to 2.5 mm² (AWG 20 – 14) with a crimping length of 8 mm. For flexible use in the workshop, all you need is a power connection. The machine guarantees UL-certified crimping in conjunction with wire end ferrules from Rittal.



Stripping and crimping machines L8 and RC

Electro-pneumatically driven wire-stripping and crimping machines for safe, fast processing of insulated wire end ferrules. The particular feature of our electro-pneumatic crimping machines is their fully automated detection of the wire cross-section and processing of the wire end ferrules. No tool changes are required. Linear adjustment of the blades and the high forces generated by the pneumatic crimping unit support the processing of all standard cables as well as special ferrules (AWG) in the application range from 0.5 to 2.5 mm² (AWG 20 – 14) with a crimping length of 8 mm. The integrated daily unit counter provides a continuous overview of your project quantities.
The crimping machine RC is suitable for processing wire end ferrules in 8 mm and 10 mm lengths with labelling on the underside. The 5-way holder eliminates the need to switch between wire end ferrules for different cross-sections.



Note:
The wire end ferrules shown here are not included with the supply.

Length-cutting machine C8+

Semi-automated machine for cutting wires to an individually adjustable length.

Design:
– With command panel
– Stop & go function

Benefits:
– User-friendly operation
– Simple insertion of the wires
– Simple opening of the feed rollers
– PC compatible
– Length-cutting with interface to CAE data supported
– Supports the process of labelling cables by showing the connection point on the display
– Simply transmit projects and orders to length-cutting machine C8+

Technical specifications:
– Fine-wire strand 0.08 - 10 mm^2 (AWG 28 - 8)
– Single-wire strand 0.08 - 2.5 mm^2 (AWG 28 - 14)
– For wire lengths 1 - 99999 mm
– Feed rate 0 - 1.5 m/s
– Controllable pressing force of the feed rollers
– DC servo-drive
– Insertion length 27 mm (1.06 in.)

Supply includes:
– Length-cutting machine C8+
– Connection cable with connector
– Software connection, CAE data
– Installation CD

Model No.	Packs of	**4050.455**	Page
Machine dimensions (W x H x D) mm		380 x 470 x 360	
Cycle time s		< 2	
Electrical connection V, ~, Hz		100 - 240, 1~, 50	
Apparent power VA		240	
Interfaces		EPLAN Pro Panel CAE data	
Weight kg		20.0	
Accessories			
Wire dispenser	1 pc(s).	4050.463	637

Stripping machine S22

Semi-automated machine for stripping wires of varying cross-section ranges.

Design:
- Touchscreen display
- Integral counter (total quantity)
- Integral counter (daily quantity)
- Linear adjustment of the wire stripping length

Benefits:
- Cross-section is easily set using the rotary knob
- Simple insertion of the wires
- User-friendly operation

Technical specifications:
- Electrically powered
- Wire stripping range 0.05 - 6 mm² (AWG 30 - 10)
- Insulation stripping length 3 - 20 mm (0.12 - 0.79 in.)
- Draw-off length 3 - 20 mm (0.12 - 0.79 in.)
- Insertion length 22 mm (0.87 in.)

Supply includes:
- Stripping machine S22
- Special funnel for inserting thin conductors
- Spare blades

Model No.	Packs of	**4050.451**	Page
Machine dimensions (W x H x D) mm		190 x 190 x 295	
Cycle time s		0.5	
Electrical connection V, ~, Hz		100 - 240, 1~, 50/60	
Apparent power VA		70	
Weight kg		7.5	

Crimping machine R8 E

Wire end ferrules Page 578

Electrically powered wire stripping and crimping machine for taped wire end ferrules on a reel.

Design:
– Touchscreen display

Benefits:
– Easy to operate
– Fast adjustment
– Flexible use in the workshop
– Rapid replacement of consumables

Technical specifications:
– Crimping range 0.5 - 2.5 mm^2 (AWG 20 - 14)
– Crimping length 8 mm (0.31 in.)
– Insertion length 40 mm (1.57 in.)

Note:
– The standard crimping form is trapezoid – others available on request

Model No.	Packs of	**4050.454**	Page
Machine dimensions (W x H x D) mm		288 x 230 x 345	
Cycle time s		1.8	
Compression		Trapezoid crimp	
Electrical connection V, ~, Hz		100 - 240, 1~, 50/60	
Apparent power VA		100	
Weight kg		16.0	
Accessories			
Wire end ferrules		see page	578

Crimping machine L8

Wire end ferrules Page 578

Electro-pneumatically driven wire stripping and crimping centre for loose, insulated wire end ferrules.

Design:
– Touchscreen display

Benefits:
– Easy to operate
– Secure, fast processing of insulated wire end ferrules
– No set-up time, thanks to automatic tool change
– Handling of special wires supported
– Simple, quick component mounting
– Automatic detection of cross-sections

Technical specifications:
– Crimping range 0.5 - 2.5 mm^2 (AWG 20 - 14)
– Crimping length 8 mm (0.31 in.)
– Insertion length 35 mm (1.38 in.)
– Processing of wire end ferrules with plastic collars in special sizes supported

Supply includes:
– Crimping machine L8
– 1 oscillating conveyor 0.5 - 1.5 mm^2
– 1 oscillating conveyor 1.5 - 2.5 mm^2

Note:
– The standard crimping form is trapezoid – others available on request

Model No.	Packs of	**4050.452**	Page
Machine dimensions (W x H x D) mm		390 x 460 x 330	
Cycle time s		1.5	
Compression		Trapezoid crimp	
Electrical connection V, ~, Hz		100 - 240, 1~, 50/60	
Apparent power VA		110	
Compressed air connection bar		5.5	
Weight kg		31.0	
Accessories			
Oscillating conveyor		see page	637
Wire end ferrules		see page	581

Crimping machine RC

Wire end ferrules Page 578

Electropneumatic crimping machine with 5-way magazine for processing insulated wire end ferrules on a reel.

Design:
- Touchscreen display
- Select the wire cross-section via touchscreen
- Support may be fitted with a maximum of 23,000 wire end ferrules

Benefits:
- Easy to operate
- Secure, fast processing of insulated wire end ferrules
- No set-up time, thanks to automatic tool change
- Simple, quick component mounting
- No changing of the wire end ferrules required due to 5-way magazine

Technical specifications:
- Crimping range 0.5 - 2.5 mm^2 (AWG 20 - 14)
- Crimping length 8 and 10 mm
- Insertion length 27 mm (1.06 in.)

Note:
- The standard crimping form is trapezoid – others available on request

Model No.	Packs of	**4050.456**	Page
Machine dimensions (W x H x D) mm		335 x 565 x 485	
Cycle time s		< 2	
Compression		Trapezoid crimp	
Electrical connection V, ~, Hz		100 - 240, 1~, 50/60	
Apparent power VA		16	
Compressed air connection bar		5.5	
Weight kg		22.0	
Accessories			
Wire end ferrules		see page	578

Oscillating conveyor

for crimping machine L8
Feed guide for loose wire end ferrules.

Benefits:
– Accurate, careful feeding of wire end ferrules

To fit Model No.	Application	Packs of	**Model No.**
4050.452	For loose wire end ferrules with cross-section 0.5 – 1.5 mm^2	1 pc(s).	**4050.467**
4050.452	For loose wire end ferrules with cross-section 1.5 – 2.5 mm^2	1 pc(s).	**4050.468**

Wire dispenser

for length-cutting machine
Dispensing device for the infeed of conductors. Suitable for conductors on cable coils or from boxes.

Benefits:
– Convenient removal and dispensing of cables and wires

Technical specifications:
– Cable coil diameter ≤ 300 mm (≤ 11.8 in.)
– Cable coil width ≤ 200 mm (≤ 7.9 in.)
– Clamping cone 15 - 23 mm (0.59 - 0.91 in.)
– Box dimensions 240 x 250 x 150 mm (9.45 x 9.84 x 5.9 in.)

Packs of	**Model No.**
1 pc(s).	**4050.463**

Busbar machining, static CW 120-S

The units in the CW 120-S product series are ideal for bending, punching and cutting busbars. The integral precision laser facilitates the cutting and bending process.

Electro-hydraulic pump
- To operate products in the CW 120-S product series.

Busbar cutting unit
- Time savings compared to manual cutting
- Precise marking of the cutting point

Busbar bending and hole-punching unit
- Simple tool changes
- High level of bending and punching accuracy
- Independent busbar machining

Machining examples for the CW 120-S

Punching

Cutting a busbar to length

Bending a busbar

Busbar machining, mobile CW 120-M

The Copper Workstation CW 120-M is ideal for bending, punching and cutting busbars. It supports cutting and bending up to a maximum width of 120 mm and a maximum thickness of 12 mm. The integral precision laser facilitates the cutting and bending process. Generally speaking, round holes with a diameter of 6.6 to 21.5 mm and slots up to a maximum width of 18 mm and a length of 21 mm may be punched.

Machining examples for the CW 120-M

Cutting busbars to length with integral precision laser

Bending busbars

Punching busbars, pull-out measurement system

Making cut-outs in steel and stainless steel (accessories, hydraulic hose and cylinder, see page 645)

Busbar bending and hole-punching unit CW 120-S

Female dies Page 643 **Male dies** Page 643 **Accessories** Page 644

The bending and hole-punching unit in the CW 120-S product series is ideal for bending and punching busbars. Round holes and slots may be punched. The bending and hole-punching unit is easily positioned on a workbench.

Design:
- Electric protractor
- Length stop
- Mandrel R10
- Bending die
- Laser pointer (auxiliary laser), beam power laser class 1

Benefits:
- High level of bending and punching accuracy
- Simple tool changes

Machinable material:
- Copper
- Aluminium

Note:
- With a Z bend, the length of the short side depends on the material thickness

Model No.	Packs of	**4055.700**	Page
Machine dimensions (W x H x D) mm		700 x 410 x 461	
Footprint size (W x H x D) mm		756 x 426 x 461	
Bending (max.) mm		120 x 12	
Bending angle (max.) °		90	
Bending/side length (min.) mm		50	
U-bending (min.) mm		100	
Z-bending (min.) mm		72	
Punching (max.) mm		6.6 x 21.5	
Punching/material thickness (max.) mm		12	
Punching/material width (max.) mm		120	
Weight kg		60.0	
Also required			
Electro-hydraulic pump	1 pc(s).	4055.720	644
Foot-switch	1 pc(s).	4055.712	644

Busbar cutting unit CW 120-S

Accessories Page 644

The cutting unit in the CW 120-S product series is ideal for cutting busbars to length. The unit is easily mounted on a workbench.

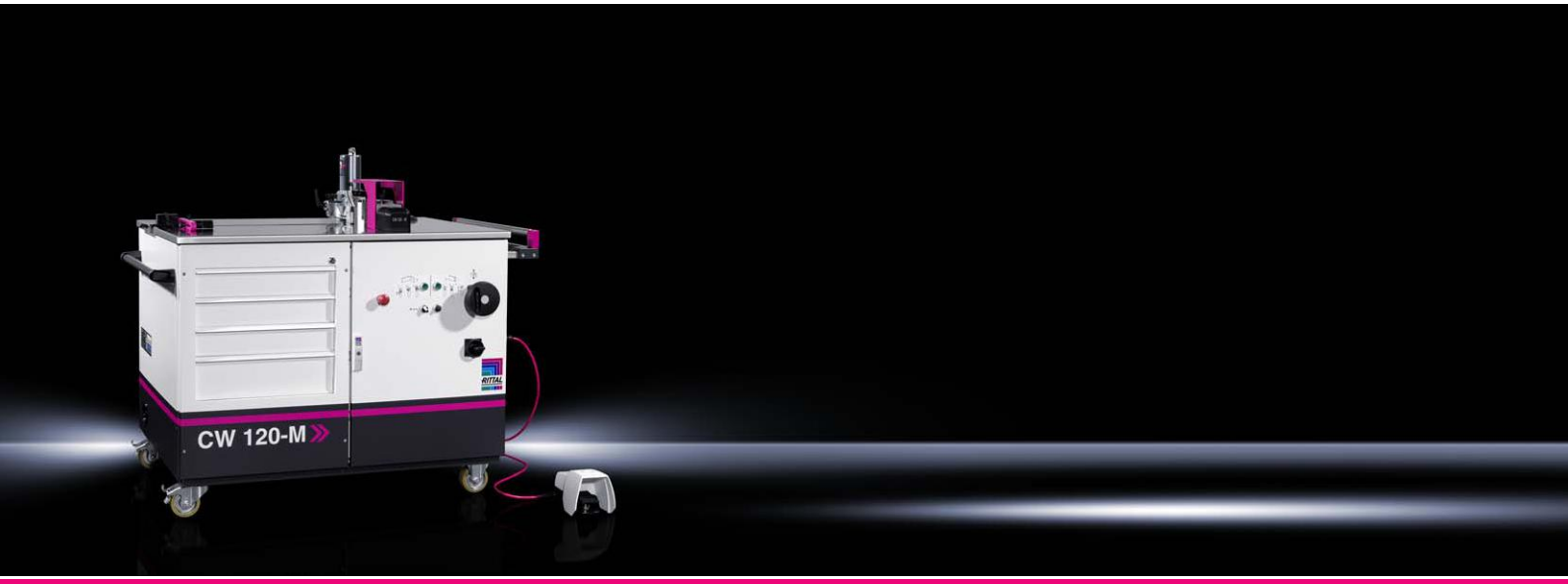
Design:
- Laser pointer (auxiliary laser), beam power laser class 1

Benefits:
- Significant time savings compared to manual cutting

Machinable material:
- Copper
- Aluminium

Model No.	Packs of	**4055.710**	Page
Machine dimensions (W x H x D) mm		335 x 370 x 275	
Footprint size (W x H x D) mm		283 x 318 x 372	
Cutting (max.) mm		120 x 12	
Weight kg		20.5	
Also required			
Electro-hydraulic pump	1 pc(s).	4055.720	644
Foot-switch	1 pc(s).	4055.712	644
Accessories			
Ride-up roller	2 pc(s).	4055.714	645

Busbar machining CW 120-M



Female dies Page 643 **Male dies** Page 643 **Accessories** Page 644

The mobile product solution for busbar machining is ideal for the precise, fast and ergonomic bending, punching and cutting of busbars directly at your workstation. The integral precision laser facilitates the cutting and bending process.

Design:
- Electric protractor
- Mandrel R10
- Bending die
- External 230 V power inlet
- Pull-out side support extension for long rails
- External hydraulic connection for almost all machining options
- 4 castors (2 lockable)
- Drawer pull-outs
- Integral hydraulic pump
- Laser pointer (auxiliary laser), beam power laser class 1
- Length end stop, pull-out

Benefits:
- High level of bending and punching accuracy
- Simple tool changes
- Flexible use in the workshop

Machinable material:
- Copper
- Aluminium

Supply includes:
- Busbar machining, mobile CW 120-M
- Foot-switch

Note:
- With a Z bend, the length of the short side depends on the material thickness
- For punching, slots of up to a max. of 21 x 18 mm are also supported
- Slot tools available on request
- We reserve the right to make technical modifications

Model No.	Packs of	**4055.800**	Page
Machine dimensions (W x H x D) mm		1380 x 1270 x 945	
Support surface (W x D) mm		811 x 1211	
Working height mm		974	
Power consumption kW		2.2	
Electrical connection V, Hz		230, 50/60	
Permissible operating pressure (p. max.) bar		700	
Bending (max.) mm		120 x 12	
Bending angle (max.) °		90	
Bending/side length (min.) mm		50	
Z-bending (min.) mm		72	
Punching (max.) mm		6.6 x 21.5	
Punching/material thickness (max.) mm		12	
Cutting (max.) mm		120 x 12	
Length stop (max.) mm		1224	
Weight kg		390.0	
Accessories			
Hydraulic hose	1 pc(s).	4055.807	645
Hydraulic cylinder	1 pc(s).	4055.806	645
Male and female dies for slots	1 pc(s).	4055.791	644

Male dies

Male dies for punching round holes in busbars.

Machinable material:
– Copper

Thread	Diameter mm	Material thickness (max.) mm	Packs of	**Model No.**
M6	6.6	10	1 pc(s).	**4055.740**
M8	9	12	1 pc(s).	**4055.741**
M8	9.5	12	1 pc(s).	**4055.742**
M10	11	12	1 pc(s).	**4055.743**
M10	11.5	12	1 pc(s).	**4055.744**
M12	13.5	12	1 pc(s).	**4055.745**
M12	14	12	1 pc(s).	**4055.746**
M16	17.5	12	1 pc(s).	**4055.747**
M16	18	12	1 pc(s).	**4055.748**
M20	21	12	1 pc(s).	**4055.749**
M20	21.5	12	1 pc(s).	**4055.750**

Also required:
– Busbar bending and hole-punching unit CW 120-S, see page 640
– Busbar machining CW 120-M, see page 642
– Female dies, see page 643

Female dies

The female dies should be used in combination with the respective male die. This allows round holes to be punched in busbars.

Machinable material:
– Copper

Diameter mm	Material thickness (max.) mm	Packs of	**Model No.**
6.6	10	1 pc(s).	**4055.770**
9	12	1 pc(s).	**4055.771**
9.5	12	1 pc(s).	**4055.772**
11	12	1 pc(s).	**4055.773**
11.5	12	1 pc(s).	**4055.774**
13.5	12	1 pc(s).	**4055.775**
14	12	1 pc(s).	**4055.776**
17.5	12	1 pc(s).	**4055.777**
18	12	1 pc(s).	**4055.778**
21	12	1 pc(s).	**4055.779**
21.5	12	1 pc(s).	**4055.780**

Also required:
– Busbar bending and hole-punching unit CW 120-S, see page 640
– Male dies, see page 643
– Busbar machining CW 120-M, see page 642

for busbar machining CW 120

Male and female dies for slots

For incorporating slots up to max. 21 x 18 mm into busbars.

Machinable material:
– Copper

Supply includes:
– Male and female dies for slots

Note:
– Slot tools available on request

Packs of	**Model No.**
1 pc(s).	**4055.791**

Also required:
– Busbar bending and hole-punching unit CW 120-S, see page 640
– Busbar machining CW 120-M, see page 642

Electro-hydraulic pump

The electro-hydraulic pump is used to drive products in the CW 120-S product series.

Oil type	HLP 32
Delivery rate (max.) l/min	1.1
Fill volume l	3.2
Work volume l	2.2
Permissible operating pressure (p. max.) bar	700
Machine dimensions (W x H x D) mm	400 x 325 x 335
Space requirements (W x H x D) mm	402 x 342 x 397
Electrical connection V, Hz	230, 50
Power consumption kW	1.3
Rated current A	5.65
Packs of	1 pc(s).
Model No.	**4055.720**

Foot-switch

Footswitch including connection cable, for using busbar machining equipment from the CW 120-S range.

Packs of	**Model No.**
1 pc(s).	**4055.712**

Hydraulic cylinder

The hydraulic cylinder is ideal for making cut-outs in sheet steel and stainless steel. It is used in conjunction with the hydraulic pump or the CW 120-M.

Design:
– With quick-release coupling

Benefits:
– Flexible use in the workshop
– Ergonomic handling
– Allows you to create cut-outs without the application of force

Machinable material:
– Sheet steel
– Stainless steel

Punching force t	Packs of	**Model No.**
11	1 pc(s).	**4055.806**

Also required:
– Hydraulic hose, see page 645

Hydraulic hose

The hydraulic hose, in combination with the hydraulic cylinder, allows round, square and rectangular cut-outs to be punched in sheet steel and stainless steel. It is used in conjunction with the hydraulic pump or the CW 120-M.

Design:
– Double-walled

Length m	Packs of	**Model No.**
3	1 pc(s).	**4055.807**

Ride-up roller

for busbars
Ride-up roller for user-friendly handling when cutting busbars to size.

Packs of	**Model No.**
2 pc(s).	**4055.714**

Boost productivity at every step

Seamless optimisation of all process stages. The efficiency of panel building and switchgear manufacturing is determined by the quality of productivity, as well as all automated and manual work stages. Digitalization supports the ideal workflow, from engineering right through to production.

Machining
- Significant time savings with the Perforex BC milling centre
- High level of precision with the Perforex BC laser centre
- Less wastage with the Secarex AC 18 cutting centre

Component mounting
- Efficient population of terminal blocks on support rails with the Athex TC 80 CS terminal block assembly centre

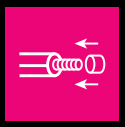
Wire processing and wiring
- Faster processes, thanks to fully automated wire processing with the Wire Terminal WT

Perfecting the hand tool

High-quality hand tools for professional use in industry and trade,
from page 565

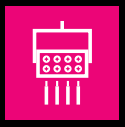
Simplify handling

Ergonomic, efficient handling systems for transport and lifting operations,
from page 606



Systematise wire processing

Professional, rational solutions for manual wire machining and processing
Crimping tools, from page 574
Semi-automatic machines, from page 632



Streamline wiring

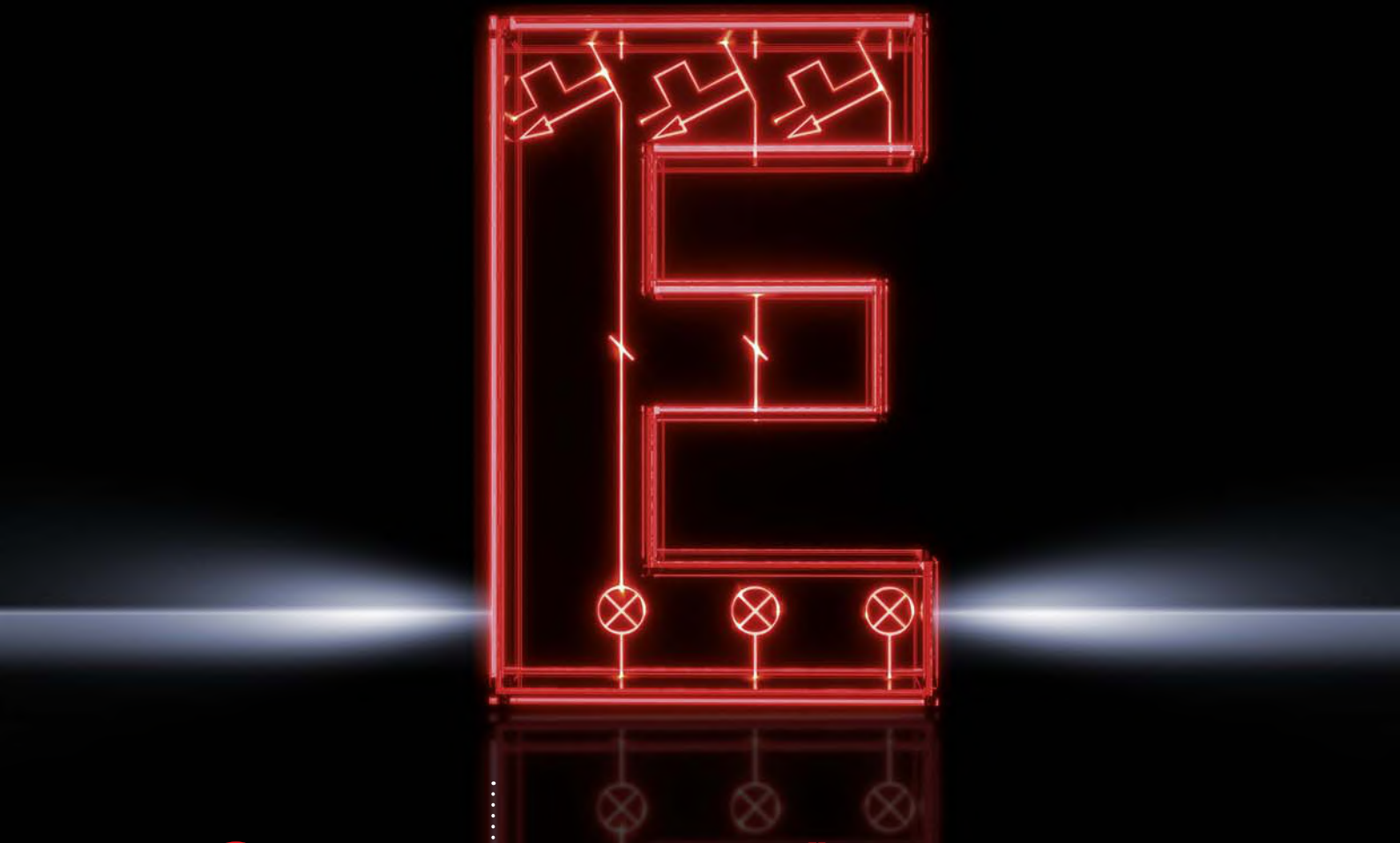
To complete the process chain, Rittal Automation Systems are involved in developing pioneering wiring solutions, right through to full automation.

Automate machining

Fully automated milling or laser machining, plus machining of busbars and cable ducts
Busbar machining, from page 638

Make component mounting more flexible

Automatic manufacturing and component mounting of terminal strips,
from page 658



EPLAN Electric P8
For project management, documentation and administration of electrical engineering automation projects

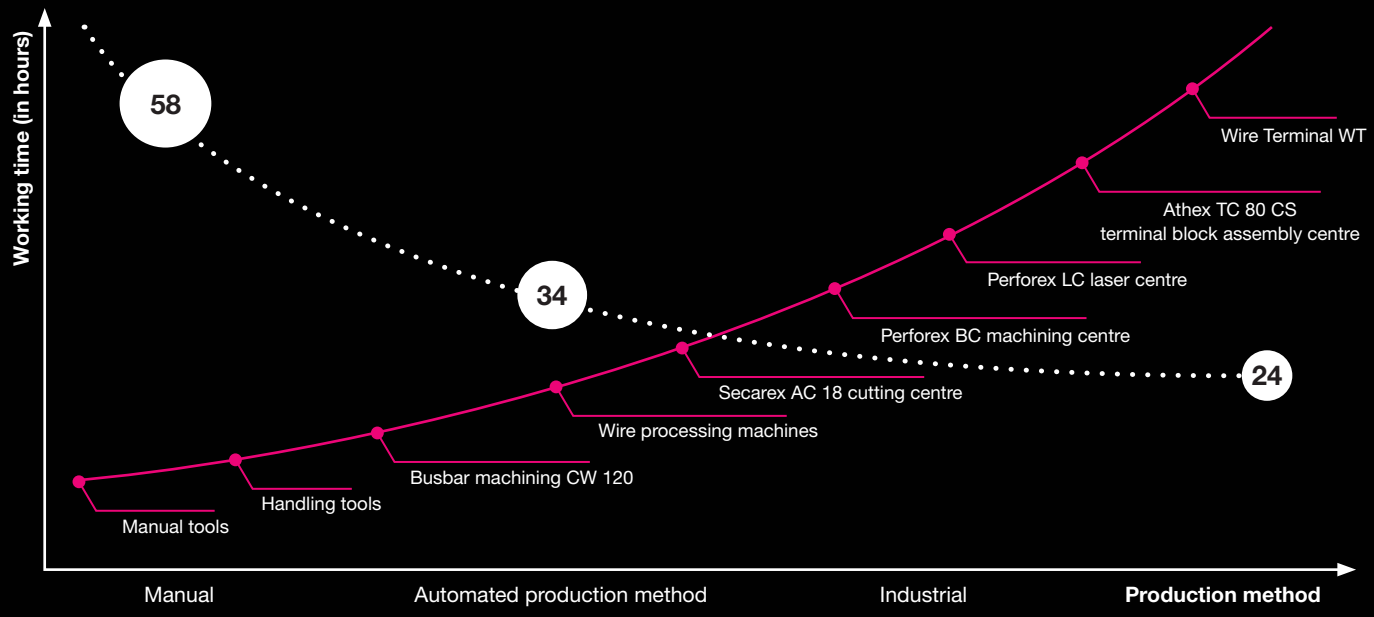
EPLAN Data Portal
Database with over 500,000 data models for electrical engineering project management

EPLAN Pro Panel
For technological project management and 3D assembly layout of enclosures

Rittal and EPLAN automate panel building

Alongside the Eplan software tools, Rittal Automation Systems provides a comprehensive range of equipment for professional workshop operation. To accelerate individual production stages, we offer a number of automation concepts which may be cost-effectively adapted to suit individual requirements and different sized companies.
Our product spectrum ranges from manual tools through to fully automated machining centres. Depending on the level of automation, you can reduce machining times, as illustrated by the following case study.

Accelerate processes by boosting the level of automation



Cutting centre Secarex AC 18

The Secarex cutting centre is convenient to use and cuts wiring ducts, cable duct covers and support rails to length quickly, precisely and reliably. The integral label printer provides project-specific labelling of the support rails and cable trunking. The cutting centre helps to improve quality, optimise cutting waste, lower costs and accelerate the overall process. Investing in a Secarex cutting centre AC 18 for cutting support rails and wiring ducts to size is cost-effective from just 200 enclosures per annum. In this example, the ROI calculation is approximately 3 years.

Mousepad support, vertically hinged

Machine operation with keyboard and label printing for project-specific allocation of blanks when using cut optimisation

Cut-to-size unit for support rails and wiring ducts

- Safe, two-handed operation for cutting wiring ducts and support rails to size at the push of a button
- Cut optimisation across multiple projects
- Automatic length end stop

- Special equipment: Optional Storage system

We reserve the right to make technical modifications.

Milling centre Perforex BC

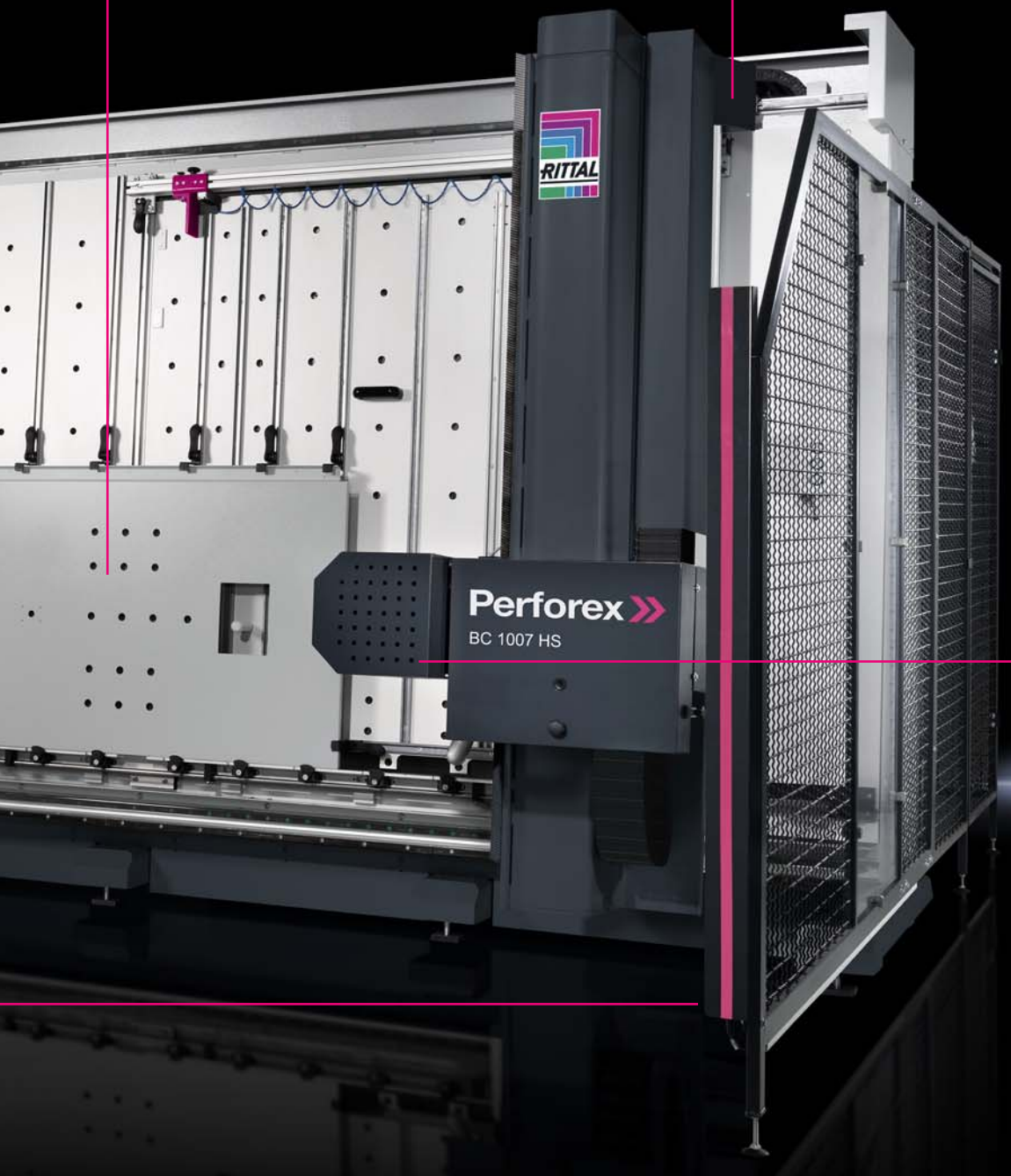
Perforex machining centres accelerate your throughput times when machining anything from the smallest enclosures and enclosure panels, right through to large enclosures.
The drilling and milling centres in the Perforex BC series allow you to machine any material, including spray-finished sheet and stainless steel as well as aluminium, copper and plastic.
The Perforex BC series is characterised by its fast, simple machining. The fully welded machine frame guarantees short throughput times with a consistently high machining quality plus fast, precise and reliable working. A short-term ROI of < 3 years can be achieved from just 150 enclosures per annum.

User-friendly shop-floor programming with central database
- Interface to EPLAN Pro Panel and all common CAD systems
- Processing of the neutral DXF format
- Transfer of configuration data from the Rittal Configuration System (RiCS)

Operational safety
- A light barrier/light array ensures operator safety and correct functioning of the machine
- The machine can be restarted directly after acknowledging the safety function

Performance package
- Faster feed rate for the milling cutter
- Rapid, user-friendly clamping of workpieces
- Dampened vibrations and noise emissions
- Extended tool life
- Shorter processing times

Installation – Maintenance – Servicing
- Short installation and training times
- Maintenance-friendly with easy access
- Global service network



Powerful high-performance spindle
- Up to 23,000 rpm
- Faster processing times
- Higher throughput
- Use of DIN tools and automatic tool checks

Integral swarf extraction in the spindle
- Extraction close to machining
- Less cleaning work
- Fast workpiece changes
- Greater productivity

We reserve the right to make technical modifications.

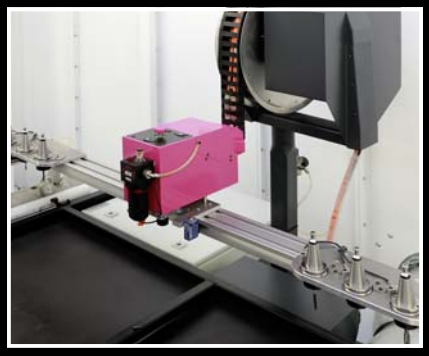
Laser centre Perforex LC

The 3D laser technology in the Perforex LC is ideally suited for machining stainless steel and sheet steel, as well as powder-coated metals such as enclosure doors, side panels etc. Spray-finished metal parts are cut without any visible paint damage or discolouration, even with delicate contours. What is more, there is no tarnishing of the cut edges when machining stainless steel. It is worth investing in a laser from around 300 enclosures per annum, ideally with a stainless steel proportion of around 30%.

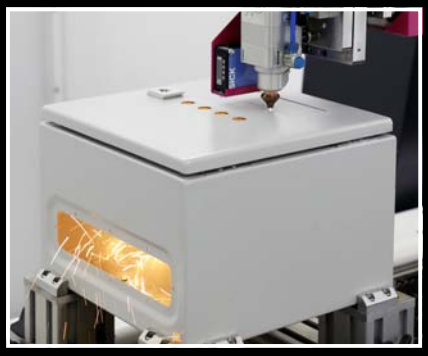
User-friendly shop-floor programming with central database

- Machine operation with 3D visualisation
- Interfaces to EPLAN Pro Panel
- Processing of the neutral DXF format
- Transfer of configuration data from the Rittal Configuration System (RiCS)

Simultaneous machining of five sides
- Less setup time
- Less strain on the operating personnel
- Machining of multiple components in a single operation



Thread tapping option for LC 3030
- Six different thread sizes in the tool magazine
- Automatic change-over of the machine head
- Greater variability in manufacturing



Contactless, low-vibration manufacturing process
- Clean, non-wearing cutting without coolant/lubricant
- Machining speed with stainless steel is several times higher than with conventional milling processes
- No rework required
- Shorter throughput times
- Greater productivity

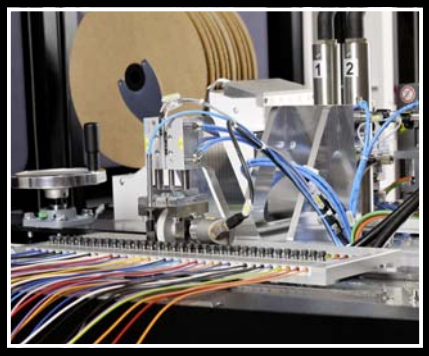
Simple attachment of enclosures without clamping
- More ergonomic
- Faster population
- Less risk of damage
- Less strain on the operating personnel

Wire Terminal WT fully automated wire processing machine

Component wiring is a time-consuming task, accounting for around 50% of the time in panel building and switchgear manufacturing. The compact Wire Terminal 24 or 36 fully automated wire processing machine ensures efficient, cost-effective wire processing. Up to 36 different wires in cross-sections ranging from 0.5 mm^2 to 2.5 mm^2 may be processed fully automatically without retooling. The optional print system prints the wires in black or white, then transfers them to downstream process stages via a controlled ordering system capable of accommodating up to 1800 processed wires.
All production data can be read and processed via suitable interfaces. Manual logging of wire lists is likewise supported.

- Integral touch display for data processing
- Label printer for wire magazine identification

Wire storage
The modular, space-saving wire store and wire routing system for the Wire Terminal. Six wire drums are stored on each of the two levels in a space-saving design. Depending on the number of wires used, the fully automatic wire processing machine may be fitted with additional wire stores (central, left, right), each with space for 12 wire containers.



24 or 36 wires
The Wire Terminal may be fitted with wire guides for 24 or 36 wires. Wires are fed in via a 24-/36-wire feed magazine which is horizontally adjustable and controlled via a servo-motor NC axis. Wires are clamped by a spring-assisted clamp which is pneumatically released during the wire feed process.

Wire labelling and processing
To ensure optimum positioning of the origin/destination on the wires, the Wire Terminal may be fitted with black, white or both marking systems. Multiple insulation stripping and crimping machines may also be integrated via an optional lift.

Selection of wire magazines
The pre-processed wires can be sequentially stored in 13 wire rails by cross-section and by other project-specific criteria.

Wire Cart
The optional Wire Cart allows assembled wires to be processed directly at the workstation on a project-specific basis. It can also accommodate tools and provide for adaptation of a monitor. The integral storage system can be used for more wires.

Smart Wiring
EPLAN Smart Wiring is ideal for efficient wire processing.

Design
- For fully automatic processing of wire lists for wire assembly
- Suitable wire stores are selected depending on the number of wires
- When using multiple crimping machines for different cross-sections, the machine may be fitted with a lift option

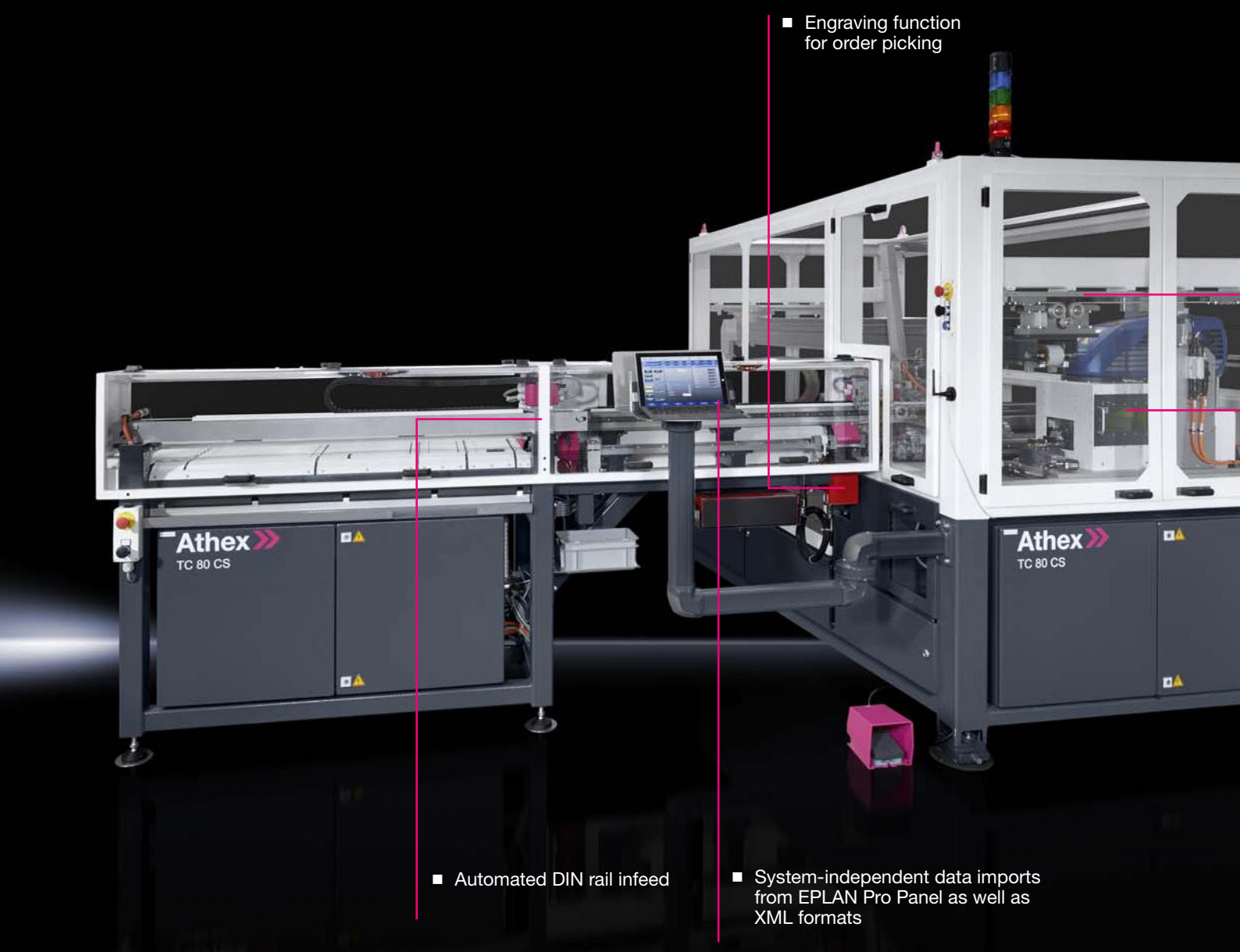
Benefits
- Processes are 8 times faster, thanks to fully automated wire processing with individual wire printing and order-picking
- Fully interlinked, from the E-CAD tool through to the production processes
- Consistently high quality
- Amortisation period of 2.5 years from a minimum of 300 enclosures per annum

Machinable material
- Fine-wire copper cables to DIN VDE 0295 Category 5

We reserve the right to make technical modifications.

Terminal block assembly centre Athex TC 80 CS

The Athex TC 80 CS terminal block assembly centre handles data from EPLAN Pro Panel or manually configured XML formats. During machining, support rails from the buffer store are measured and automatically cut to size, then marked on the underside with a needle engraver for order-picking / project-planning. In a subsequent operation, the terminals required are either fitted directly on the terminal strip with a gripper system, or optionally labelled with the laser marking system prior to positioning. The finished terminal strip is ejected from the machine via the sorting unit and can be removed. Users with a high volume of terminal blocks (> 760,000 units per annum) will achieve ROI within approximately 4 years.



Design

- Material store for support rail versions TS 35/7.5 and TS 35/15 to EN 60 715
- Automatic measurement and cutting unit
- Needle marking system for labelling the support rail undersides
- Fully automated gripper system for populating the support rails with terminal blocks
- Laser marking system for labelling the terminals and components
- Sorting and buffer stores for the finished terminal strips

Sorting unit and buffer stores for the finished terminal strips

- Upgradable with up to 80 magazine slots
- Up to 800 terminals per hour (excluding printing)
- Terminal types from all well-known manufacturers may be used

Stocking of up to 80 magazines for terminal blocks, miniature fuse-breakers etc.

Automated terminal block assembly and labelling with a laser marking system

- Labelling during assembly with a laser marking system

We reserve the right to make technical modifications.

Rittal – The System.

Faster – better – everywhere.

ENCLOSURES **POWER DISTRIBUTION** **CLIMATE CONTROL**

FRIEDHELM LOH GROUP

For information on the delivery times of your preferred Model No., please go to:
www.rittal.com

Individual configuration options:
www.rittal.com/configurators

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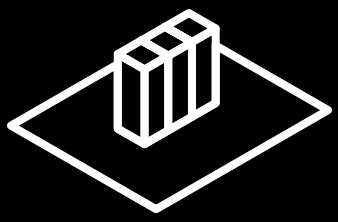
Industry 4.0 trends

Data processing close to production

More automation, more data

The digital transformation is revolutionising production. To control production in line with Industry 4.0, all components are now interlinked and communicate with one another: robots, human/machine interfaces, sensors and actuators, machines, tools and control systems. Their values are compared against their digital twin. This generates vast volumes of data.

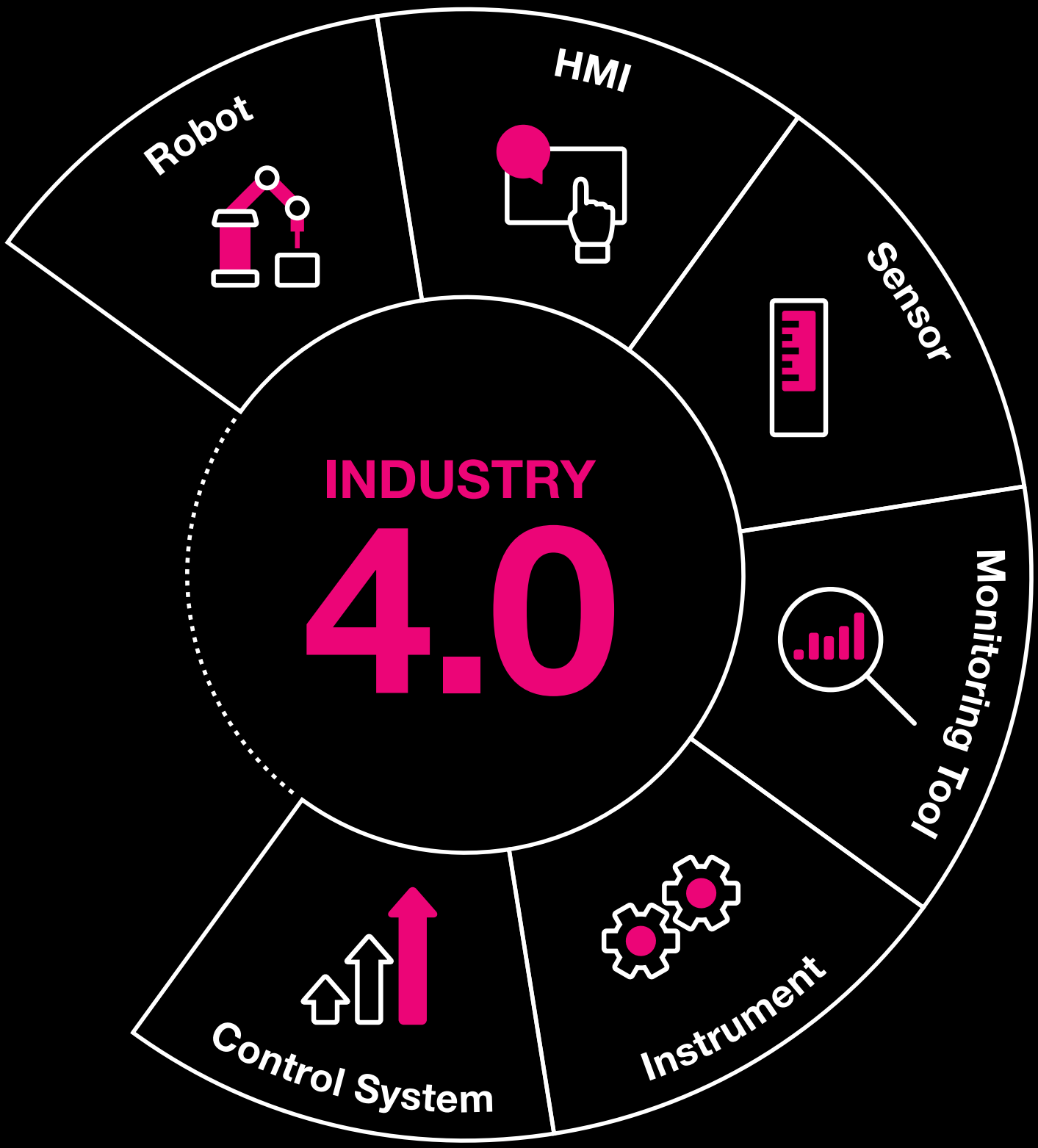


Edge data centres reduce latencies

Large volumes of data generated in the immediate production environment must be processed quickly and reliably. To this end, Rittal offers scalable edge data centres which ensure low latencies, maximum computing power and optimum security.

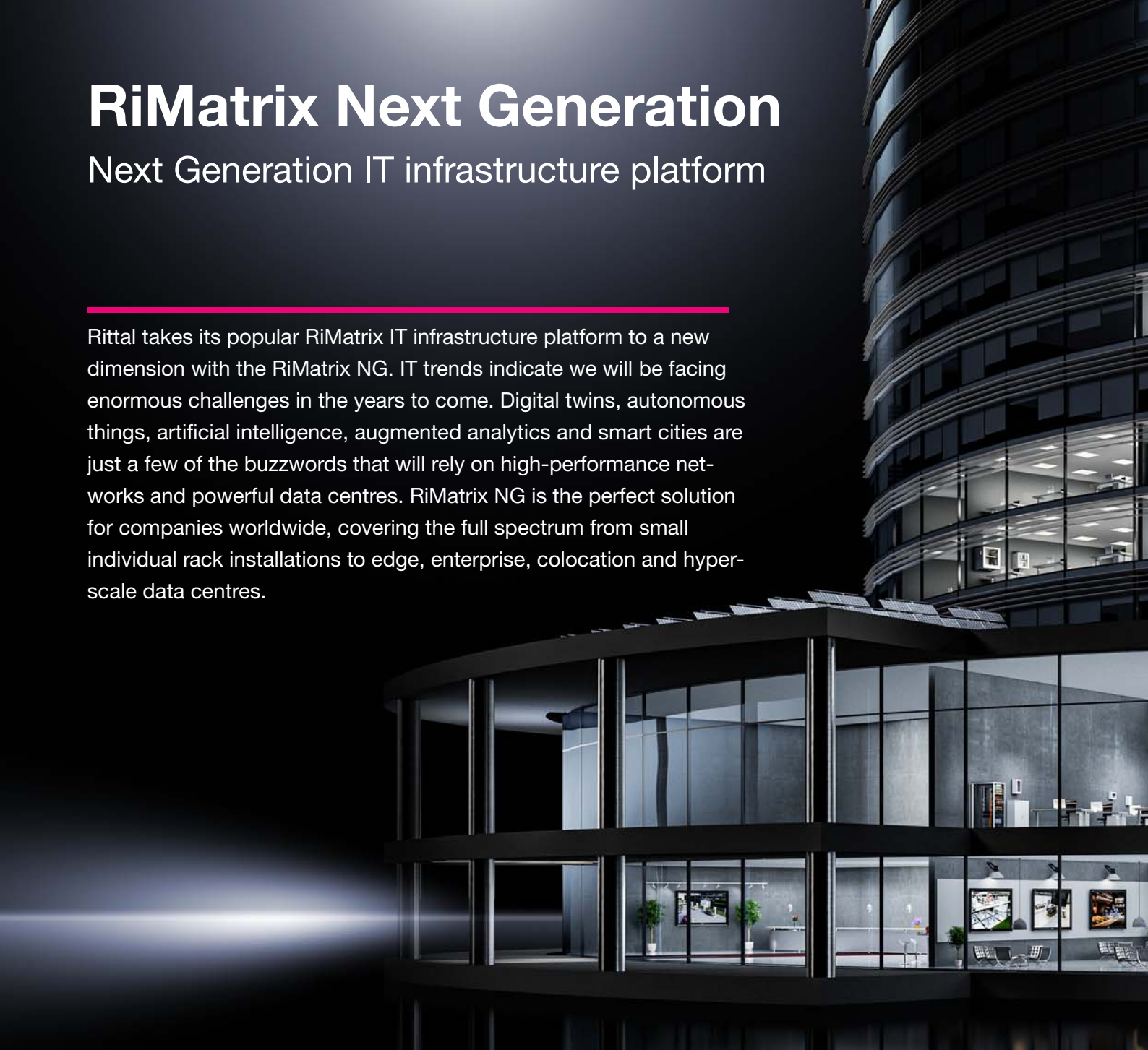
Private clouds offer security

From the individual sensor to the private cloud: invaluable, success-critical data flows need protective mechanisms to meet escalating security requirements. A combination of edge data centres and private cloud solutions allows customers to decide for themselves who may use their data and to what extent.


Robot
HMI
Sensor
Monitoring Tool
Instrument
Control System
INDUSTRY
4.0

RiMatrix Next Generation

Next Generation IT infrastructure platform



Rittal takes its popular RiMatrix IT infrastructure platform to a new dimension with the RiMatrix NG. IT trends indicate we will be facing enormous challenges in the years to come. Digital twins, autonomous things, artificial intelligence, augmented analytics and smart cities are just a few of the buzzwords that will rely on high-performance networks and powerful data centres. RiMatrix NG is the perfect solution for companies worldwide, covering the full spectrum from small individual rack installations to edge, enterprise, colocation and hyperscale data centres.

Innovative platform

- RiMatrix NG now includes a number of additional key components, such as predefined data centre modules and built-in OCP technology.
- Our ongoing R&D work keeps us up-to-date with future technology trends.
- Energy-efficient components provide the basis for implementing customised sustainability concepts.

Flexibly adaptable

- RiMatrix NG flexibly supports the IT lifecycle, from planning through to operation and optimisation.
- RiMatrix NG is freely scalable in every dimension, be it output range, installation size, availability or fail-safe operation. The open platform concept supports the addition of certified products and solutions from third-party providers.
- Variable financing models complement the portfolio and support flexible investment decisions.

Fast availability

- Predefined, tried-and-tested solutions such as edge and container data centres reduce the customer input.
- RiMatrix NG is perfectly tailored to the demands of IT components as well as superordinate management systems and applications, and supports the prompt implementation of complete solutions (XaaS).

Reliable solutions

- RiMatrix NG is synonymous with tested Rittal quality which meets international standards.
- The new platform is compatible with existing installed systems and guarantees flexible extendibility.
- Documentation and training, plus a comprehensive customer service package, round out the platform concept.

Rittal Competence Centre

Expert teams for the data centre lifecycle

Safeguard long-term efficiency and scalability
Data centres demand long-term action extending far beyond the initial setup. Everything must be modular and flexible to enable it to grow over a period of many years, while still maintaining maximum efficiency. With this in mind, the expert teams at the Rittal Competence Centre IT are happy to support your data projects throughout their entire lifecycle.

The lifecycle IT
Rittal's lifecycle IT helps you to develop state-of-the-art IT landscapes. It defines the periodic lifecycle of data centres at the following stages:

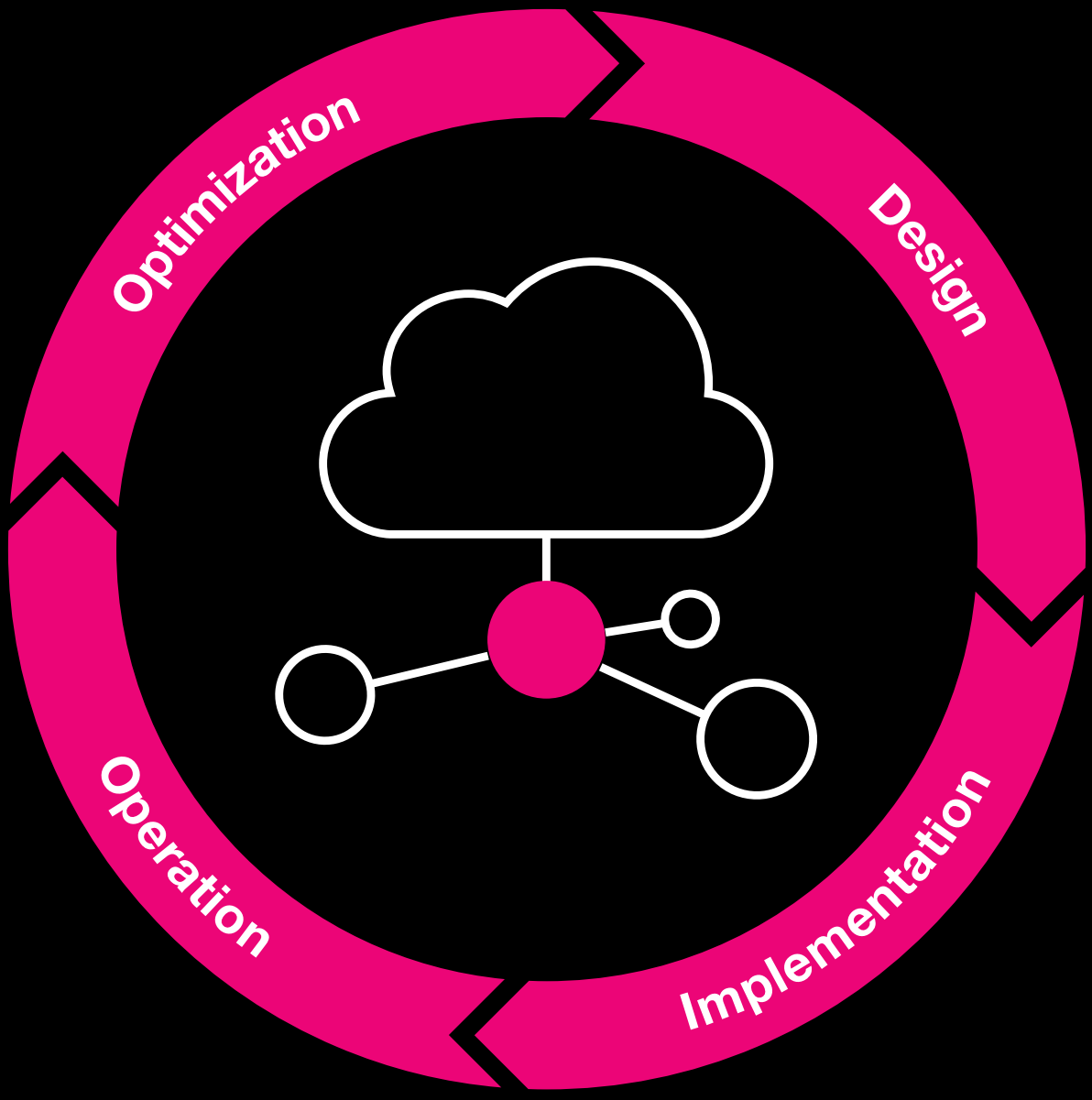
Design
Once the data centre concept has been developed, the solution modules are selected, and the investment (CAPEX) and operating costs (OPEX) are calculated.

Implementation
The physical infrastructure (electricity, cooling, monitoring, security) is assembled. This is followed by commissioning and sign-off of the data centre.

Operation
You may opt to operate the data centre yourself, or use a managed service from Innovo Cloud. You can also link into Innovo's central data centres, e.g. for backup purposes or to cushion peak loads.

Optimization
The efficiency, costs, sustainability and scalability of the installed solution are analysed. This allows us to draw conclusions about the potential for optimising your IT landscape.

Adopting an holistic view of all framework conditions and influencing factors helps to prevent data centre planning errors and develop a future-viable, resilient solution. A flexible, modular data centre architecture means you can respond flexibly to new or modified requirements to ensure that you always operate your data centre at the optimum point. This guarantees permanent savings, not just in relation to investments but also with operating costs. The expert teams at the Rittal IT competence centres have extensive expertise from many years spent working on countless international IT projects. Our specialists will support you with all issues relating to concept development and detailed planning of data centres, calculation of TCO, security aspects, and monitoring and maintenance planning.



Edge data centres

On-site data management

Production to Industry 4.0 generates huge volumes of data which must be processed and transported extremely rapidly, securely and seamlessly, for example for interaction between machines. This may prove too much for cloud-based solutions. Edge data centres, on the other hand, allow data to be processed in the immediate environment of the production process (i.e. at the edge of the cloud). This helps to boost the level of automation in production directly on site.

Minimal latency

- Autonomous systems such as vehicles and machines must be able to respond quickly to data generated in real time.
- High-performing data networks such as optical fibre connections, as well as 5G connections and edge data centres, are the key technologies in this regard.

System security

- Data privacy is vital and poses a challenge, particularly in distributed systems such as IIoT applications.
- Not only is it necessary to protect personal data, but also product and process data. Digital twin is the buzzword here, because a product's data is just as important as the product itself.

Local data processing

- Smart machines, autonomous systems and robots generate such huge volumes of data that it would be inappropriate to transmit them directly to a core or cloud data centre.
- Within the context of Industry 4.0 applications, as well as in smart cities, edge data centres are indispensable for bringing applications to the point of data generation.

High availability

- The availability of an edge data centre reflects the availability of the application.
- Redundant supply paths, backed-up power supplies and cooling, together with finely-tuned workflows and failover scenarios help to ensure the availability of a solution.

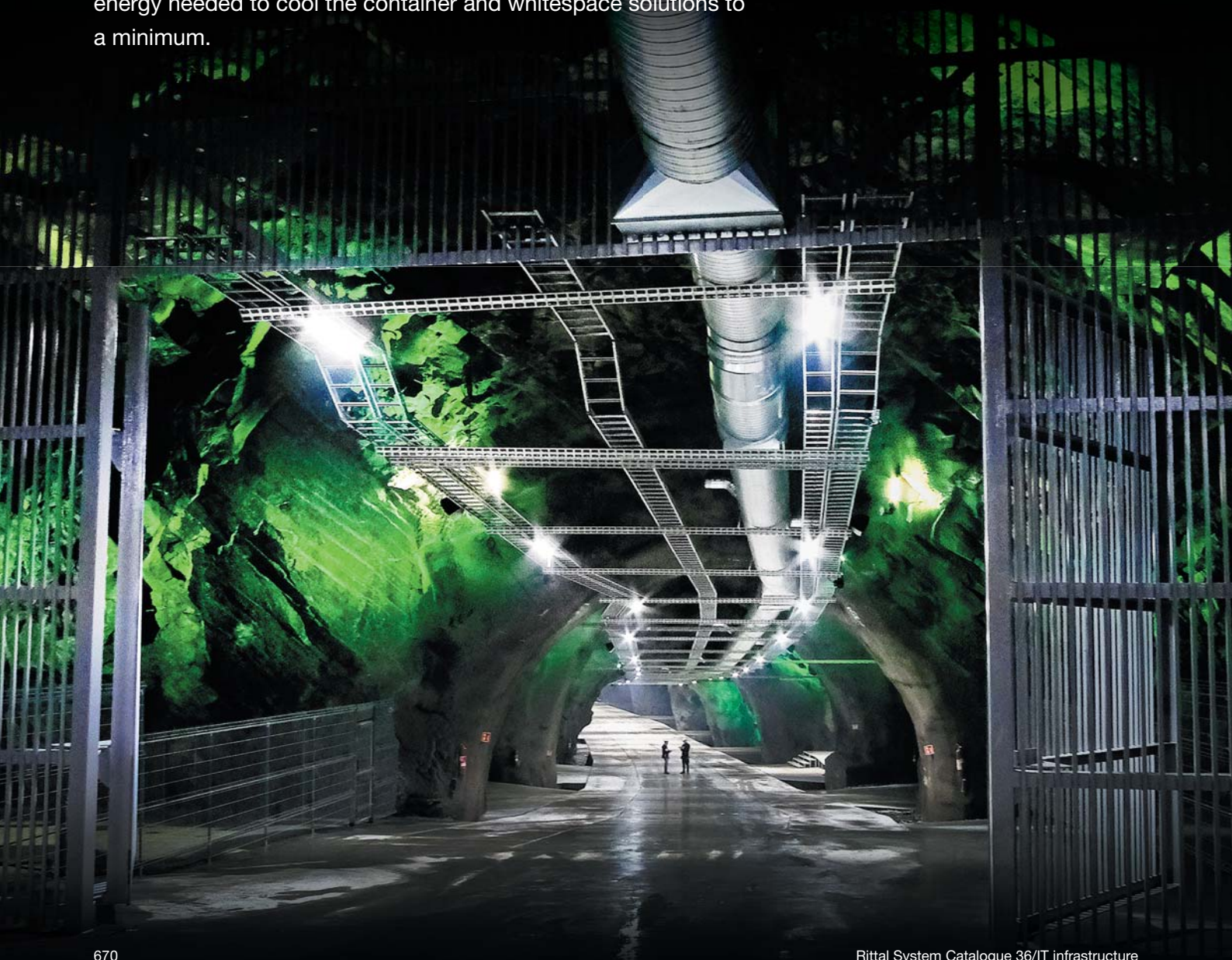
Dynamically scalable systems

- Edge applications are tailored to the customer's requirements. This calls for a high level of flexibility in infrastructure components (IT and OT) as well as in applications.
- For this reason, edge data centres need to be scalable and, in conjunction with the applications, capable of aligning with requirements. Predefined data centre modules that nevertheless offer a high degree of flexibility provide the basis for distributed data centre topologies.

IT infrastructure solutions

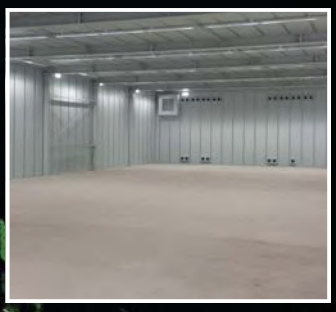
Green, reliable and efficient – an example

One of the world's largest data centres is housed in a decommissioned mine at the Lefdal Mine Datacenter (LMD) on the west coast of Norway. The five-storey tunnel system with 75 chambers provides 120,000 square metres of space with a potential total capacity of up to 200 MW. It is one of the most cost-effective, secure, flexible and eco-friendly data centre solutions in Europe. It is powered solely by electricity from renewable sources such as hydropower plants and solar farms, and uses water from the nearby fjord for cooling.
The primary circuit is connected to the 565 metre deep fjord, which guarantees unlimited supplies of cold water. Water/water heat exchangers supply the secondary circuit in the mine, keeping the energy needed to cool the container and whitespace solutions to a minimum.



LMD uses IT containers from the Rittal container platform, such as server containers with an output of up to 300 kW. Standardised interfaces for power supply, water connections and the network allows equipment to be incorporated rapidly into the heavy-duty shelving system, where up to three containers may be stacked on top of one another in a tunnel. The container platform is scalable in terms of both output and redundancy, and customer requests are flexibly accommodated.

The tunnels at LMD are also perfectly suited to whitespace solutions. The Rittal security room GSR is used to protect valuable IT components from the harsh mine environment. Infrastructure modules from the aforementioned container solutions are installed here. Individual planning of these areas is supported, making LMD freely scalable in every dimension.



When the Total Cost of Ownership (TCO) is taken into account, LMD is 40 percent cheaper than other data centres in Europe. This is due not only to the attractive electricity price and the use of sea water cooling from the fjord, but also to the outstanding partial PUE (efficiency) of the standardised data centre modules across the full breadth of applications, from memory-intensive storage/backup solutions through to high-performance computing (HPC).

Of course, a comprehensive security concept is also included in the range of services. In this regard, the mine system offers inestimable benefits: the facility is only accessible via well-protected entry points. The rock formation provides natural protection from electromagnetic pulses. Specially trained security staff patrol the entire installation around the clock, 365 days a year. A three-stage authentication process and smart camera systems provide additional security. The installation is certified to Uptime Tier III design and represents one of the most secure data centre solutions in the Nordic market.

Rittal – The System.

Faster – better – everywhere.

IT rack system/racks

Network/server racks VX IT

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With vented doors, with 482.6 mm (19″) mounting angles, standard 686
With vented doors, with 482.6 mm (19″) mounting angles, dynamic 689
With vented doors, pre-configured, with 482.6 mm (19″) mounting angles, standard 691
With glazed door, with 482.6 mm (19″) mounting angles, standard 692
With glazed door, with 482.6 mm (19″) mounting angles, dynamic 695
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With glazed door, pre-configured, with 482.6 mm (19″) mounting angles, standard 697
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Cable management racks

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Network racks TE 8000

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Pre-assembled 706
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Distributor racks

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IT racks

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Wall-mounted enclosure EL, 3-part, pre-configured, with mounting angles 715
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Wall-mounted enclosure EL, 3-part, with mounting plate and mounting angles 717
Wall-mounted enclosure AX IT with 482.6 mm (19″) mounting angles 719
Small fibre-optic distributor with mounting plate and splicing cassette accommodation 720

Your benefits

Network/server racks

- For individual use as stand-alone installations and data centres
- Complete system solutions for small to large networks
- Maximum configuration versatility and protection for installed equipment
- Simple conversions and use of our extensive modular system ensures flexibility and safeguards your investment

Wall-mounted enclosures

- A comprehensive choice of products – the right enclosure for every application – up to protection category IP 66
- Wide range of sizes available from 3 U to 21 U
- Extensive selection of accessories with "Rittal – The System."
- Fast assembly, modification and simple installation based on the modular principle

Sample applications

1 Wall-mounted enclosure EL, see page 715

2 VerticalBox, see page 712

3 Wall-mounted enclosure AX IT with 482.6 mm (19″) mounting angles, see page 719

4 VX IT with glazed door for rack climate control, see page 692, base/plinth and installation accessories, see page 880

5 VX IT with vented door for room cooling, see page 686, bayed with base/plinth and installation accessories, see page 878

6 Small fibre-optic distributor, see page 720

VX IT

The solution for all network and server applications

Whether you need a network rack to house a corridor distributor, or server racks for an edge, cloud or hyperscale data centre, the new VX IT provides the ideal platform and meets all the requirements of a modern IT infrastructure.

Consistent customer focus
The new VX IT is based on a modular concept with a customer-friendly configurator to guide you quickly and easily to a solution that is tailored to your individual requirements. A state-of-the-art production line and optimised logistics ensure fast availability and on-time delivery.

Matching modules
The new VX IT provides the basis for RiMatrix Next Generation, the latest generation to have evolved from our extremely popular Rittal IT system, now with numerous new features and innovative products.

Seamless compatibility
A data centre infrastructure will outlive its individual servers. Compatibility with established RiMatrix systems is therefore crucial. The VX IT and RiMatrix NG are therefore ideal for extending existing data centres and replacing individual components.

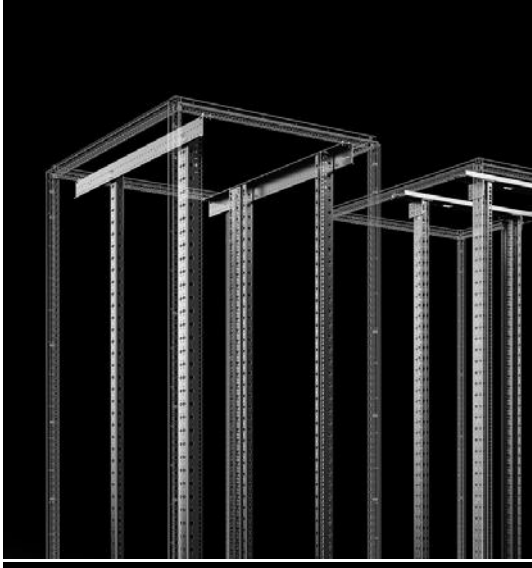
Future-proof
We stay abreast of the latest trends and understand what drives experts and companies, enabling us to deliver forward-looking solutions. The VX IT, like the RiMatrix NG, are continuously being refined to keep pace with the challenges of an evolving IT infrastructure.

Comprehensive modular system

For all requirements

Versatility for every application

- Even the standard variants are available in up to 28 sizes (EU series) – 2 widths, 6 heights and 4 depths.
- Select your individual 482.6 mm (19″) installation to meet your specific requirements from a comprehensive range of racks, components and accessories plus two different load classes (dynamic or standard, as per the detailed rack specifications) and your chosen 482.6 mm (19″) interior installation variant, with maximum load limits of 15,000 N or 18,000 N.



Tailored door concept

The choice of door depends on the spatial conditions and your individual requirements with regard to access, climate control and protection category.

- The new 180° hinge ensures a maximum door opening angle even when bayed plus a large-scale handle system including security lock with profile half-cylinder.
- There is a door to suit every climate control system, be it rack, suite or room cooling.
- New options include an automatic door opener to provide emergency cooling or to ensure rack extinguishing with a gas-based room extinguisher system.
- Glazed doors are available for an optimum view or to ensure a closed climate control zone in conjunction with high-performance cooling applications, such as high-capacity heat exchangers.

Roof concept with the required protection category

The choice of roof solution will depend on your planned cable entry and prescribed protection category, for example:

- One-piece, solid, with a protection category of up to IP 55
- With brush strip on both sides across the entire enclosure depth
- Cable entry via brush strip horizontally at the rear, across the entire enclosure width
- Cable entry in the corner zones via brush strips

User-friendly side panel solutions

Your choice of side panel will depend on the required level of access and the prescribed security and protection category parameters, for example:

- For individual enclosures: Optionally one-piece, multi-piece, horizontally divided, plug-in or vertically divided, hinged
- To finish off an enclosure suite: Multi-piece, screw-fastened or partitions, one-piece, slide-in fixing for physical separation of individual enclosures within an enclosure suite

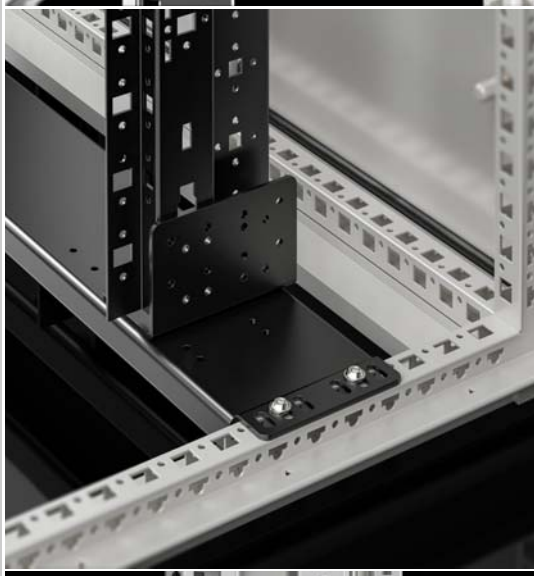
High load capacity

With maximum flexibility

Flexible 482.6 mm (19″) installation

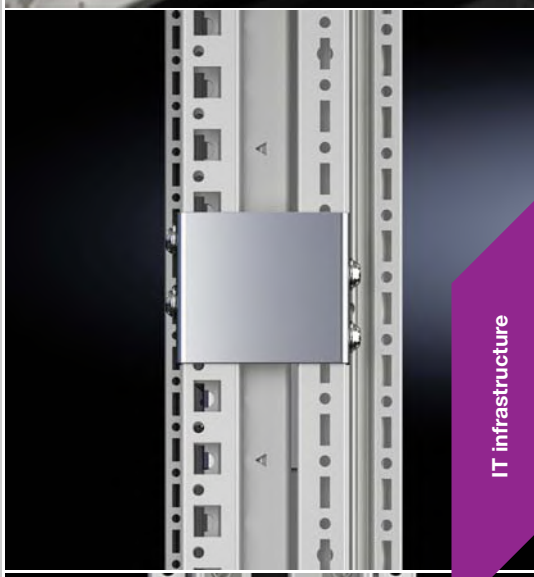
Choose from two 482.6 mm (19″) installation systems to suit your requirements:

- Standard – Load capacity up to a maximum of 15,000 N or 12,000 N to UL 2416
- Dynamic – Load capacity up to a maximum of 18,000 N or 15,000 N to UL 2416
- Different installation concepts are available for the 482.6 mm (19″) mounting angles, depending on the enclosure dimensions. While 600 mm wide racks are mounted directly onto the enclosure frame, in 800 mm wide racks the 482.6 mm (19″) levels are mounted on depth stays or cross-members. In this way, alternative mounting dimensions of 21″, 23″ and 24″ are readily accommodated in the enclosure width 800 mm, as are asymmetrical arrangements of the 482.6 mm (19″) mounting level. The standard installation variant with cross-members is used with rack depths of up to 800 mm and is ideally suited for use as a network distributor by supporting fast, simple cable management across the entire enclosure width in any height unit.
- An asymmetrical arrangement of the 482.6 mm (19″) level gains additional installation space on one side which may be used for optimised cable routing or to integrate a Liquid Cooling Unit (LCU).



Easily extend your existing systems

- The VX IT is also compatible with all existing IT infrastructure solutions assembled with the TS IT and DK TS systems – in other words, further configuration and baying are easily achieved with the VX IT.
- The new baying variant with 3 mm baying gap means that entire racks or liquid cooling packages are easily extracted from the enclosure suite and replaced with updated hardware.



Converting to VX IT couldn't be simpler

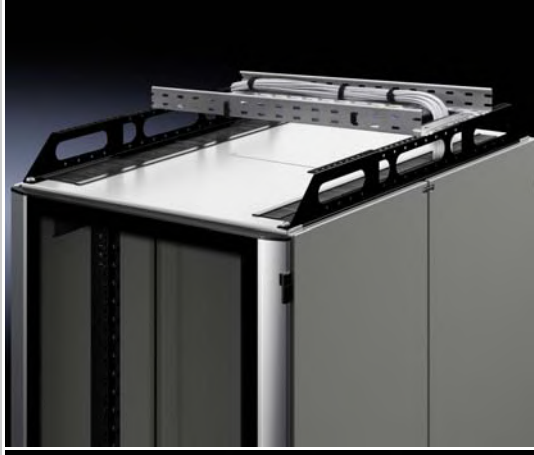
- Our smart conversion assistant, available on the Rittal website, allows you to easily convert your existing enclosure systems to the new VX IT system.

Security and ease of use

Customised at all levels

Roof

- A broad spectrum of individual roof solutions
- Ideal solutions for secure, simple cable entry, even with high cable volumes
- Closed variants for a high protection category of IP 55



Walls

- Divided side panels for problem-free one-man assembly
- Vertically divided, hinged side panels for easy access without dismantling the side panel
- Side panels latched from the inside for superior access protection

Doors

- Vented or solid, to suit the individual climate control concept
- Mechanical and electronic lock systems for optimum security
- Door control systems to automatically open the doors in the event of a cooling failure or for room-based extinguisher systems

Base

- Individual base modules for optimum, secure cable entry from below
- Base/plinth systems with integral cable management solutions

Room integration

- Perfectly adapted modules for achieving cold or hot aisle solutions

Interior installation

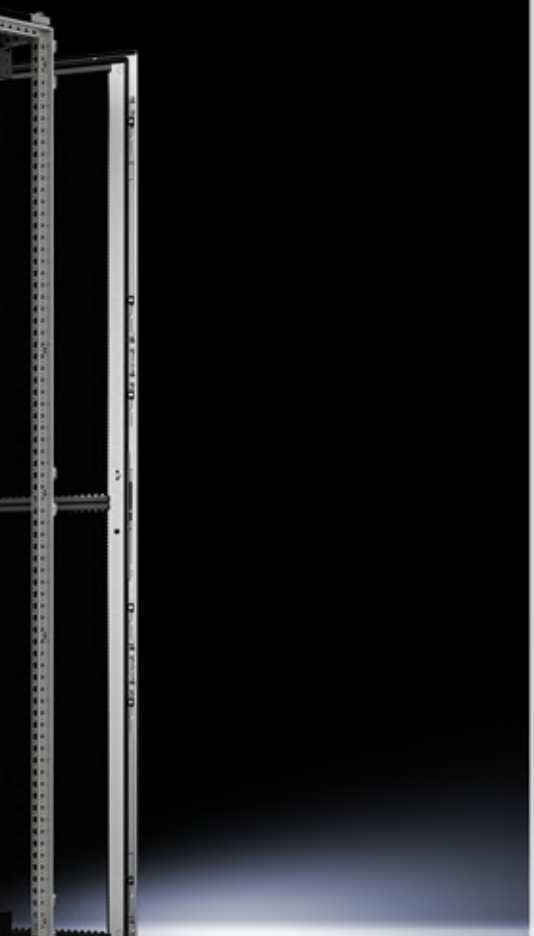
With unlimited diversity

Power

- Wide range of socket strips and power distribution systems
- Power distribution unit in the zero-U space
- Professional monitoring and link to DCIM software (such as RiZone)
- Measurement of power, current, active and apparent power and power factor

Cooling

- Individual climate control concepts for rack, suite and room cooling up to 53 kW per rack
- Energy-efficient systems help to minimise operating costs



Monitoring

- CMC III enables preventive intervention to reduce the risk of downtime
- Mechanical and electronic lock systems for optimum security

Security

- Fire alarm and extinguisher systems for early fire detection and automatic extinguishing
- Door control systems to automatically open the doors in the event of a cooling failure and for room-based extinguisher systems

Interior installation

- Practical vertical and horizontal air routing inside the rack, even with a high density of ports
- Component shelves, for static or withdrawable installation
- Air blocking systems for optimum air routing inside the rack, adapted to the individual climate control concept

Network/server racks VX IT

Door variant, front		Vented door	Vented door	Vented door	
482.6 mm (19") configuration		**standard**	**dynamic**	**standard**	
Material thickness 482.6 mm (19") configuration variant, mm		2.0	2.5	2.0	
Load capacity, static N max., depending on size variant		15000	18000	15000	
Load capacity, static N max., to UL 2416, depending on size variant		12000	15000	12000	
Load capacity, dynamic N max., transport using castors, depending on size variant		10000	10000	10000	
Protection category to IEC 60 529		–	–	–	
Variants		53XX.11X	53XX.81X	53XX.166	
Product-specific scope of supply					
Base	Open	■	■	–	
	Multi-piece, solid	–	–	–	
Rear door	One-piece, solid, 130° hinges	–	–	–	
	Vertically divided, from H ≥ 1800 mm, solid, 180° hinges	–	–	–	
	One-piece, vented, 130° hinges	■	■	–	
	Vertically divided, from H ≥ 1800 mm, vented, 180° hinges	■	■	■	
	Rear panel, screw-fastened	–	–	–	
Roof	With cable entry	■	■	■	
	Solid	–	–	–	
Pre-configured					
Base/plinth	VX base/plinth, vented	–	–	■	
Base	Solid front, one base module as infill panel	–	–	■	
Walls	One-piece, screw-fastened	–	–	■	
Page		686	689	691	

	Glazed door	Glazed door	Glazed door	Glazed door	Glazed door	Glazed door
	standard	**dynamic**	**standard**	**standard**	**swing frame**	**without interior installation**
	2.0	2.5	2.0	2.0	2.0	–
	15000	18000	15000	15000	3500	–
	12000	15000	12000	12000	3500	–
	10000	10000	10000	10000	3500	–
	–	–	IP 55	–	–	IP 55
	53XX.12X	53XX.82X	53XX.13X	53XX.15X	53XX.157	53XX.190
	■	■	–	–	–	–
	–	–	■	–	–	■
	■	■	■	■	–	■
	■	■	–	■	–	–
	–	–	–	–	–	–
	–	–	–	–	–	–
	–	–	–	–	■	–
	■	■	–	■	■	–
	–	–	■	–	–	■
	–	–	–	■	■	–
	–	–	–	■	■	–
	–	–	–	■	■	–
	692	695	696	697	698	699

Network/server racks VX IT

IT power Page 723 **IT cooling** Page 757 **IT monitoring** Page 799 **System accessories** Page 877

Material:
- Sheet steel
- Aluminium

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation, vent grille at the front: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges
- Sheet steel rear door, vented (vented surface area approx. 85% perforated)
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Spacers, height 50 mm, to raise the cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with vented doors, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	24	24	42	42	42	Page
Width mm		800	800	600	600	600	
Height mm		1200	1200	2000	2000	2000	
Depth mm		800	1000	600	800	1000	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front	front and rear	front and rear	
482.6 mm (19") attachment		on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	
Max. load capacity (static) per enclosure N		8000	15000	7500	15000	15000	
Max. load capacity (static) per enclosure to UL 2416 N		8000	12000	6000	12000	12000	
Distance between prefitted 482.6 mm (19") levels mm		520	720	–	520	720	
Free mounting space to the 482.6 mm (19") level, front/rear mm		150 / 130	87 / 193	87 / 435	87 / 193	87 / 193	
Model No.	1 pc(s).	**5303.114**	**5304.116**	**5329.111**	**5330.113**	**5308.113**	
Product-specific scope of supply, roof plate							
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	■	■	–	–	–	
Roof plate, multi-piece, removable, for horizontal cable entry at the rear and with covered cut-out for fan mounting plate	1 pc(s).	–	–	■	–	–	
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	–	–	–	■	■	
Product-specific scope of supply, door							
Sheet steel door, vented, one-piece, 130° hinges	1 pc(s).	■	■	–	–	–	
Sheet steel rear door, vented, vertically divided, 180° hinges	1 pc(s).	–	–	■	■	■	
Accessories							
Side panel, screw-fastened, sheet steel	2 pc(s).	8175.245	8176.245	8106.245	8108.245	8100.245	901
Side panel, horizontally divided	1 pc(s).	–	–	–	–	5301.250	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.337	5301.344	–	–	5301.338	897

with vented doors, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	42	42	42	42	47	Page
Width mm		600	800	800	800	600	
Height mm		2000	2000	2000	2000	2200	
Depth mm		1200	800	1000	1200	800	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	screw-fastened onto depth stays, top and bottom, and to the support rail on the frame structure	with mounting bracket screw-fastened to the frame at the top and bottom	
Max. load capacity (static) per enclosure N		15000	8000	15000	15000	15000	
Max. load capacity (static) per enclosure to UL 2416 N		12000	8000	12000	12000	12000	
Distance between prefitted 482.6 mm (19") levels mm		720	520	720	720	520	
Free mounting space to the 482.6 mm (19") level, front/rear mm		150 / 330	150 / 130	87 / 193	150 / 330	87 / 193	
Model No.	1 pc(s).	**5310.118**	**5307.114**	**5309.116**	**5311.116**	**5331.113**	
Product-specific scope of supply, roof plate							
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	–	–	–	■	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	■	■	■	–	
Product-specific scope of supply, door							
Sheet steel rear door, vented, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Accessories							
Side panel, screw-fastened, sheet steel	2 pc(s).	8102.245	8108.245	8100.245	8102.245	8128.245	901
Side panel, horizontally divided	1 pc(s).	5301.254	–	5301.250	5301.254	–	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.341	5301.337	5301.344	5301.347	–	897

Network/server racks VX IT

with vented doors, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	47	47	47	47	47	Page
Width mm		600	600	800	800	800	
Height mm		2200	2200	2200	2200	2200	
Depth mm		1000	1200	800	1000	1200	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	screw-fastened onto depth stays, top and bottom, and to the support rail on the frame structure	
Max. load capacity (static) per enclosure N		15000	15000	8000	15000	15000	
Max. load capacity (static) per enclosure to UL 2416 N		12000	12000	8000	12000	12000	
Distance between prefitted 482.6 mm (19") levels mm		720	720	520	720	720	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 193	150 / 330	150 / 130	87 / 193	150 / 330	
Model No.	1 pc(s).	**5313.113**	**5315.118**	**5312.114**	**5314.116**	**5316.116**	
Product-specific scope of supply, roof plate							
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	■	–	–	–	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	–	■	■	■	
Product-specific scope of supply, door							
Sheet steel rear door, vented, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	■	
Accessories							
Side panel, screw-fastened, sheet steel	2 pc(s).	8120.245	8122.245	8128.245	8120.245	8122.245	901
Side panel, horizontally divided	1 pc(s).	5301.257	5301.261	–	5301.257	5301.261	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.338	5301.341	5301.337	5301.344	5301.347	897

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Material:
- Sheet steel
- Aluminium

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation, vent grille at the front: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges
- Sheet steel rear door, vented (vented surface area approx. 85% perforated), vertically divided, 180° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Spacers, height 50 mm, to raise the cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with vented doors, with 482.6 mm (19") mounting angles, dynamic

Units U	Packs of	42	42	42	42	Page
Width mm		600	600	800	800	
Height mm		2000	2000	2000	2000	
Depth mm		1000	1200	1000	1200	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and on depth stays at the bottom	on depth stays, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		18000	18000	18000	18000	
Max. load capacity (static) per enclosure to UL 2416 N		15000	15000	15000	15000	
Distance between prefitted 482.6 mm (19") levels mm		700	725	700	725	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 213	150 / 325	87 / 213	150 / 325	
Model No.	1 pc(s).	**5308.813**	**5310.818**	**5309.816**	**5311.816**	
Note on Model No.		–	–	–	–	
Product-specific scope of supply, roof plate						
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	■	–	–	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	–	■	■	
Accessories						
Side panel, screw-fastened, sheet steel	2 pc(s).	8100.245	8102.245	8100.245	8102.245	901
Side panel, horizontally divided	1 pc(s).	5301.250	5301.254	5301.250	5301.254	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.338	5301.341	5301.344	5301.347	897

Network/server racks VX IT

with vented doors, with 482.6 mm (19") mounting angles, dynamic

Units U	Packs of	47	47	47	47	Page
Width mm		600	600	800	800	
Height mm		2200	2200	2200	2200	
Depth mm		1000	1200	1000	1200	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and on depth stays at the bottom	on depth stays, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		18000	18000	18000	18000	
Max. load capacity (static) per enclosure to UL 2416 N		15000	15000	15000	15000	
Distance between prefitted 482.6 mm (19") levels mm		700	725	700	725	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 213	150 / 325	87 / 213	150 / 325	
Model No.	1 pc(s).	**5313.813**	**5315.818**	**5314.816**	**5316.816**	
Note on Model No.		–	–	–	–	
Product-specific scope of supply, roof plate						
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	■	–	–	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	–	■	■	
Accessories						
Side panel, screw-fastened, sheet steel	2 pc(s).	8120.245	8122.245	8120.245	8122.245	901
Side panel, horizontally divided	1 pc(s).	5301.257	5301.261	5301.257	5301.261	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.338	5301.341	5301.344	5301.347	897

with vented doors, with 482.6 mm (19") mounting angles, dynamic

Units U	Packs of	52	52	52	52	Page
Width mm		600	600	800	800	
Height mm		2450	2450	2450	2450	
Depth mm		1000	1200	1000	1200	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and on depth stays at the bottom	on depth stays, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		18000	18000	18000	18000	
Max. load capacity (static) per enclosure to UL 2416 N		15000	15000	15000	15000	
Distance between prefitted 482.6 mm (19") levels mm		700	725	700	725	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 213	150 / 325	87 / 213	150 / 325	
Model No.	1 pc(s).	**5334.813**	**5332.818**	**5335.816**	**5333.816**	
Note on Model No.		Minimum order quantity = 10 pc(s).	Minimum order quantity = 10 pc(s).	Minimum order quantity = 10 pc(s).	Minimum order quantity = 10 pc(s).	
Product-specific scope of supply, roof plate						
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	■	–	–	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	–	■	■	
Accessories						
Side panel, screw-fastened, sheet steel		–	–	–	–	
Side panel, horizontally divided	1 pc(s).	5301.264	5301.265	5301.264	5301.265	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.338	5301.341	5301.344	5301.347	897

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Material:
- Sheet steel
- Aluminium
- Plastic

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation, vent grille at the front, base/plinth: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Aluminium/sheet steel door at the front, vented (vented surface area approx. 85% perforated), 180° hinges
- Sheet steel rear door, vented (vented surface area approx. 85% perforated), vertically divided, 180° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- 482.6 mm (19") mounting angle, standard, variably screw-fastened to depth stays at the top and bottom
- Side panels, one-piece, for screw fastening
- Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate
- Base module mounted at front as infill panel
- Base/plinth system VX, 100 mm, vented
- Base/plinth corner pieces and trim panels, sides, screw-fastened
- Base/plinth trim panels, front and rear plus corner and baying covers supplied loose
- 4 levelling feet, M12, including base/plinth adaptor (supplied loose)
- Spacers, height 50 mm, to raise the cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- 4 combination rails for inner and outer mounting level, to fit rack depth (supplied loose)
- 10 cable shunting rings, metal, 125 x 65 mm (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with vented doors, pre-configured, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	42	Page
Width mm		800	
Height mm		2000	
Height including base/plinth mm		2100	
Depth mm		1000	
Max. load capacity (static) per enclosure N		15000	
Max. load capacity (static) per enclosure to UL 2416 N		12000	
Distance between prefitted 482.6 mm (19") levels mm		720	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 193	
Model No.	1 pc(s).	**5309.166**	
Accessories			
Fan mounting plate	1 pc(s).	5502.020	790
Cable route	1 pc(s).	5302.120	1066

Network/server racks VX IT

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Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Spacers, height 50 mm, to raise the cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with glazed door, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	15	24	24	24	38	Page
Width mm		600	600	800	800	600	
Height mm		800	1200	1200	1200	1800	
Depth mm		600	600	800	1000	600	
Mounting position of the 482.6 mm (19") level(s)		front	front	front and rear	front and rear	front	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	
Max. load capacity (static) per enclosure N		7500	7500	8000	15000	7500	
Max. load capacity (static) per enclosure to UL 2416 N		6000	6000	8000	12000	6000	
Distance between prefitted 482.6 mm (19") levels mm		–	–	520	720	–	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 435	87 / 435	150 / 130	87 / 193	87 / 435	
Model No.	1 pc(s).	**5325.121**	**5326.121**	**5303.124**	**5304.126**	**5327.121**	
Product-specific scope of supply, roof plate							
Roof plate, multi-piece, with horizontal cable entry at the rear and prepared for fan mounting plate	1 pc(s).	■	■	–	–	■	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	–	■	■	–	
Product-specific scope of supply, door							
Sheet steel rear door, solid, one-piece, 130° hinges	1 pc(s).	■	■	■	■	–	
Sheet steel rear door, solid, vertically divided, 180° hinges	1 pc(s).	–	–	–	–	■	
Accessories							
Side panel, screw-fastened, sheet steel	2 pc(s).	8173.245	8170.245	8175.245	8176.245	8186.245	901
Side panel, horizontally divided		–	–	–	–	–	
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	–	–	5301.337	5301.344	–	897

with glazed door, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	38	38	42	42	Page
Width mm		600	800	600	600	
Height mm		1800	1800	2000	2000	
Depth mm		800	800	600	800	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	
Max. load capacity (static) per enclosure N		15000	8000	7500	15000	
Max. load capacity (static) per enclosure to UL 2416 N		12000	8000	6000	12000	
Distance between prefitted 482.6 mm (19") levels mm		520	520	–	520	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 193	150 / 130	87 / 435	87 / 193	
Model No.	1 pc(s).	**5328.123**	**5305.124**	**5329.121**	**5330.123**	
Product-specific scope of supply, roof plate						
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	–	–	■	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	■	–	–	
Roof plate, multi-piece, with horizontal cable entry at the rear and prepared for fan mounting plate	1 pc(s).	–	–	■	–	
Product-specific scope of supply, door						
Sheet steel rear door, solid, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Accessories						
Side panel, screw-fastened, sheet steel	2 pc(s).	8188.245	8188.245	8106.245	8108.245	901
Side panel, horizontally divided		–	–	–	–	
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	–	5301.337	–	–	897

with glazed door, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	42	42	42	42	Page
Width mm		600	600	800	800	
Height mm		2000	2000	2000	2000	
Depth mm		1000	1200	600	800	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	on the cross-member, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		15000	15000	4000	8000	
Max. load capacity (static) per enclosure to UL 2416 N		12000	12000	4000	8000	
Distance between prefitted 482.6 mm (19") levels mm		720	720	–	520	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 193	150 / 330	150 / 372	150 / 130	
Model No.	1 pc(s).	**5308.123**	**5310.128**	**5306.122**	**5307.124**	
Product-specific scope of supply, roof plate						
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	■	–	–	
Roof plate, multi-piece, with horizontal cable entry at the rear and prepared for fan mounting plate	1 pc(s).	–	–	■	–	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	–	–	■	
Product-specific scope of supply, door						
Sheet steel rear door, solid, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Accessories						
Side panel, screw-fastened, sheet steel	2 pc(s).	8100.245	8102.245	8106.245	8108.245	901
Side panel, horizontally divided	1 pc(s).	5301.250	5301.254	–	–	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.338	5301.341	5301.336	5301.337	897

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with glazed door, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	42	42	47	47	Page
Width mm		800	800	800	800	
Height mm		2000	2000	2200	2200	
Depth mm		1000	1200	800	1000	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		on depth stays, screw-fastened at the top and bottom	screw-fastened onto depth stays, top and bottom, and to the support rail on the frame structure	on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		15000	15000	8000	15000	
Max. load capacity (static) per enclosure to UL 2416 N		12000	12000	8000	12000	
Distance between prefitted 482.6 mm (19") levels mm		720	720	520	720	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 193	150 / 330	150 / 130	87 / 193	
Model No.	1 pc(s).	**5309.126**	**5311.126**	**5312.124**	**5314.126**	
Product-specific scope of supply, roof plate						
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	■	■	■	■	
Product-specific scope of supply, door						
Sheet steel rear door, solid, vertically divided, 180° hinges	1 pc(s).	■	■	■	■	
Accessories						
Side panel, screw-fastened, sheet steel	2 pc(s).	8100.245	8102.245	8128.245	8120.245	901
Side panel, horizontally divided	1 pc(s).	5301.250	5301.254	–	5301.257	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.344	5301.347	5301.337	5301.344	897

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Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Sheet steel rear door, solid, vertically divided, 180° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Spacers, height 50 mm, to raise the cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with glazed door, with 482.6 mm (19") mounting angles, dynamic

Units U	Packs of	42	42	42	Page
Width mm		600	800	800	
Height mm		2000	2000	2000	
Depth mm		1000	1000	1200	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	on depth stays, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		18000	18000	18000	
Max. load capacity (static) per enclosure to UL 2416 N		15000	15000	15000	
Distance between prefitted 482.6 mm (19") levels mm		700	700	725	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 213	87 / 213	150 / 325	
Model No.	1 pc(s).	**5308.823**	**5309.826**	**5311.826**	
Product-specific scope of supply, roof plate					
Roof plate, multi-piece, with cable entry in the corner sections front and rear	1 pc(s).	■	–	–	
Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate	1 pc(s).	–	■	■	
Accessories					
Side panel, screw-fastened, sheet steel	2 pc(s).	8100.245	8100.245	8102.245	901
Side panel, horizontally divided	1 pc(s).	5301.250	5301.250	5301.254	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	5301.310	914
Gland plate set, multi-piece, solid	1 pc(s).	5301.338	5301.344	5301.347	897

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Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation: RAL 9005
- Handle and hinges: RAL 9005

Protection category IP to IEC 60 529:
- IP 55 only in conjunction with baying seal or screw-fastened side panels

Supply includes:
- VX enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Sheet steel rear door, solid, one-piece, 130° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Roof plate, one-piece, solid
- Base tray with gland plate, multi-piece, solid
- Baying seal and sealing kit for gland plates (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with glazed door, IP 55, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	24	24	42	42	42	42	Page
Width mm		600	800	600	600	800	800	
Height mm		1200	1200	2000	2000	2000	2000	
Depth mm		600	800	600	800	800	1000	
Mounting position of the 482.6 mm (19") level(s)		front	front and rear	front	front and rear	front and rear	front and rear	
482.6 mm (19") attachment		with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	with mounting bracket screw-fastened to the frame at the top and bottom	on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		7500	8000	7500	15000	8000	15000	
Max. load capacity (static) per enclosure to UL 2416 N		6000	8000	6000	12000	8000	12000	
Distance between prefitted 482.6 mm (19") levels mm		–	520	–	520	520	720	
Free mounting space to the 482.6 mm (19") level, front/rear mm		87 / 435	150 / 130	87 / 435	87 / 193	150 / 130	87 / 193	
Model No.	1 pc(s).	**5326.131**	**5303.134**	**5329.131**	**5330.133**	**5307.134**	**5309.136**	
Accessories								
Side panel, screw-fastened, sheet steel	2 pc(s).	8170.245	8175.245	8106.245	8108.245	8108.245	8100.245	901
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	8617.502	912
Combination rails	4 pc(s).	5302.020	5302.021	5302.020	5302.021	5302.021	5302.022	1063
Cable route	1 pc(s).	–	–	5302.120	5302.120	5302.120	5302.120	1066
Component shelf for frame attachment		see page	see page	see page	see page	see page	see page	1006

IT power Page 723 **IT cooling** Page 757 **IT monitoring** Page 799 **System accessories** Page 877

Material:
- Sheet steel
- Aluminium
- Plastic
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation, base/plinth: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Side panels, one-piece, screw-fastened
- Roof plate, multi-piece, with side cable entry in the depth, double-sided, prepared for fan mounting plate
- Base module mounted at front as infill panel
- Base/plinth system VX, 100 mm, vented
- Base/plinth corner pieces and trim panels, sides, screw-fastened
- Base/plinth trim panels, front and rear plus corner and baying covers supplied loose
- 4 levelling feet, M12, including base/plinth adaptor (supplied loose)
- Spacers to raise the fan cover plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- 4 combination rails for inner and outer mounting level, to fit rack depth (supplied loose)
- 10 cable shunting rings, metal, 125 x 65 mm (supplied loose)
- IPPC pallet

Please observe the product-specific scope of supply.

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

with glazed door, pre-configured, with 482.6 mm (19") mounting angles, standard

Units U	Packs of	24	42	42	Page
Width mm		800	800	800	
Height mm		1200	2000	2000	
Height including base/plinth mm		1300	2100	2100	
Depth mm		800	800	1000	
Mounting position of the 482.6 mm (19") level(s)		front and rear	front and rear	front and rear	
482.6 mm (19") attachment		on the cross-member, screw-fastened at the top and bottom	on the cross-member, screw-fastened at the top and bottom	on depth stays, screw-fastened at the top and bottom	
Max. load capacity (static) per enclosure N		8000	8000	15000	
Max. load capacity (static) per enclosure to UL 2416 N		8000	8000	12000	
Distance between prefitted 482.6 mm (19") levels mm		520	520	720	
Free mounting space to the 482.6 mm (19") level, front/rear mm		150 / 130	150 / 130	87 / 193	
Model No.	1 pc(s).	**5303.154**	**5307.154**	**5309.156**	
Product-specific scope of supply, door					
Sheet steel rear door, solid, one-piece, 130° hinges	1 pc(s).	■	–	–	
Sheet steel rear door, solid, vertically divided, 180° hinges	1 pc(s).	–	■	■	
Accessories					
Fan mounting plate	1 pc(s).	5502.020	5502.020	5502.020	790
Combination rails	4 pc(s).	5302.021	5302.021	5302.022	1063
Gland plate set, multi-piece, solid	1 pc(s).	5301.337	5301.337	5301.344	897
Castor module	2 pc(s).	5301.518	5301.518	5301.518	894

Network/server racks VX IT

IT power Page 723 **IT cooling** Page 757 **IT monitoring** Page 799 **System accessories** Page 877

Material:
- Sheet steel
- Aluminium
- Plastic
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Interior installation: Spray-finished
- Rear panel and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear panel and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Interior installation, base/plinth: RAL 9005
- Handle and hinges: RAL 9005

Supply includes:
- VX enclosure frame with doors and roof plate
- Glazed aluminium door at the front (180°), with comfort handle for profile half-cylinders and security lock 3524 E
- Rear panel
- Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate
- Base module mounted at front as infill panel
- Swing frame, large, with side trim panel for the installation of 482.6 mm (19") mounting components whilst utilising the full rack height, 130°
- Side panels, one-piece, for screw fastening
- Base/plinth system VX, 100 mm, vented
- Base/plinth corner pieces and trim panels, sides, screw-fastened
- Base/plinth trim panels, front and rear plus corner and baying covers supplied loose
- 4 levelling feet, M12, including base/plinth adaptor (supplied loose)
- Spacers, height 50 mm, to raise the cover plate above the fan cut-out in the roof plate, for passive cooling (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- 4 combination rails for inner and outer mounting level, to fit rack depth (supplied loose)
- 10 cable shunting rings, metal, 125 x 65 mm (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with glazed door, pre-configured, with 482.6 mm (19") swing frame

Width mm	Packs of	800	Page
Height mm		2000	
Height including base/plinth mm		2100	
Depth mm		800	
Max. load capacity (static) per enclosure N		3500	
Model No.	1 pc(s).	**5307.157**	
Accessories			
Fan mounting plate	1 pc(s).	5502.020	790
Combination rails	4 pc(s).	5302.021	1063
Cable route	1 pc(s).	5302.120	1066
Gland plate set, multi-piece, solid	1 pc(s).	5301.337	897

IT power Page 723 **IT cooling** Page 757 **IT monitoring** Page 799 **System accessories** Page 877

Material:
- Sheet steel
- Aluminium
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Enclosure frame: Dipcoat-primed
- Rear door and roof: Dipcoat-primed, powder-coated
- Front door: Aluminium, anodised/spray-finished

Colour:
- Enclosure frame, rear door and roof: RAL 7035
- Front door: Vertical sections, silver coloured and horizontal sections, RAL 9005
- Handle and hinges: RAL 9005

Protection category IP to IEC 60 529:
- IP 55 only in conjunction with baying seal or screw-fastened side panels

Supply includes:
- VX enclosure frame with doors and roof plate
- Glazed aluminium door at the front, 180° hinges
- Sheet steel rear door, solid, one-piece, 130° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- Roof plate, one-piece, solid
- Base tray with gland plate, multi-piece, solid
- Baying seal and sealing kit for gland plates (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 25 multi-tooth screws, conductive (supplied loose)
- IPPC pallet

Note:
- Depending on how and where it is sited, the door opening angle may vary for selected applications

Approvals:
- UL
- cUL

with glazed door, IP 55, empty rack

Width mm	Packs of	600	600	600	600	600	600	Page
Height mm		800	1200	1800	1800	2000	2000	
Depth mm		600	600	600	800	1000	600	
Model No.	1 pc(s).	**5325.190**	**5326.190**	**5327.190**	**5328.190**	**5308.190**	**5329.190**	
Accessories								
Side panel, screw-fastened, sheet steel	2 pc(s).	8173.245	8170.245	8186.245	8188.245	8100.245	8106.245	901
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	8617.502	912
Cable route	1 pc(s).	–	–	–	–	5302.120	5302.120	
Combination rails	4 pc(s).	5302.020	5302.020	5302.020	5302.021	5302.022	5302.020	1063
Component shelf for frame attachment		see page	see page	see page	see page	see page	see page	1006

with glazed door, IP 55, empty rack

Width mm	Packs of	600	600	800	800	800	Page
Height mm		2000	2200	2000	2000	2000	
Depth mm		800	800	600	800	1000	
Model No.	1 pc(s).	**5330.190**	**5331.190**	**5306.190**	**5307.190**	**5309.190**	
Accessories							
Side panel, screw-fastened, sheet steel	2 pc(s).	8108.245	8128.245	8106.245	8108.245	8100.245	901
Baying connector, external	6 pc(s).	8617.502	8617.502	8617.502	8617.502	8617.502	912
Cable route	1 pc(s).	5302.120	5302.122	5302.120	5302.120	5302.120	1066
Combination rails	4 pc(s).	5302.021	5302.021	5302.020	5302.021	5302.022	1063
Component shelf for frame attachment		see page	see page	see page	see page	see page	1006

Cable management enclosure

More space for network cabling

The cable management enclosure is the ideal solution when you need to manage large quantities of cables, especially surplus cables. Because it is fitted as standard with six punched sections with mounting flanges, the enclosure is perfectly equipped to accommodate a wide range of cable management systems. The cable management enclosure can also be used for the symmetrical balancing of cold/ hot aisle containment.

The benefit to you:

- Optimum integration into VX IT rack suites, 2000 mm high and 1000 / 1200 mm deep
- Doors at the front and rear for easy access
- Fast cable entry in the base and roof section, thanks to integral brush strips

Cable management rack VX IT

Cable management Page 1044 **System accessories** Page 877 **IT monitoring** Page 799 **IT cooling** Page 757

For laying, securing and storing cables or as an empty enclosure with uneven Liquid Cooling Package (LCP) installations.

Applications:
- As a cable management rack between fully configured network and server racks
- As an empty rack for symmetrical balancing in cold/hot aisle containment with an uneven number of LCPs in two enclosure suites
- As a placeholder for easy retrofitting of LCP installations

Benefits:
- Optimum accommodation of surplus cables and structured cable management

Material:
- Sheet steel
- Aluminium

Surface finish:
- Enclosure frame: Dipcoat-primed
- Doors and roof: Dipcoat-primed, powder-coated

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Supply includes:
- Enclosure frame with front and rear door
- Aluminium door, front, solid with black designer trim panel, 180° hinges
- Sheet steel rear door, solid, one-piece, 130° hinges
- Lock front and rear: Comfort handle for profile half-cylinders and security lock 3524 E
- 2 roof/base plates, with cut-outs for cable entry via brush strips
- 3 VX punched sections with mounting flanges mounted on the left and right
- Baying seal

Note:
- For positioning at the start/end of an enclosure suite, a side panel will be required

Width mm	Packs of	300	300	Page
Height mm		2000	2000	
Depth mm		1000	1200	
Model No.	1 pc(s).	**5380.830**	**5381.830**	
Accessories				
Side panel, horizontally divided	1 pc(s).	5301.250	5301.254	902
Baying connector, external, 3 mm	1 pc(s).	5301.310	5301.310	914
Combination rails	4 pc(s).	5302.022	5302.025	1063
Nylon tape holder	10 pc(s).	5502.155	5502.155	1062
Cable manager	20 pc(s).	5502.405	5502.405	1064
Cable shunting ring		see page	see page	1064
Cable clip		see page	see page	1060
Surplus cable holder	1 pc(s).	7220.500	7220.500	1066
Support	1 pc(s).	7246.500	7246.500	1097

Network racks TE 8000

Efficient and cost-effective

TE 8000 – the flexible network rack

- 482.6 mm (19″) network rack, may be dismantled, which uses the 482.6 mm (19″) level as its supporting structure
- By removing the doors and side panels, free access is available from all sides
- The entire interior is available to use for IT components, cabling and accessories
- Fast assembly, dismantling and conversion (dismantles fully for transporting to confined locations)

Comprehensive range of accessories for customised interior installation

- AX comfort handle with various lock options
- Brush strip for sealing the cable entries in the roof plate
- Depth-variable cable guide rail
- Universal interior installation with depth-variable attachment
- Direct installation on the 482.6 mm (19″) mounting frame

System accessories for assembling a professional IT environment

- Power distribution system (PDU) in a range of sizes and functions
- Enclosure monitoring with the CMC III monitoring system
- Optimum cable management with the Network Cable Organizer (NCO)
- Cooling options for use in the network sector

Network racks TE 8000

System accessories Page 877 **IT monitoring** Page 799 **IT cooling** Page 757 **IT power** Page 723

Benefits:
- No frame structure
- Optimum accessibility
- Readily dismantled and therefore easily installed
- Interchangeable door hinge

Material:
- Sheet steel
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Mounting frame: Dipcoat-primed
- Enclosure panels: Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Max. load capacity (static) per enclosure:
- 4000 N

Supply includes:
- Self-supporting 482.6 mm (19") mounting frames, front and rear, depth-variable
- Glazed door at the front, including 130° hinge, designer handle and security lock 3524 E
- Sheet steel door at the rear, including 130° hinge, security lock 3524 E
- Base frame with maximum cut-out (for optional population with module plates)
- Roof plate including concealed cut-out for cable entry and optional fan
- 4 levelling feet, M10 (supplied loose)
- 4 spacers, 20 mm (supplied loose) to raise the roof plate

Please observe the product-specific scope of supply.

Width 600 mm

Units U	Packs of	11	11	24	24	42	42	Page
Width mm		600	600	600	600	600	600	
Height mm		600	600	1200	1200	2000	2000	
Depth mm		600	800	600	800	600	800	
Distance between prefitted 482.6 mm (19") levels mm		495	495	495	495	495	495	
Free mounting space to the 482.6 mm (19") level, front/rear mm		30 / 30	130 / 130	30 / 30	130 / 130	30 / 30	130 / 130	
Model No.	1 pc(s).	**7888.390**	**7888.410**	**7888.430**	**7888.440**	**7888.500**	**7888.510**	
Product-specific scope of supply								
Side panels, lockable, including security lock 3524 E	2 pc(s).	■	■	■	■	■	■	
Accessories								
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	1097
Side panel		–	–	–	–	–	–	
Baying kit	4 pc(s).	7888.640	7888.640	7888.640	7888.640	7888.640	7888.640	916
Brush kit	2 pc(s).	7888.610	7888.610	7888.610	7888.610	7888.610	7888.610	963
Fan mounting plate	1 pc(s).	5502.020	5502.020	5502.020	5502.020	5502.020	5502.020	790
Complete earthing kit	1 pc(s).	7000.675	7000.675	7000.675	7000.675	7000.675	7000.675	1036
Comfort handle AX	1 pc(s).	2435.100	2435.100	2435.100	2435.100	2435.100	2435.100	939
Component shelf, static installation	1 pc(s).	7000.620	7000.620	7000.620	7000.620	7000.620	7000.620	1008
Component shelf, pull-out	1 pc(s).	7000.625	7000.625	7000.625	7000.625	7000.625	7000.625	1009
Slide rail	2 pc(s).	7963.410	7963.410	7963.410	7963.410	7963.410	7963.410	1088
Socket strip in a plastic housing	1 pc(s).	7000.630	7000.630	7000.630	7000.630	7000.630	7000.630	1041

Width 800 mm

Units U	Packs of	24	42	42	42	Page
Width mm		800	800	800	800	
Height mm		1200	2000	2000	2000	
Depth mm		800	600	800	800	
Distance between prefitted 482.6 mm (19") levels mm		495	495	495	495	
Free mounting space to the 482.6 mm (19") level, front/rear mm		130 / 130	30 / 30	130 / 130	130 / 130	
Model No.	1 pc(s).	**7888.460**	**7888.520**	**7888.530**	**7888.532**	
Product-specific scope of supply						
Side panels, lockable, including security lock 3524 E	2 pc(s).	■	■	■	–	
Baying kit	4 pc(s).	–	–	–	■	
Accessories						
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	1097
Side panel	2 pc(s).	–	–	–	7888.652	903
Baying kit	4 pc(s).	7888.640	7888.640	7888.640	–	916
Brush kit	2 pc(s).	7888.612	7888.612	7888.612	7888.612	963
Fan mounting plate	1 pc(s).	5502.020	5502.020	5502.020	5502.020	790
Complete earthing kit	1 pc(s).	7000.675	7000.675	7000.675	7000.675	1036
Comfort handle AX	1 pc(s).	2435.100	2435.100	2435.100	2435.100	939
Component shelf, static installation	1 pc(s).	7000.620	7000.620	7000.620	7000.620	1008
Component shelf, pull-out	1 pc(s).	7000.625	7000.625	7000.625	7000.625	1009
Slide rail	2 pc(s).	7963.410	7963.410	7963.410	7963.410	1088
Socket strip in a plastic housing	1 pc(s).	7000.630	7000.630	7000.630	7000.630	1041

Network racks TE 8000

System accessories Page 877 **IT monitoring** Page 799 **IT cooling** Page 757 **IT power** Page 723

Benefits:
- No frame structure
- Optimum accessibility
- Readily dismantled and therefore easily installed
- Interchangeable door hinge

Material:
- Enclosure: Sheet steel
- Glazed door: Single-pane safety glass, 3 mm

Surface finish:
- Mounting frame: Dipcoat-primed
- Enclosure panels: Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Max. load capacity (static) per enclosure:
- 4000 N

Supply includes:
- Self-supporting 482.6 mm (19") mounting frames, front and rear, depth-variable
- Glazed door at the front, including 130° hinge, designer handle and security lock 3524 E
- Sheet steel door at the rear, including 130° hinge, security lock 3524 E
- Side panels, lockable, including security lock 3524 E
- Base frame with maximum cut-out (for optional population with module plates)
- Roof plate including concealed cut-out for cable entry and optional fan
- 4 levelling feet, M12, including base/plinth adaptor (supplied loose)
- 4 spacers, 20 mm (supplied loose) to raise the roof plate
- Base/plinth system VX, 100 mm, vented
- Tested frame earthing to IEC 60 950, fitted
- 4 cable guide rails, for cable clamping in the enclosure depth via cable clamps (supplied loose)
- 10 cable shunting rings, metal, 125 x 65 mm (supplied loose)
- 12 x 482.6 mm (19") fastener, 1 U, conductive (supplied loose)
- 50 multi-tooth screws, conductive (supplied loose)
- Brush kit for cable entry in the roof (supplied loose)

Pre-configured

Units U	Packs of	24	42	Page
Width mm		800	800	
Height mm		1200	2000	
Height including base/plinth mm		1300	2100	
Depth mm		800	800	
Distance between prefitted 482.6 mm (19") levels mm		495	495	
Free mounting space to the 482.6 mm (19") level, front/rear mm		130 / 130	130 / 130	
Model No.	1 pc(s).	**7888.840**	**7888.850**	
Accessories				
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	1097
Baying kit	4 pc(s).	7888.640	7888.640	916
Fan mounting plate	1 pc(s).	5502.020	5502.020	790
Complete earthing kit	1 pc(s).	7000.675	7000.675	1036
Comfort handle AX	1 pc(s).	2435.100	2435.100	939
Component shelf, static installation	1 pc(s).	7000.620	7000.620	1008
Slide rail	2 pc(s).	7963.410	7963.410	1088
Complete CAT 6 system		see page	see page	1069
IT LED system light	1 pc(s).	7859.000	7859.000	1027
Socket strip in a plastic housing	1 pc(s).	7000.630	7000.630	1041

Network racks TE 8000

System accessories Page 877 **Power System Module** Page 744 **IT monitoring** Page 799 **Climate control** Page 449

Benefits:
- No frame structure
- Optimum accessibility
- Readily dismantled and therefore easily installed
- Interchangeable door hinge

Material:
- Sheet steel

Surface finish:
- Mounting frame: Dipcoat-primed
- Enclosure panels: Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Max. load capacity (static) per enclosure:
- 7000 N

Supply includes:
- Self-supporting 482.6 mm (19") mounting frames, front and rear, depth-variable
- Sheet steel door vented (vented surface area > 67%), front with designer handle, 130° hinge, security lock 3524 E
- Sheet steel door vented (vented surface area > 67%), rear with 130° hinge, security lock 3524 E
- Base frame with maximum cut-out (for optional population with module plates)
- Roof plate including concealed cut-out for cable entry and optional fan
- 4 levelling feet, M10 (supplied loose)
- 4 spacers, 20 mm (supplied loose) to raise the roof plate

Please observe the product-specific scope of supply.

Vented

Units U	Packs of	24	42	42	Page
Width mm		600	600	800	
Height mm		1200	2000	2000	
Depth mm		1000	1000	1000	
Distance between prefitted 482.6 mm (19") levels mm		745	745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		80 / 130	80 / 130	80 / 130	
Model No.	1 pc(s).	**7888.875**	**7888.882**	**7888.892**	
Product-specific scope of supply					
Side panels, lockable, including security lock 3524 E	2 pc(s).	■	–	–	
Baying kit	4 pc(s).	–	■	■	
Accessories					
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	1097
Side panel	2 pc(s).	–	7888.653	7888.653	903
Baying kit	4 pc(s).	7888.640	–	–	916
Brush kit	2 pc(s).	7888.610	7888.610	7888.612	963
Complete earthing kit		see page	see page	see page	1036
Comfort handle AX	1 pc(s).	2435.100	2435.100	2435.100	939
Component shelf, static installation	1 pc(s).	5501.665	5501.665	5501.665	1008
Component shelf, pull-out	1 pc(s).	5501.685	5501.685	5501.685	1009
Slide rails, heavy-duty	2 pc(s).	7063.740	7063.740	7063.740	1087
Slide rail, 1 U, depth-variable	2 pc(s).	5302.035	5302.035	5302.035	1088
Combination rails	4 pc(s).	5302.020	5302.020	5302.020	1063
Cable clamp rail, depth-variable	1 pc(s).	5302.044	5302.044	5302.044	1063
Transport castors	4 pc(s).	7000.672	7000.672	7000.672	895
Socket strip in a plastic housing	1 pc(s).	7000.630	7000.630	7000.630	1041

Distributor racks

19" installation Page 1079 **System accessories** Page 877 **TE 8000** Page 703

Benefits:
- Optimum accessibility from all sides during assembly and nstallation
- Unrestricted airflow, due to the open design
- The distance between attachment levels is infinitely variable

Material:
- Sheet steel

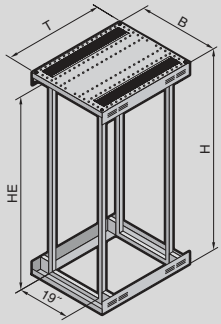
Surface finish:
- Powder-coated

Colour:
- RAL 7035

Max. load capacity (static) per enclosure:
- 7000 N

Supply includes:
- Self-supporting mounting frame, with 482.6 mm (19") mounting level front and rear
- Roof-plate, prepared for accommodating cable organisers
- Open base frame with 2 punched sections with mounting flanges for individual configuration fitted in the width
- 4 levelling feet, M10 (supplied loose)

Please observe the product-specific scope of supply.



TE 8000 open

Units U	Packs of	42	42	Page
Width mm		600	800	
Height mm		2000	2000	
Depth mm		1000	1000	
Distance between prefitted 482.6 mm (19") levels mm		745	745	
Free mounting space to the 482.6 mm (19") level, front/rear mm		80 / 130	80 / 130	
Model No.	1 pc(s).	**7888.940**	**7888.944**	
Product-specific scope of supply				
Roof plate with brush strip, rear horizontal		■	–	
Roof plate with brush strip on both sides		–	■	
Accessories				
Cable organiser	4 pc(s).	7888.950	7888.950	963
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	1097
Component shelf, static installation	1 pc(s).	5501.665	5501.665	1008
Component shelf, pull-out	1 pc(s).	5501.685	5501.685	1008
Slide rails, heavy-duty	2 pc(s).	7063.740	7063.740	1087
Slide rail, 1 U, depth-variable	2 pc(s).	5302.035	5302.035	1088
Combination rails	4 pc(s).	5302.026	5302.026	1074
Cable route	1 pc(s).	7000.685	7000.685	1066
Cable duct	1 pc(s).	–	–	
Cable routing bars, 482.6 mm (19") attachment	4 pc(s).	7111.224	7111.224	1067
Shunting ring	4 pc(s).	–	7220.600	1064
Cable management panel		see page	see page	1072

19" installation Page 1079 **IT monitoring** Page 799 **Power System Module** Page 747 **Accessories for Data Rack** Page 1079

Material:
- Profile frame, base/plinth: Sheet steel
- Feet: Die-cast zinc

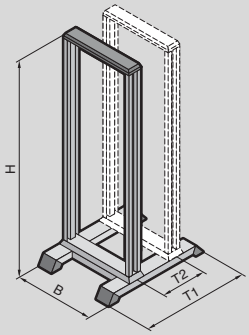
Colour:
- Profile frame, base/plinth: RAL 7035
- Trim panel, feet: RAL 5018

Max. load capacity (static) per 482.6 mm (19") level:
- 1500 N

Supply includes:
- Torsionally stiff profile frame with 482.6 mm (19") punchings
- Stable base/plinth with integral feet, with the option of floor anchoring without base trim panels
- Mounting accessories

Note:
- Order second mounting level separately

Photo shows a configuration example with equipment not included in the scope of supply



Data Rack

Units U	Packs of	31	36	40	45	Page
Width (B) mm		550	550	550	550	
Height (H) mm		1500	1722	1900	2122	
Depth (T1) mm		750	750	750	750	
Distance from the second mounting level, 50 mm pitch pattern (T2) mm		150 - 350	150 - 350	150 - 350	150 - 350	
Model No.	1 pc(s).	**7391.000**	**7396.000**	**7400.000**	**7445.000**	
Accessories						
Second pair of mounting angles	1 pc(s).	7296.000	7297.000	7298.000	7299.000	1079
Levelling feet		see page	see page	see page	see page	892
Twin castors	1 pc(s).	7495.000	7495.000	7495.000	7495.000	893
Baying clamp	3 pc(s).	7494.000	7494.000	7494.000	7494.000	1079
Support strips	2 pc(s).	7401.000	7401.000	7401.000	7401.000	1079
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	1010
Component shelf 2 U, static installation		see page	see page	see page	see page	1010
Slide rail, 2 U, static installation, continuous	2 pc(s).	7402.000	7402.000	7402.000	7402.000	1079
Slide rail		see page	see page	see page	see page	1079
Combination rails	4 pc(s).	5302.026	5302.026	5302.026	5302.026	1074
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	1097
Keyboard drawer 2 U	1 pc(s).	7281.035	7281.035	7281.035	7281.035	1115

Small IT racks series

Solutions for every application

VerticalBox – the ideal solution for small networks in office environments

- Compact wall-mounted, under-desk or desktop rack
- Free access from all sides to the 482.6 mm (19″) level
- Door and side parts may be dismantled with no need for tools
- Passive ventilation as standard, fan may be retrofitted

FlatBox – the space-saving flat-pack solution

- 482.6 mm (19″) rack for networks in office environments
- Supplied flat-packed, for easy and fast tool-free assembly
- May be used as wall-mounted or floor-standing enclosure, with free access from all sides
- Passive ventilation as standard, fan may be retrofitted

Wall-mounted enclosure EL, 3-part – optimum access to IT components

- Flexible wall-mounted enclosure in a range of designs and outputs
- Vertically hinged centre part for optimum access to IT equipment
- Suitable for industrial and IT applications
- High protection category up to IP 55

AX IT – for use in harsh environments

- Enclosure series to accommodate small IT components
- Data collection and distribution in industrial environments
- High protection category up to IP 66

VerticalBox

System accessories Page 877

Compact 482.6 mm (19") enclosure for small networks.

Benefits:
- May be used as wall-mounted, under-desk or desktop enclosure
- Free access from three sides for interior installation
- Passive ventilation with vent slots
- Rear panel prepared to accommodate a fan
- Freely selectable door hinging
- Space-saving, vertical mounting of 482.6 mm (19") installation components at the side

Material:
- Sheet steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:
- Powder-coated

Colour:
- RAL 7035

Supply includes:
- Enclosure with glazed door
- Side panels (1 x fixed, 1 x slot-in) with vent slots
- Knockouts for cable entry via roof or base
- Slot-in rear panel with knockouts for cable entry and fan accommodation
- 482.6 mm (19") mounting level, 5 U, horizontal front and rear, depth-variable, distance between levels 434 – 489 mm
- Security lock 12321 on the door, side and rear panel
- 4 plastic feet, self-adhesive

Units U	Packs of	5	Page
Width mm		300	
Height mm		540	
Depth mm		600	
Model No.	1 pc(s).	**7501.000**	
Accessories			
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	1097
Captive nuts	50 pc(s).	2094.500	1098
Assembly screws	50 pc(s).	7094.130	1098
IT LED system light	1 pc(s).	7859.000	1027
Brush strip	1 pc(s).	7072.200	1055
Complete earthing kit	1 pc(s).	7000.675	1036
Fan expansion kit	1 pc(s).	7980.100	790
Socket strip in a plastic housing	1 pc(s).	7000.630	1041
Socket strip for IEC 320 connectors	1 pc(s).	7240.200	1040
Socket strip in an aluminium duct		see page	1040
Blanking panel, 482.6 mm (19")		see page	1093
Cable management panel		see page	1072
Cable management panel with brush strip	1 pc(s).	5302.202	1074

System accessories Page 877

For flexible use as a wall-mounted or floor-standing enclosure.

Benefits:
- Tool-free quick assembly
- System assembly on the open 482.6 mm (19") frame

Material:
- Sheet steel
- Viewing window: Single-pane safety glass, 3 mm

Surface finish:
- Powder-coated

Colour:
- RAL 7035

Supply includes:
- Flat-packed enclosure
- 1 wall section
- 2 basic supports
- 2 roof/base plates, with cut-outs for cable entry via brush strips
- 2 side panels, lockable
- 1 glazed door, lockable, security lock 3524 E, door hinge point selectable
- Connection components for tool-free, fast assembly
- Earthing kit for system-compatible earthing of all enclosure parts

Please observe the product-specific scope of supply.

Note:
- Max. installation depth: Depth - 58 mm to rear panel
- Max. distance between two 482.6 mm (19") levels: Depth - 104 mm

Photo shows a configuration example with equipment not included in the scope of supply

Design with 482.6 mm (19") mounting angles

Units U	Packs of	6	6	9	9	Page
Width mm		600	600	600	600	
Height mm		358	358	492	492	
Depth mm		400	600	400	600	
Load capacity		max. 300 N	max. 300 N	max. 450 N	max. 450 N	
Model No.	1 pc(s).	**7507.000**	**7507.100**	**7507.010**	**7507.110**	
Product-specific scope of supply						
482.6 mm (19") mounting frame	1 pc(s).	■	■	■	■	
Accessories						
Base/plinth	1 pc(s).	–	7507.750	–	7507.750	891
Transport castors	4 pc(s).	7000.672	7000.672	7000.672	7000.672	895
Levelling feet	4 pc(s).	7507.740	7507.740	7507.740	7507.740	892
Mounting angles, 482.6 mm (19")	2 pc(s).	7507.706	7507.706	7507.709	7507.709	1085
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	1097
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	1010
Component shelf 2 U, static installation		see page	see page	see page	see page	1010
Component shelf, pull-out	1 pc(s).	–	5501.675	–	5501.675	1007
Cover plates for fan panels	6 pc(s).	7507.760	7507.760	7507.760	7507.760	791
Combination rails	4 pc(s).	5302.026	5302.026	5302.026	5302.026	1074
Fan expansion kit		see page	see page	see page	see page	790
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205	1072
Cable management panel with brush strip	1 pc(s).	5302.202	5302.202	5302.202	5302.202	1074
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	1036
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	547

FlatBox

Design with 482.6 mm (19") mounting frame

Units U	Packs of	12	12	15	15	18	21	Page
Width mm		600	600	600	700	700	700	
Height mm		625	625	758	758	892	1025	
Depth mm		400	600	400	700	700	700	
Load capacity		max. 600 N	max. 600 N	max. 750 N	max. 750 N	max. 750 N	max. 750 N	
Model No.	1 pc(s).	**7507.020**	**7507.120**	**7507.030**	**7507.200**	**7507.210**	**7507.220**	
Product-specific scope of supply								
482.6 mm (19") mounting angles	2 pc(s).	■	■	■	■	■	■	
Accessories								
Base/plinth	1 pc(s).	–	7507.750	–	7507.755	7507.755	7507.755	891
Transport castors	4 pc(s).	7000.672	7000.672	7000.672	7000.672	7000.672	7000.672	895
Levelling feet	4 pc(s).	7507.740	7507.740	7507.740	7507.740	7507.740	7507.740	892
Mounting angles, 482.6 mm (19")	2 pc(s).	7507.712	7507.712	7507.715	7507.715	7507.718	7507.721	1085
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	1097
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	5501.635	1010
Component shelf 2 U, static installation		see page	see page	see page	see page	see page	see page	1010
Component shelf, pull-out	1 pc(s).	–	5501.675	–	5501.675	5501.675	5501.675	1007
Cover plates for fan panels	6 pc(s).	7507.760	7507.760	7507.760	7507.760	7507.760	7507.760	791
Combination rails	4 pc(s).	5302.026	5302.026	5302.026	5302.026	5302.026	5302.026	1074
Fan expansion kit		see page	see page	see page	see page	see page	see page	790
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205	5502.205	5502.205	1072
Cable management panel with brush strip	1 pc(s).	5302.202	5302.202	5302.202	5302.202	5302.202	5302.202	1074
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	7113.000	7113.000	1036
Thermostat	1 pc(s).	3110.000	3110.000	3110.000	3110.000	3110.000	3110.000	547

Wall-mounted enclosures EL, 3-part

System accessories Page 877 **Socket strips** Page 1040 **Wall mounting bracket** Page 958 **Cable clamps** Page 1060

Wall-mounted enclosure with optimum accessibility due to hinged part.

Material:
– Wall and hinged part: Sheet steel, 1.5 mm
– Viewing window: Single-pane safety glass, 3 mm

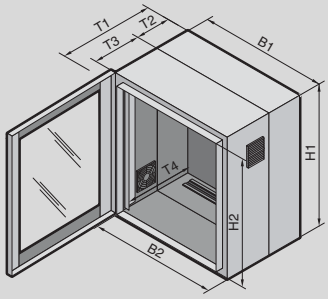
Surface finish:
– Powder-coated

Colour:
– Wall and hinged part: RAL 7035
– Glazed door: RAL 7035/7015 (slate grey)

Protection category IP to IEC 60 529:
– IP 54 in conjunction with solid gland plate, top and bottom

Supply includes:
– Wall section with solid gland plate at the top and brush strip at the bottom, two vertical mounting rails and C rail, horizontal, for cable clamping
– Hinged part with 25 mm pitch pattern of holes in the front and rear frame, two 482.6 mm (19") mounting angles at the front, infinitely depth-variable, and side outlet filters on the left and right
– Earth rail with star earthing
– Designer glazed door
– 1 double-kit key no. 5
Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL



Pre-configured with mounting angles, depth-variable

Units U	Packs of	9	9	15	15	21	21	Page
Width (B1) mm		600	600	600	600	600	600	
Height (H1) mm		478	478	746	746	1012	1012	
Depth (T1) mm		573	673	573	673	573	673	
Clearance width (B2) mm		502	502	502	502	502	502	
Clearance height (H2) mm		415	415	683	683	949	949	
Depth of wall section (T2) mm		135	135	135	135	135	135	
Depth of hinged part (T3) mm		416	516	416	516	416	516	
Max. installation depth (T4) mm		520	620	520	620	520	620	
Load capacity of hinged part (static) N		450	450	750	750	750	750	
Model No.	1 pc(s).	**7709.735**	**7709.535**	**7715.735**	**7715.535**	**7721.735**	**7721.535**	
Product-specific scope of supply								
Wall mounting bracket, 10 mm	4 pc(s).	■	–	■	–	■	–	
Mini-comfort handle for lock inserts	1 pc(s).	■	■	■	■	–	–	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	■	
Wall mounting bracket, 10 mm, reinforced	4 pc(s).	–	■	–	■	–	■	
Comfort handle for lock inserts and 2-point locking	1 pc(s).	–	–	–	–	■	■	
Accessories								
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	1054
Fan expansion kit	1 pc(s).	7980.100	7980.100	7980.100	7980.100	7980.100	7980.100	790
Spare filter mat	5 pc(s).	3322.700	3322.700	3322.700	3322.700	3322.700	3322.700	535
Component shelf 2 U, static installation		see page	see page	see page	see page	see page	see page	1010
Cable management panel	1 pc(s).	7257.200	7257.200	7257.200	7257.200	7257.200	7257.200	1072
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	1097
Wall mounting bracket	4 pc(s).	2503.020	–	2503.020	–	2503.020	–	967

Wall-mounted enclosures EL, 3-part

System accessories Page 877 **Socket strips** Page 1040 **Wall mounting bracket** Page 958 **Earthing** Page 1033

Wall-mounted enclosure with optimum accessibility due to hinged part.

Material:
– Wall and hinged part: Sheet steel, 1.5 mm
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

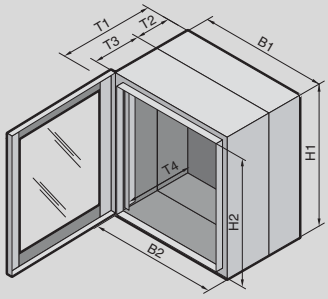
Colour:
– Wall and hinged part: RAL 7035
– Glazed door: RAL 7035/7015 (slate grey)

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Wall section with solid gland plate, top and bottom, two vertical mounting rails and C rail, horizontal, for cable clamping
– Hinged part with 25 mm pitch pattern of holes in the front and rear frame, and two 482.6 mm (19") mounting angles at the front, infinitely depth-variable
– 4 wall mounting brackets 10 mm
– Designer glazed door
– 1 double-kit key no. 5

Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL



with punched rails and mounting angles, depth-variable

Units U	Packs of	6	9	12	15	21	Page
Width (B1) mm		600	600	600	600	600	
Height (H1) mm		345	478	612	746	1012	
Depth (T1) mm		473	473	473	473	473	
Clearance width (B2) mm		502	502	502	502	502	
Clearance height (H2) mm		282	415	549	683	949	
Depth of wall section (T2) mm		135	135	135	135	135	
Depth of hinged part (T3) mm		316	316	316	316	316	
Max. installation depth (T4) mm		420	420	420	420	420	
Load capacity of hinged part (static) N		300	450	600	750	750	
Model No.	1 pc(s).	**7706.135**	**7709.135**	**7712.135**	**7715.135**	**7721.135**	
Product-specific scope of supply							
Mini-comfort handle for lock inserts	1 pc(s).	■	■	■	■	–	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	
Comfort handle for lock inserts and 2-point locking	1 pc(s).	–	–	–	–	■	
Accessories							
Gland plate with brush insert	1 pc(s).	7705.035	7705.035	7705.035	7705.035	7705.035	1055
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	1054
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	7113.000	1036
Component shelf 2 U, static installation		see page	see page	see page	see page	see page	1010
Cable management panel	1 pc(s).	7257.200	7257.200	7257.200	7257.200	7257.200	1072
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	1097
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	1010

Wall-mounted enclosures EL, 3-part

System accessories Page 877 **Socket strips** Page 1040 **Wall mounting bracket** Page 958 **Cable clamps** Page 1060

Wall-mounted enclosure with optimum accessibility due to hinged part.

Material:
– Wall and hinged part: Sheet steel, 1.5 mm
– Viewing window: Single-pane safety glass, 3 mm

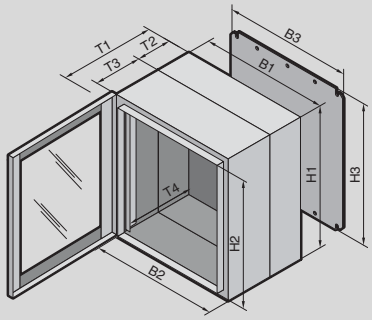
Surface finish:
– Powder-coated

Colour:
– Wall and hinged part: RAL 7035
– Glazed door: RAL 7035/7015 (slate grey)

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Wall section with solid gland plate, top and bottom and mounting plate (supplied loose).
– Hinged part with 25 mm pitch pattern of holes in the front and rear frame, and two 482.6 mm (19") mounting angles, front, static installation
– Designer glazed door
– 1 double-kit key no. 5
Please observe the product-specific scope of supply.

Approvals:
– UL
– cUL



with mounting plate and mounting angles, static installation

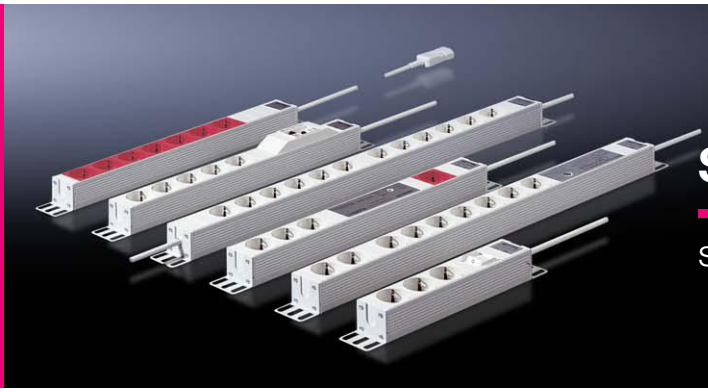
Units U	Packs of	3	3	6	6	9	9	Page
Width (B1) mm		600	600	600	600	600	600	
Height (H1) mm		212	212	345	345	478	478	
Depth (T1) mm		373	473	373	473	373	473	
Clearance width (B2) mm		502	502	502	502	502	502	
Clearance height (H2) mm		149	149	282	282	415	415	
Depth of wall section (T2) mm		135	135	135	135	135	135	
Depth of hinged part (T3) mm		216	316	216	316	216	316	
Max. installation depth (T4) mm		320	420	320	420	320	420	
Mounting plate width (B3) mm		485	485	485	485	485	485	
Mounting plate height (H3) mm		165	165	299	299	432	432	
Load capacity of hinged part (static) N		150	150	300	300	450	450	
Model No.	1 pc(s).	**2243.605**	**2253.605**	**2246.605**	**2256.605**	**2249.605**	**2259.605**	
Product-specific scope of supply								
Mini-comfort handle for lock inserts	1 pc(s).	■	■	■	■	■	■	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	■	
Accessories								
Gland plate with brush insert	1 pc(s).	7705.035	7705.035	7705.035	7705.035	7705.035	7705.035	1055
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	1054
Wall mounting bracket		see page	see page	see page	see page	see page	see page	966
Component shelf 2 U, static installation		–	see page	–	see page	–	see page	1010
Blanking plate, 482.6 mm (19")		see page	see page	see page	see page	see page	see page	1092
Lock insert		see page	see page	see page	see page	see page	see page	941
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	1097
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	5501.635	1010

Wall-mounted enclosures EL, 3-part

with mounting plate and mounting angles, static installation

Units U	Packs of	12	12	15	15	21	21	Page
Width (B1) mm		600	600	600	600	600	600	
Height (H1) mm		612	612	746	746	1012	1012	
Depth (T1) mm		373	473	373	473	373	473	
Clearance width (B2) mm		502	502	502	502	502	502	
Clearance height (H2) mm		549	549	683	683	949	949	
Depth of wall section (T2) mm		135	135	135	135	135	135	
Depth of hinged part (T3) mm		216	316	216	316	216	316	
Max. installation depth (T4) mm		320	420	320	420	320	420	
Mounting plate width (B3) mm		485	485	485	485	485	485	
Mounting plate height (H3) mm		565	565	699	699	965	965	
Load capacity of hinged part (static) N		600	600	750	750	750	750	
Model No.	1 pc(s).	**2252.605**	**2262.605**	**2255.605**	**2265.605**	**2261.605**	**2271.605**	
Product-specific scope of supply								
Mini-comfort handle for lock inserts	1 pc(s).	■	■	■	■	–	–	
Security lock 3524 E	1 pc(s).	■	■	■	■	■	■	
Comfort handle for lock inserts and 2-point locking	1 pc(s).	–	–	–	–	■	■	
Accessories								
Gland plate with brush insert	1 pc(s).	7705.035	7705.035	7705.035	7705.035	7705.035	7705.035	1055
Gland plate for metric cable glands	1 pc(s).	7705.235	7705.235	7705.235	7705.235	7705.235	7705.235	1054
Wall mounting bracket		see page	see page	see page	see page	see page	see page	967
Component shelf 2 U, static installation		–	see page	–	see page	–	see page	1010
Blanking plate, 482.6 mm (19")		see page	see page	see page	see page	see page	see page	1092
Lock insert		see page	see page	see page	see page	see page	see page	941
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	2090.000	2090.000	1097
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	5501.635	5501.635	1010

Rittal – The System.



Socket strips

see page 1040

Wall-mounted enclosures AX IT

System accessories Page 877 **Socket strips** Page 1040 **Captive nuts** Page 1002 **Glazed doors** Page 926

IT wall-mounted enclosure based on AX, with high protection category, for use in industrial environments.

Applications:
- IT enclosure for use in industrial environments
- Secure, protected integration of IT directly into your production plant processes

Benefits:
- Fully pre-assembled IT enclosure for immediate accommodation of 482.6 mm (19") IT components, with depth-variable mounting angles
- Welded enclosure construction with all-round solid body ensures maximum protection for installed components, up to IP 66
- Door hinged on the right, may be swapped to the left
- Maximum usable interior volume with an extremely compact design
- Individual interior configuration
- Maximum cut-out in the enclosure base with optimised gland plates increases the space for cable routing by up to 33%
- Convenient cable entry from below via a gland plate with integral brush strip

Installation options:
- Pre-configured mounting bracket including C rail for cable clamping
- Mounting bracket to accommodate a central earth rail
- Mounting bracket for mounting a 482.6 mm (19") socket strip

Material:
- Sheet steel

Surface finish:
- Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
- Interior installation: Zinc-plated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 10 (up to IP 66 on request)
- Up to IP 66 (depending on the selected gland pate)

Supply includes:
- Pre-assembled IT enclosure with hinged door, of all-round solid construction
- Cam lock with 3 mm double-bit insert
- Gland plate with brush strip
- 482.6 mm (19") mounting angle, front, mounted onto four interior installation rails with depth adjustment in 25 mm pitch pattern
- Mounting bracket
- C rail, fastened to the rear panel

Note:
- Variant with UL approval available on request

with 482.6 mm (19") mounting angles, depth-variable

Units U	Packs of	7	12	15	15	Page
Width mm		600	600	600	600	
Height mm		380	600	760	800	
Depth mm		350	350	350	400	
Max. installation depth mm		278	278	278	316	
Cam locks		1	2	2	2	
Model No.	1 pc(s).	**7641.350**	**7643.350**	**7645.350**	**7646.400**	
Gland plate, size		7	7	7	7	
Gland plate, qty.		1	1	1	1	
Accessories						
Wall angle	4 pc(s).	2505.510	2505.510	2505.510	2505.510	967
Wall mounting bracket		see page	see page	see page	see page	967
Plastic gland plate	1 pc(s).	2567.200	2567.200	2567.200	2567.200	1050
Metal gland plate	1 pc(s).	2577.100	2577.100	2577.100	2577.100	1053
Plastic gland plate	1 pc(s).	2567.300	2567.300	2567.300	2567.300	1052
Component shelf, pull-out, 2 U	1 pc(s).	5501.635	5501.635	5501.635	5501.635	1010
Earth rail, horizontal	1 pc(s).	7113.000	7113.000	7113.000	7113.000	1036
Mini-comfort handle AX	1 pc(s).	2537.100	2537.100	2537.100	2537.100	940
482.6 mm (19") fastener, 1 U	24 pc(s).	2090.000	2090.000	2090.000	2090.000	1097
Cable management panel	1 pc(s).	5502.205	5502.205	5502.205	5502.205	1072
Cable management panel with brush strip	1 pc(s).	5302.202	5302.202	5302.202	5302.202	1074

Small fibre-optic distributor

System accessories Page 877

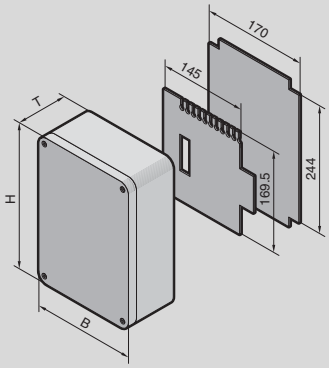
Benefits:
- Mounting plate with variable accommodation for up to two splicing cassettes (cassette width variable from 92 to 120 mm) and integral anti-twist guard
- Dividing plate with comb strip for cable clamping, to cover the splicing cassette, and to accommodate 2 patch panels
- Cable entry via prepunched knockouts using cable glands (2 x 22.5 mm and 12 x 12.5 mm)

Material:
- Enclosure with cover: Fibreglass-reinforced polycarbonate
- Cover screws: Polyamide
- Insulating bungs: Polyamide
- Foamed-in PU seal

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 66

Supply includes:
- Enclosure with knockouts for cable glands
- Hinged cover with seal
- 2 cover screws, prepared for a lead seal
- Insulating bungs for wall mounting
- Mounting plate
- Dividing plate
- 12 cable glands M12 x 1.5
- 1 cable gland M20 x 1.5



with mounting plate and splicing cassette accommodation

Width (B) mm	Packs of	180	Page
Height (H) mm		254	
Depth (T) mm		90	
Maximum number of fibres (when using patch panels)		24	
Model No.	1 pc(s).	**7451.000**	
Accessories			
Patch panels for small fibre-optic distributors		see page	1101
Wall mounting bracket	40 pc(s).	9583.000	47

Network rack TE 8000

A comprehensive range of accessories for individual interior installation, see page 877

Rittal – The System.

Faster – better – everywhere.

IT power

VX25 Ri4Power
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PDU/modular PDU (PSM)
Accessories 751

Upgrade solution
RCM measurement module – Inline meter 753
Overvoltage protection module, type 3 754

Your benefits
- Holistic, systematic energy management concepts
- Comprehensive, complete solutions for power distribution and back-up, consistently modular, and flexibly extendible at any time
- Optimum energy and cost efficiency with maximum availability of the entire system
- Reduced installation, administration and resource costs
- High level of investment security
- All from a single source

Sample applications
1 Power distribution, see page 724
2 UPS (partner product), see page 726
3 Power Distribution Rack PDR, see page 728
4 Power Distribution Unit PDU, see page 742

VX25 Ri4Power

The reliable mains infeed for supplying power to data centres

Low-voltage power distribution for data centres

- The VX25 Ri4Power is suitable for use with open and compact circuit-breakers from all well-known manufacturers.
- The busbar systems are dimensioned to your specific requirements with standard copper bars up to 6300 A and individually configured.
- This allows you to achieve a range of infeed sources for data centres (A and B supply) and to connect emergency generators and UPS systems.
- Automatic transfer switches (ATS) may be used to switch between different infeed sources.

Tailored power distribution

- Power supply to individual areas (e.g. server zone, plant room) is implemented in the outgoing section.
- Individual functional spaces, shielded from one another, are created within the outgoing section.
- Each outgoing section can be tailored to your specific requirements and individually populated e.g. with switchgear.
- May also be contacted directly with the multi-terminal busbar systems in data centres using a flexible busbar system.

Simple, efficient planning

- The Rittal Power Engineering planning software makes it much easier to configure section types and equipment. The connector kits are automatically generated and documented when this software is used for project planning.
- Installation of the operating equipment in low-voltage switchgear complies with IEC 61 439 and documented with a design verification. Once the system has been planned with Rittal Power Engineering, the design verification is easily generated.

UPS systems

The ideal power back-up solution for data centres

UPS systems from ABB/Rittal

- Critical loads need to be protected by online double conversion UPS systems. The UPS systems from ABB provide optimum availability and total cost of ownership (TCO), and are based on a complete redundancy concept.
- In the modular UPS series, each UPS module has all the hardware and software needed for autonomous operation. All critical components are available in each individual module, thereby eliminating weak points altogether. This modular approach is known as DPA™ (decentralised parallel architecture).

UPS systems for every application

- The DPA UPScale RI is one of the most compact uninterruptible power supply systems on the market. It can be installed directly into the 482.6 mm (19˝ level) of the rack and is therefore particularly ideal for customer-specific solutions. DPA UPScale RI is designed for applications in the lower and medium output range with 10kW or 20 kW modules and an overall output of between 10 kW and 80 kW per system.
- Conceptpower DPA S4 is a double conversion UPS system for applications in the medium to high output range. The modular architecture of Conceptpower DPA allows a flexible output configuration with 50 kVA rack-mounted modules, which may be retrofitted to meet a rising power demand. This enables implementation of rack-mounted modular and monoblock systems with an output of up to 3 MW.
- With an efficiency of 97.4% in online double conversion mode, this is one of the most advanced systems available on the marketplace.

Communicate easily

- In line with IEC/EN 62040-3, the double conversion UPS meets all the requirements for category VFI-SS-111.
- For connecting the UPS to the network with the option of linking additional sensors and I/O options, either directly on the card or via a sensor manager. HTTP, SNMP, SMTP, Modbus RS232 and Modbus TCP protocols are supported.

Power Distribution Rack

Targeted power distribution in the data centre

Power distribution module in the 482.6 mm (19˝) format

- Power distribution between the UPS and rack PDU or PSM in a compact 482.6 mm (19˝) form factor for installation within the IT rack
- Ideal for small data centres and individual rack installations
- Four fused 3-phase outlets to the rack
- Independent fusing of each phase and each output
- Built-in master switch
- All outputs plug-type
- Optional RC circuit-breaker

Power distribution for the rack suite

- Compact PDR for installation within the rack suite with a width of just 300 mm
- Seamless integration into a rack suite with VX IT rack
- Additional equipment may optionally be connected whilst operational
- Optional current measurement system
- Prepared for project-specific design
- Ideal for applications in the IT container

Flexible power distribution

- Installation as either a room or rack solution
- Project-specific selection of peripheral conditions such as rack type and form, ACB type and options ensures flexibility
- Compact design

Power Distribution Unit

Demand-based power distribution in the IT rack

The convincing benefits

- The compact design and tool-free clip fastening onto the 482.6 mm (19″) frame in Rittal IT racks allows simple installation in the zero-U-space, guaranteeing free access to the 482.6 mm (19″) level – a major advantage when retrofitting IT equipment with the system operational.
- The PDU has every application covered with just five variants
  – Basic (simple power distribution)
  – Metered (measurement per phase)
  – Metered Plus (measurement per output slot
  – Switched (measurement per phase, switching function per output)
  – Managed (measurement and switching per output)
- The fully redundant Gigabit network interface for connection to management systems such as RiZone allows cascading of up to 16 PDUs.

Technical perfection

- Key monitoring functions (alarm relay, digital input and alarm signal generator) are pre-integrated into the PDU, and up to 8 sensors are supported.
- Extended measuring functions such as fault current monitoring (RCM type B) are available.
- The modular concept means that the PDU controller board and overvoltage protection are replaceable.
- The reliable bistable relays allow up to 300 A starting current on all switchable PDUs.
- Optional integrated surge protection with arresters, which can be replaced with the system operational.

Configure your individual solution online

- The PDU's modular system concept allows individual configuration and optimum adaptation to your specific application. For example, you choose the colour of the housing, the length of the cable, the connector plug or the position of the display yourself.
- Rittal can provide further configuration options, e.g. changing the output slots, adding features such as fault current monitoring and overvoltage protection. Please call us to discuss your individual configuration.

Power Distribution Unit

Overview Page 737 **Network/server racks VX IT** Page 686

Benefits:
- With the compact PDU, any IT rack is easily equipped with a professional power distribution system
- With the VX IT rack, assembly is tool-free
- Compact design
- Easy to install, even in the zero-U-space
- Power-saving design with minimal inherent consumption by the PDU itself, thanks to the use of bistable relays and durable TFT colour display with power-saving function
- Integral Web server for direct network connection with extensive user administration functions
- Redundant power supply from all 3 phases and additionally via an existing PoE (Power over Ethernet) network
- Extensive range of management and monitoring functions
- High-MTBF and measurement accuracy of ±1%
- Redundant network interface, may also be used for cascading up to 16 PDUs (not with PDU basic)
- Electric handle systems and ambient monitoring with up to 8 CMC III sensors (temperature, humidity, access, vandalism)
- 2 x Gigabit Ethernet interfaces for fully redundant network connection
- PDU controller may be replaced without having to disconnect the PDU from the power supply

PDU design variants:
PDU basic
Robust, compact basic power distributor for the IT environment

PDU metered
Energy measurement per phase, i.e. output requirement of an entire IT rack

PDU metered plus
Energy measurement per output connector, to determine the power requirements of individual consumers

PDU switched
Measurement function per phase and individually switchable output slots

PDU managed
High-end IT rack, power distribution with energy measurement and monitoring functions for each individual output slot

Material:
- Extruded aluminium section, anodised

Protection category IP to IEC 60 529:
- IP 20

Supply includes:
- Connector lock for IEC C14 and C20 connectors
- Assembly parts

Standards:
- EN 62 368-1
- EN 61 000-4
- EN 61 000-6
- EN 55 022

Assembly instructions:
- For mounting in the TE 8000 rack, mounting adaptor 7000.688 is additionally required

Low Voltage Directive:
- 2014/35/EU

EMC directive:
- 2014/30/EU

PDU, basic version

Power			Slots/slot type				Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs IEC C13	Outputs IEC C19	Outputs Earthing-pin	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT (zero U) 482.6 mm (19") mounting angles	
1~	16	3.7	IEC C20	8	–	–	–	–	450 (19"/1 U)	800	800	**7979.102**
1~	16	3.7	CEE	–	–	8	–	–	450 (19"/1 U)	800	800	**7979.103**
1~	32	7.4	CEE	4	2	–	–	–	450 (19"/1 U)	800	800	**7979.104**
1~	16	3.7	CEE	12	1	–	–	–	695	1200	1200	**7979.110**
1~	16	3.7	CEE	–	–	10	–	–	695	1200	1200	**7979.111**
1~	32	7.4	CEE	16	2	–	–	–	845	1200	1200	**7979.112**
1~	32	7.4	CEE	12	4	–	–	–	845	1200	1200	**7979.113**
1~	32	7.4	CEE	–	–	16	–	–	1095	1200	1800	**7979.114**
1~	16	3.7	CEE	24	4	–	–	–	1095	1200	1800	**7979.115**
1~	32	7.4	CEE	24	4	–	–	–	1295	1800	1800	**7979.116**
3~	16	11	CEE	–	9	–	–	–	695	1200	1200	**7979.130**
3~	32	22	CEE	–	12	–	–	–	1095	1200	1800	**7979.131**
3~	16	11	CEE	6	6	–	–	–	695	1200	1200	**7979.132**
3~	16	11	CEE	–	–	18	–	–	1095	1200	1800	**7979.133**
3~	32	22	CEE	–	–	24	–	–	1695	1800	2000	**7979.134**
3~	16	11	CEE	18	3	–	–	–	845	1200	1200	**7979.135**
3~	16	11	CEE	24	6	–	–	–	1095	1200	1800	**7979.136**
3~	32	22	CEE	24	6	–	–	–	1495	1800	1800	**7979.137**
3~	16	11	CEE	18	12	–	–	–	1295	1800	1800	**7979.138**
3~	32	22	CEE	12	12	–	–	–	1495	1800	1800	**7979.139**
3~	16	11	CEE	36	6	–	–	–	1495	1800	1800	**7979.140**
3~	32	22	CEE	36	6	–	–	–	1895	2000	2200	**7979.141**
3~	16	11	CEE	42	–	–	–	–	1495	1800	1800	**7979.142**
3~	32	22	CEE	48	–	–	–	–	1895	2000	2200	**7979.143**

PDU, metered version

Power			Slots/slot type				Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs IEC C13	Outputs IEC C19	Outputs Earthing-pin	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT (zero U) 482.6 mm (19") mounting angles	
1~	16	3.7	IEC C20	6	–	–	per phase	–	450 (19"/1 U)	800	800	**7979.202**
1~	16	3.7	CEE	–	–	4	per phase	–	450 (19"/1 U)	800	800	**7979.203**
1~	32	7.4	CEE	4	2	–	per phase	–	450 (19"/1 U)	800	800	**7979.204**
1~	16	3.7	CEE	12	1	–	per phase	–	845	1200	1200	**7979.210**
1~	16	3.7	CEE	–	–	10	per phase	–	1095	1200	1800	**7979.211**
1~	32	7.4	CEE	16	2	–	per phase	–	1095	1200	1800	**7979.212**
1~	32	7.4	CEE	12	4	–	per phase	–	1095	1200	1800	**7979.213**
1~	32	7.4	CEE	–	–	16	per phase	–	1295	1800	1800	**7979.214**
1~	16	3.7	CEE	24	4	–	per phase	–	1295	1800	1800	**7979.215**
1~	32	7.4	CEE	24	4	–	per phase	–	1495	1800	1800	**7979.216**
3~	16	11	CEE	–	9	–	per phase	–	845	1200	1200	**7979.230**
3~	32	22	CEE	–	12	–	per phase	–	1495	1800	1800	**7979.231**
3~	16	11	CEE	6	6	–	per phase	–	1095	1200	1800	**7979.232**
3~	16	11	CEE	–	–	18	per phase	–	1495	1800	1800	**7979.233**
3~	32	22	CEE	–	–	24	per phase	–	1895	2000	2200	**7979.234**
3~	16	11	CEE	18	3	–	per phase	–	1095	1200	1800	**7979.235**
3~	16	11	CEE	24	6	–	per phase	–	1495	1800	1800	**7979.236**
3~	32	22	CEE	24	6	–	per phase	–	1740	2000	2000	**7979.237**
3~	16	11	CEE	18	12	–	per phase	–	1695	1800	2000	**7979.238**
3~	32	22	CEE	12	12	–	per phase	–	1695	1800	2000	**7979.239**
3~	16	11	CEE	36	6	–	per phase	–	1895	2000	2200	**7979.240**
3~	16	11	CEE	42	–	–	per phase	–	1695	1800	2000	**7979.242**

Power Distribution Unit

PDU, metered plus version

Power			Slots/slot type				Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs IEC C13	Outputs IEC C19	Outputs Earthing-pin	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT (zero U) 482.6 mm (19") mounting angles	
1~	16	3.7	IEC C20	6	–	–	per output	–	450 (19"/1 U)	800	800	**7979.502**
1~	16	3.7	CEE	–	–	4	per output	–	450 (19"/1 U)	800	800	**7979.503**
1~	32	7.4	CEE	4	2	–	per output	–	450 (19"/1 U)	800	800	**7979.504**
1~	16	3.7	CEE	12	1	–	per output	–	845	1200	1200	**7979.510**
1~	16	3.7	CEE	–	–	10	per output	–	1095	1200	1800	**7979.511**
1~	32	7.4	CEE	16	2	–	per output	–	1095	1200	1800	**7979.512**
1~	32	7.4	CEE	12	4	–	per output	–	1095	1200	1800	**7979.513**
1~	32	7.4	CEE	–	–	16	per output	–	1495	1800	1800	**7979.514**
1~	16	3.7	CEE	24	4	–	per output	–	1295	1800	1800	**7979.515**
1~	32	7.4	CEE	24	4	–	per output	–	1495	1800	1800	**7979.516**
3~	16	11	CEE	–	9	–	per output	–	845	1200	1200	**7979.530**
3~	32	22	CEE	–	12	–	per output	–	1495	1800	1800	**7979.531**
3~	16	11	CEE	6	6	–	per output	–	1095	1200	1200	**7979.532**
3~	16	11	CEE	–	–	18	per output	–	1495	1800	1800	**7979.533**
3~	32	22	CEE	–	–	24	per output	–	2095	2200	2200	**7979.534**
3~	16	11	CEE	18	3	–	per output	–	1095	1200	1800	**7979.535**
3~	16	11	CEE	24	6	–	per output	–	1495	1800	1800	**7979.536**
3~	32	22	CEE	24	6	–	per output	–	1740	2000	2000	**7979.537**
3~	16	11	CEE	18	12	–	per output	–	1695	1800	2000	**7979.538**
3~	32	22	CEE	12	12	–	per output	–	1695	1800	2000	**7979.539**
3~	16	11	CEE	36	6	–	per output	–	1895	2000	2200	**7979.540**
3~	16	11	CEE	42	–	–	per output	–	1695	1800	2000	**7979.542**

PDU, switched version

Power			Slots/slot type				Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs IEC C13	Outputs IEC C19	Outputs Earthing-pin	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT (zero U) 482.6 mm (19") mounting angles	
1~	16	3.7	IEC C20	6	–	–	per phase	■	450 (19"/1 U)	800	800	**7979.302**
1~	16	3.7	CEE	–	–	4	per phase	■	450 (19"/1 U)	800	800	**7979.303**
1~	32	7.4	CEE	4	2	–	per phase	■	450 (19"/1 U)	800	800	**7979.304**
1~	16	3.7	CEE	12	1	–	per phase	■	845	1200	1200	**7979.310**
1~	16	3.7	CEE	–	–	10	per phase	■	1095	1200	1800	**7979.311**
1~	32	7.4	CEE	16	2	–	per phase	■	1095	1200	1800	**7979.312**
1~	32	7.4	CEE	12	4	–	per phase	■	1095	1200	1800	**7979.313**
1~	32	7.4	CEE	–	–	16	per phase	■	1495	1800	1800	**7979.314**
1~	16	3.7	CEE	24	4	–	per phase	■	1295	1800	1800	**7979.315**
1~	32	7.4	CEE	24	4	–	per phase	■	1495	1800	1800	**7979.316**
3~	16	11	CEE	–	9	–	per phase	■	845	1200	1200	**7979.330**
3~	32	22	CEE	–	12	–	per phase	■	1495	1800	1800	**7979.331**
3~	16	11	CEE	6	6	–	per phase	■	1095	1200	1200	**7979.332**
3~	16	11	CEE	–	–	18	per phase	■	1495	1800	1800	**7979.333**
3~	32	22	CEE	–	–	24	per phase	■	2095	2200	2200	**7979.334**
3~	16	11	CEE	18	3	–	per phase	■	1095	1200	1800	**7979.335**
3~	16	11	CEE	24	6	–	per phase	■	1495	1800	1800	**7979.336**
3~	32	22	CEE	24	6	–	per phase	■	1740	2000	2000	**7979.337**
3~	16	11	CEE	18	12	–	per phase	■	1695	1800	2000	**7979.338**
3~	32	22	CEE	12	12	–	per phase	■	1695	1800	2000	**7979.339**
3~	16	11	CEE	36	6	–	per phase	■	1895	2000	2200	**7979.340**
3~	16	11	CEE	42	–	–	per phase	■	1695	1800	2000	**7979.342**

PDU, managed version

Power			Slots/slot type				Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs IEC C13	Outputs IEC C19	Outputs Earthing-pin	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT (zero U) 482.6 mm (19") mounting angles	
1~	16	3.7	IEC C20	6	–	–	per output	■	450 (19"/1 U)	800	800	**7979.402**
1~	16	3.7	CEE	–	–	4	per output	■	450 (19"/1 U)	800	800	**7979.403**
1~	32	7.4	CEE	4	2	–	per output	■	450 (19"/1 U)	800	800	**7979.404**
1~	16	3.7	CEE	12	1	–	per output	■	845	1200	1200	**7979.410**
1~	16	3.7	CEE	–	–	10	per output	■	1095	1200	1800	**7979.411**
1~	32	7.4	CEE	16	2	–	per output	■	1095	1200	1800	**7979.412**
1~	32	7.4	CEE	12	4	–	per output	■	1095	1200	1800	**7979.413**
1~	32	7.4	CEE	–	–	16	per output	■	1495	1800	1800	**7979.414**
1~	16	3.7	CEE	24	4	–	per output	■	1295	1800	1800	**7979.415**
1~	32	7.4	CEE	24	4	–	per output	■	1495	1800	1800	**7979.416**
3~	16	11	CEE	–	9	–	per output	■	845	1200	1200	**7979.430**
3~	32	22	CEE	–	12	–	per output	■	1495	1800	1800	**7979.431**
3~	16	11	CEE	6	6	–	per output	■	1095	1200	1200	**7979.432**
3~	16	11	CEE	–	–	18	per output	■	1495	1800	1800	**7979.433**
3~	32	22	CEE	–	–	24	per output	■	2095	2200	2200	**7979.434**
3~	16	11	CEE	18	3	–	per output	■	1095	1200	1800	**7979.435**
3~	16	11	CEE	24	6	–	per output	■	1495	1800	1800	**7979.436**
3~	32	22	CEE	24	6	–	per output	■	1740	2000	2000	**7979.437**
3~	16	11	CEE	18	12	–	per output	■	1695	1800	2000	**7979.438**
3~	32	22	CEE	12	12	–	per output	■	1695	1800	2000	**7979.439**
3~	16	11	CEE	36	6	–	per output	■	1895	2000	2200	**7979.440**
3~	16	11	CEE	42	–	–	per output	■	1695	1800	2000	**7979.442**

PDU UK, basic version

Power			Slots/slot type			Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs BS1363	Outputs IEC C19	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT 482.6 mm (19") mounting angles	
1~	13	3.0	BS1363	6	–	–	–	450 (19"/1 U)	800	800	**7979.801**
1~	13	3.0	BS1363	8	–	–	–	695	800	800	**7979.811**
1~	13	3.0	BS1363	12	–	–	–	845	1200	1200	**7979.812**
1~	13	3.0	BS1363	16	–	–	–	1095	1200	1800	**7979.813**
1~	16	3.7	CEE	16	4	–	–	1295	1800	1800	**7979.814**
1~	32	7.4	CEE	16	4	–	–	1495	1800	1800	**7979.815**

PDU UK, metered version

Power			Slots/slot type			Function		Dimensions	PDU installed in rack/ min. rack height mm		Model No.
No. of phases	Phase current A	Output kW	Input	Outputs BS1363	Outputs IEC C19	Measuring	Switching	PDU length mm	VX IT rack frame	VX IT 482.6 mm (19") mounting angles	
1~	13	3.0	BS1363	16	–	per phase	–	1495	1800	1800	**7979.821**
1~	16	3.7	CEE	16	4	per phase	–	1695	1800	2000	**7979.822**
1~	32	7.4	CEE	16	4	per phase	–	1695	1800	2000	**7979.823**

Power Distribution Unit

Overvoltage protection modules, with replaceable arresters and alarm contact

Overvoltage protection module type 3	Type of connection	Connection cable/length	Phases	Phase current A	Output kW	Packs of	**Model No.**	Page
Design	CEE connector/coupling	H05VV-F3G2.5, 1 m	1~	16	3.7	1 pc(s).	**7979.721**	754
Design	CEE connector/coupling	H05VV-F3G4.0, 1 m	1~	32	7.4	1 pc(s).	**7979.722**	754
Design	CEE connector/coupling	H05VV-F5G2.5, 1 m	3~	16	11.0	1 pc(s).	**7979.723**	754
Design	CEE connector/coupling	H05VV-F5G4.0, 1 m	3~	32	22.0	1 pc(s).	**7979.724**	754

PDU accessories

	Packs of	**Model No.**	Page
Slot cover for C13 jack, lockable	10 pc(s).	**7955.010**	752
Slot cover for C19 jack, lockable	10 pc(s).	**7955.015**	752
Connector lock for C14/C20 connector	20 pc(s).	**7979.020**	752
PDU mounting adaptor for TE 7000/TE 8000	2 pc(s).	**7000.688**	752
PDU accessory pack	1 pc(s).	**7979.001**	

CMC III/PDU sensors

CMC III/PDU sensor type	Packs of	**Model No.**	Page
Temperature sensor	1 pc(s).	**7030.110**	807
Temperature/humidity sensor (combi-sensor)	1 pc(s).	**7030.111**	807
Infrared access sensor	1 pc(s).	**7030.120**	807
Vandalism sensor	1 pc(s).	**7030.130**	807
Analogue airflow sensor	1 pc(s).	**7030.140**	807
Analogue differential pressure sensor	1 pc(s).	**7030.150**	807
Universal sensor (digital inputs)	1 pc(s).	**7030.190**	807
Smoke detector	1 pc(s).	**7030.400**	807
Leak sensor	1 pc(s).	**7030.430**	807
Leak sensor, 15 m	1 pc(s).	**7030.440**	807
CMC III CAN bus connection cable RJ 45 (length: 0.5 m, 1x required for each sensor)	1 pc(s).	**7030.090**[1)]	818
CMC III CAN bus connection cable RJ 45 (length: 1.0 m, 1x required for each sensor)	1 pc(s).	**7030.091**[1)]	818
CMC III CAN bus connection cable RJ 45 (length: 1.5 m, 1x required for each sensor)	1 pc(s).	**7030.092**[1)]	818
CMC III CAN bus connection cable RJ 45 (length: 2.0 m, 1x required for each sensor)	1 pc(s).	**7030.093**[1)]	818

[1)] Other cable lengths may be found under CMC III accessories on page 818

VX IT handle system

VX IT handle system (2 handles may be connected per PDU)	Packs of	**Model No.**	Page
CMC III online comfort handle VX	1 pc(s).	**7030.611**	814
Coded lock for CMC III	1 pc(s).	**7030.223**	813
Transponder reader for CMC III	1 pc(s).	**7030.233**	813
CMC III Access Control (1x required for each handle system)	1 pc(s).	**7030.202**	812

Overview

PDU version[1]	managed	switched	metered plus	metered	basic

Mechanical	managed	switched	metered plus	metered	basic
Compact extruded aluminium section, black anodised (other enclosure colours optionally available), W x D: 1 U x 70 mm, various lengths depending on number of slots	■	■	■	■	■
May be fitted in the the zero-U-space in the 600 mm wide Rittal IT rack, (2 PDUs per side, up to 4 in 800 mm wide Rittal IT racks)	■	■	■	■	■
Special PDU versions available for 482.6 mm (19") mounting	■	■	■	■	■
Colour coding of phases and fuse circuits (L1 = pink, L2 = black, L3 = white)	■	■	■	■	■
Universal mounting kit and assembly parts included with the supply	■	■	■	■	■
Tool-free installation kit especially for Rittal VX IT rack included with the supply	■	■	■	■	■
Display/controller unit in the PDU enclosure rotatable through 180° and replaceable	■	■	■	■	–
Connection cable, static, 3 m, with CEE (IEC 60 309) or IEC C20 input connector (customised modification available)	■	■	■	■	■
Compact circuit-breaker, 16 A, Carling type (only for 32 A PDU versions)	■	■	■	■	■
Output slots IEC 60 320 C13 available	■	■	■	■	■
Output slots IEC 60 320 C19 available	■	■	■	■	■
Output slots CEE 7/3 (earthing-pin socket) available	■	■	■	■	■
Output slots BS 1363 (UK plug) available	–	–	–	■	■
Connector lock for C13 and C19 sockets (optionally as accessories)	■	■	■	■	■
Lockable cover for unneeded C13/C19 slots (optional accessory)	■	■	■	■	■

Electrical	managed	switched	metered plus	metered	basic
Rated operating voltage 230 V (400 V, 3~), 50 – 60 Hz	■	■	■	■	■
PDUs for rated current 16 A/32 A, single-phase/3-phase	■	■	■	■	■
Integral, fully-redundant power pack, power supply from all phases	■	■	■	■	–
Power-saving design, minimal intrinsic power consumption	■	■	■	■	–
PDU with own power supply, no external power supply required	■	■	■	■	–
Error-tolerant PDU power supply redundant across all phases (with 3-phase PDUs)	■	■	■	■	–
Emergency power supply to PDU web server via PoE (Power over Ethernet) and sequential relay circuit (PoE+ to IEEE 802.3at), remains accessible even in the event of a mains failure	■	■	–	–	–
Optional: Type 3 overvoltage protection with interchangeable arresters while operational, with status monitoring, suitable for integration into PDU enclosure)	■	■	■	■	■
Switching function per output slot	■	■	–	–	–
Sequential activation of the outputs once the power is resumed (avoids overload peaks)	■	■	–	–	–
Relay states are saved even in the event of a power failure	■	■	–	–	–
Bistable relays/low current consumption/high switching capacity also for higher starting currents (max. 300 A)	■	■	–	–	–
Grouping (joint switching of several outputs)	■	■	–	–	–
Programmable startup response following voltage recovery (on/off/last status)	■	■	–	–	–
Programmable startup response (time and programmable logic)	■	■	–	–	–

Measurement functions	managed	switched	metered plus	metered	basic
Voltage (V), current (A), frequency (Hz)	■	■	■	■	–
Active power (kW), active energy (kWh), apparent power (VA), apparent energy (kVA)	■	■	■	■	–
Power factor (cosPhi) and phase angle	■	■	■	■	–
Neutral conductor measurement to identify unbalanced loads (3-phase PDUs only)	■	■	■	■	–
Optional: Differential current measurement (type B) per infeed/phase/fuse	■	■	■	■	–
Fuse monitoring for PDUs with integral fuse (32 A PDUs)	■	■	■	■	–
Monitoring of the optionally available overvoltage protection	■	■	■	■	–
Alarm contact for optional overvoltage protection on terminals	–	–	–	–	■
Measurement per phase or infeed	■	■	■	■	–
Measurement per output slot	■	–	■	–	–
Measurement accuracy ±1% to IEC/EN 62 053-21	■	■	■	■	–

[1] In addition to the defined products, customised modifications are also possible.

Note:

– Select plausibility-checked enclosures and components easily with the Rittal Configuration System, plan machining and place your order, see page 272

Power Distribution Unit

Overview

PDU version[1)]	managed	switched	metered plus	metered	basic

Connectivity/management functions	managed	switched	metered plus	metered	basic
Powerful CPU (ARM Cortex A8)	■	■	■	■	–
Integral real-time clock with battery buffering (max. 10 years, battery replaceable)	■	■	■	■	–
Integral piezo beeper	■	■	■	■	–
Digital input (floating contact)	■	■	■	■	–
Additional alarm output/relay output (changeover contact)	■	■	■	■	–
Bright TFT display, 128 x 128 pixels (RGB) with back-lighting and energy-saving mode (display of output data and basic PDU configuration)	■	■	■	■	–
Position sensors for display rotation and correct PDU representation on the website	■	■	■	■	–
Multi-colour LEDs (green/amber/red) to indicate switching states and warning/alarm limits per phase or infeed	■	■	■	–	–
Multi-colour LEDs (green/amber/red) to indicate switching states and limits per individual output slot	■	–	■	–	–
Power LED, indicates presence of voltage	■	■	■	■	–
Adjustable limit values (warning/alarm) for voltage, current, output	–	■	–	■	–
Adjustable limit values (warning/alarm) for current, voltage, output, individually setting for each output slot	■	–	■	–	–
Operating hours meter, total and cyclical (resettable)	■	■	■	■	–
Fully redundant Ethernet interface 10/100/1000 Mbit/s (2 x RJ45)	■	■	■	■	–
USB 2.0 port (USB-A) for mass configuration, firmware update and data logging	■	■	■	■	–
CAN bus interface (RJ 45) for a maximum of 8 ambient sensors	■	■	■	■	–
Serial interface RS232 (RJ12) for CMC III LTE unit, scripting, CLI	■	■	■	■	–
Web server (HTTP, HTTPS, SSL, SSH) Telnet, NTP	■	■	■	■	–
TCP/IP v4 and v6, DHCP, DNS	■	■	■	■	–
SNMP v1, v2c and v3, Modbus/TCP, OPC-UA	■	■	■	■	–
MIB for linking into 3rd party DCIM software	■	■	■	■	–
FTP/SFTP (update/file transfer)	■	■	■	■	–
Rest API	■	■	■	■	–
Use of own certificates/TLS 1.3	■	■	■	■	–
E-mail forwarding in case of alarm (SMTP)	■	■	■	■	–
User administration including rights management	■	■	■	■	–
LDAP(S)/Radius/Active Directory connection	■	■	■	■	–
Syslog server connection (max. 2 servers)	■	■	■	■	–
Fully redundant monitoring via 2nd network	■	■	■	■	–
CMC III CAN bus sensors may be connected for ambient monitoring (max. 8 sensors)	■	■	■	■	–
CMC III sensors: Temperature, humidity, smoke detector, VX IT handle systems, infrared access sensor, vandalism sensor, airflow, differential pressure, etc.	■	■	■	■	–

Ambient conditions	managed	switched	metered plus	metered	basic
Operating temperature	+5...+50 °C @100% load				
Storage temperature	-25 °C...+70 °C				
Ambient humidity (non-condensing)	10 – 95% rel. humidity				
Protection category (IEC 60 529)	IP 20				

Approvals and standards	managed	switched	metered plus	metered	basic
Approvals and standards	CE/EAC/RoHS/WEEE				
Low Voltage Directive	2014/35/EU				
EMC Directive	2014/30/EU				
Standards (excerpt)	EN 62 368-1/EN 62 053-21/EN 61 000-3/EN 61 000-4/ EN 61 000-6				

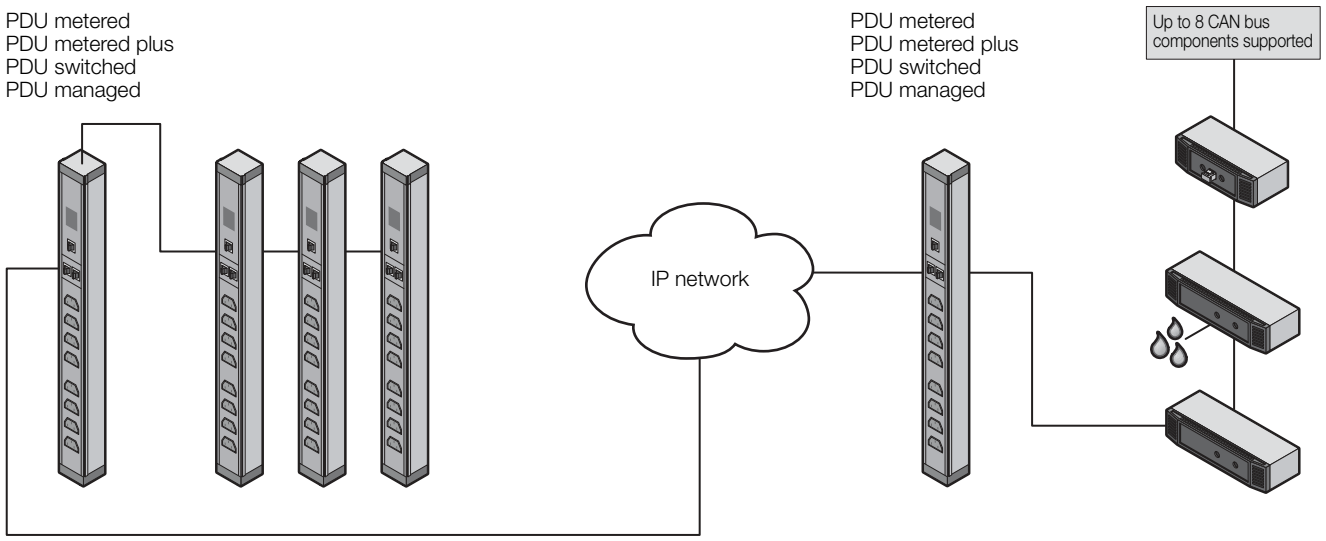
[1)] In addition to the defined products, customised modifications are also possible.

Sample application

PDU cascading
Cascading of up to 16 PDUs in series is supported via the network interface.

Master/slave operating mode
Each PDU may also be used individually as a master or slave PDU. The master PDU controls up to three slave PDUs.

Connection of CAN bus sensors
Up to 8 CMC III CAN bus sensors may be connected to one PDU for ambient monitoring (temperature, humidity, access, vandalism).



Technical specifications

Equipment		
Standards	Safety	EN 62 368-1
	EMC	EN 55 022/B, EN 61 000-4-2, EN 61 000-4-3, EN 61 000-6-2, EN 61 000-6-3
Low Voltage Directive		2014/35/EU
EMC Directive		2014/30/EU
MTBF (at 40 °C)		100,000 hours
Protection category		IP 20 (IEC 60 529)
Protection class		1
Contamination level		2
Overvoltage category		II
Environmental properties		RoHS 2 (2011/65/EU)
Storage temperature		-20 °C...+70 °C
Ambient temperatures		+5 °C...+50 °C
Ambient humidity (non-condensing)		10 – 95% rel. humidity
Connector lock C14/C20		1 x (optional additional locks 7979.020)
Covers C13		Optional 7955.010
Covers C19		Optional 7955.015

Power Distribution Unit

Technical specifications

Compact power distributor for use in IT server and network racks. Please observe the relevant product dimensions and check whether the PDU can be installed in your preferred rack. The PDU dimensions and the minimum rack height required may be found in the ordering table from page 733. The technical specifications listed below apply wholly or partially to the following PDU products:

- PDU metered (power measurement at the infeed or per phase. Without switching function)
- PDU metered plus (power measurement per individual outgoing slot. Without switching function)
- PDU switched (power measurement at the infeed or per phase. With switching function)
- PDU managed (power measurement per individual outgoing slot. With switching function)

Technical specifications apply to the following product variants:
PDU metered 7979.2XX, PDU metered plus 7979.5XX, PDU switched 7979.3XX, PDU managed 7979.4XX

Equipment		
Input voltage range (L – N)		230 V (400 V, 3~), 50 – 60 Hz
Input current		16 A/32 A (depending on product variant)
No. of phases		1 or 3 depending on product variant
PDU inherent supply		Integral long-range SMPS, error-tolerant from all phases
PDU power consumption		approx. 10 W
Redundant power supply via PoE		Yes (with PDU switched, PDU managed)
Marking of phases (3-phase PDUs only: L1, L2, L3)		Rittal Power Pink, black, white
Slots type EN 60 320/C13		Quantity depends on version
Slots type EN 60 320/C19		Quantity depends on version
No. of circuit-breakers		2 (single-phase) or 6 (3-phase) with 32 A version
Hydraulic-magnetic protective circuit-breaker		16 A (Carling)
Slots individually switchable		Yes, only for PDU switched, PDU managed (bistable relay, minimal inherent consumption)
Connector, PDU input		EN 60 309/CEE or EN 60 320-C20 (depending on product variant)
Length of connection cable		3 m
Connection cable type		H05-VV
No. of wires		3/5 (single-phase/3-phase PDU)
Cable cross-section		2.5 mm^2/4.0 mm^2 (for 16 A/32 A versions)
PDU enclosure width		44 mm (1 U)
PDU enclosure depth		70 mm
PDU enclosure height (length)		Depends on product variant
PDU material		Aluminium, anodised in RAL 9005 (black, other colours may be configured)
PDU mounting adaptor		Plastic, black
PDU mounting options		On the enclosure frame, at the side of the 482.6 mm (19") mounting frame (zero-U space) as well as on the cable route (push-button attachment)
Measurement functions (input/phase or output slot)	Values recorded (standard configuration)	Voltage (V), phase current (A), frequency (Hz), active power (kW), active energy (kWh), apparent power (VA), apparent energy, reactive power, power factor, neutral-conductor measurement / load imbalance detection, crest factor, THDU/THDI, fuse monitoring (with 32 A versions) and operating hours meter
	Acquired values (individually configurable)	Differential current measurement (RCM type B), measurement range: 0 - 100 mA AC, max. 6 measuring points per PDU supported, input per phase/per fuse
	Overvoltage protection (type 3, replaceable with the system operational)	Electronic monitoring with PDU metered, metered plus, switched, managed, with PDU basic via floating alarm contact
	Voltage measurement range	90 V – 260 V
	Voltage resolution	0.1 V
	Current measurement range	0 – 16/32 A (depending on product variant)
	Current resolution	0.1 A
	Measurement accuracy	Typ. 1%
	Freely settable limit values for warning/alarm	Yes
Operating hours meter		Yes
Display		TFT colour display, RGB 128 x 128 pixels, LED per slot (for PDU switched, PDU managed)
Network interface		2 x RJ45, 10/100/1000 Mbit/s
Supported protocols		TCP/IP v4 and v6, HTTP, HTTPS, SSL, SSH, NTP, Telnet, DHCP, DNS, NTP, Syslog, SNMP v1, v2c and v3, XML, FTP/SFTP (update/file transfer), e-mail forwarding (SMTP), OPC-UA server, Modbus/TCP
User administration including rights management		Yes
LDAP(S)/Radius/Active Directory connection		Yes
Interfaces		
USB port for firmware update, data logging function, mass configuration		Yes
Serial interface		RS232 (RJ12) for LTE unit, scripting, CLI
Digital input		Floating contact
Alarm (acoustic)		Piezo beeper
CAN bus interface		RJ45, for connecting sensors
CAN sensor types		Temperature, temperature/humidity (combined), infrared access sensor, vandalism sensor, handle systems (except wireless) and automatic door opening
Max. number of sensors per PDU		8 sensor configuration freely selectable
Plug & play drivers in the Rittal RiZone DCIM software		Yes
Conformity		CE, EAC

We reserve the right to make technical modifications

Power Distribution Unit

Ambient monitoring with up to 8 CMC III sensors,
see page 730

Modular Power Distribution Unit

Flexible power distribution in IT racks

Maximum efficiency

- A modern PDU (PSM) allows you to respond flexibly at any time to changing requirements for the IT power supply in the server rack, even years later. You can change the slot configuration of the modular PDU (PSM) at any time, and even add completely new functions, without having to interrupt the power supply to the IT rack.
- The vertical, contactless busbar as the basic equipment for any IT rack permits a high degree of flexibility with versatile, plug-in modules with different socket types that may be exchanged while the system is operational.
- Patented plug & play system for exchanging modules while operational. In redundant systems, the circuit is changed by simply rotating the module.

Monitor, control and switch

- Power measurement and switching functions for the output slots can be added to any busbar with these plug-in modules. The modules are also suitable for upgrading existing installations if it becomes necessary to record the power data or add a switching option for the connected equipment.
- The outgoing slots may be switched individually and in groups, with the status for each slot indicated by an LED.
- Voltage, current and active power limits may be configured to suit your requirements. This supports the implementation of ISO 50001 and EN 600-2-2.

Impressive functions

- Extensive power measurement and switching functions for each output slot, both individually and in groups
- Easily integrated into the CMC III monitoring system
- Single-phase or 3-phase infeed, up to 22 kW per PSM busbar
- All standard protocols supported in conjunction with CMC III

Modular busbars

PSM busbars and PSM socket modules

PSM busbars
The modular system facilitates basic configuration of the racks, thanks to a vertical support rail with single-/3-phase infeed. The various socket modules to supply the active components may be snap-fitted into the support rail. This can even be done whilst the system is operational, because the support section is shock hazard-protected.

PSM socket modules
The various modules, earthing pins, IEC 60 320 etc. may be inserted into the support rail in any combination. This is easily achieved, even by non-electricians, thanks to the shock hazard protected plug & play system.

Approvals:
Available on the Internet

Technical specifications/benefits:
- Each socket module picks off a phase on the support rail, either from infeed **A** or from the redundant infeed **B**, depending on the direction of connection
- Single-/3-phase construction with a maximum current of 2 x (3 x 16 A)
- 3-phase redundant infeed supported
- The redundant circuit is completely separate from the 3 phases of the support rail
- Modules may be retrofitted whilst operational
- Modules may be equipped with integral overcurrent protection, so that only the affected module is deactivated in the event of an excessively high current; the other modules remain operational
- Overvoltage protection may be integrated into the supply line
- Various modules also available with current measurement and switchable outputs

PSM busbar

	Model No.				
Equipment	**7856.005**	**7856.006**	**7856.008**	**7856.010**	**7856.020**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Minimum height of rack	2000 mm	2000 mm	2200 mm	1200 mm	2000 mm
Type of connection/length	fixed/3 m	fixed/3 m	WAGO jack	WAGO jack	WAGO jack
Connector	CEE	CEE	X-COM	X-COM	X-COM
No. of infeeds	1	2	2	2	2
No. of phases	3	3	3	3	3
Phase current	16 A	16 A	16 A	16 A	16 A
Various connection cables, also for single-phase connection	–	–	■	■	■
No. of PSM module slots	7	7	8	4	7
Integral energy measurement of voltage, current, active power, apparent power, active energy, power factor, mains frequency	–	–	–	–	–
Measurement accuracy (U, I, f, P, S)	–	–	–	–	–
Measurement accuracy (E/kWh)	–	–	–	–	–
Graphic display for visualising the measurements (24 V DC required)	–	–	–	–	–
CAN bus interface for connecting to CMC III system	–	–	–	–	–
Web server (IPv4, IPv6, SNMP, SSH) via CMC III (PU 7030.000/PU Compact 7030.010)	–	–	–	–	–
E-mail forwarding of exceeded limits and alarms (CMC III required)	–	–	–	–	–
Operating temperature	+5 °C...+45 °C				
Ambient humidity (non-condensing)	10 – 90%				
Protection category IP (to IEC 60 529)	IP 20				
Approvals	CE	CE	CE	CE	CE

	Model No.			
Equipment	**7856.321**	**7856.323**	**7859.050**	**7859.053**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Minimum height of rack	2000 mm	2000 mm	2000 mm	2000 mm
Type of connection/length	fixed/3 m	fixed/3 m	WAGO jack	fixed/3 m
Connector	CEE	CEE	X-COM	CEE
No. of infeeds	1	1	2	1
No. of phases	1	3	3	1
Phase current	32 A	32 A	16 A	32 A
Various connection cables, also for single-phase connection	–	–	■	–
No. of PSM module slots	6	6	6	6
Integral energy measurement of voltage, current, active power, apparent power, active energy, power factor, mains frequency	–	–	■	■
Measurement accuracy (U, I, f, P, S)	–	–	2%	2%
Measurement accuracy (E/kWh)	–	–	1%	1%
Graphic display for visualising the measurements (24 V DC required)	–	–	■	■
CAN bus interface for connecting to CMC III system	–	–	■	■
Web server (IPv4, IPv6, SNMP, SSH) via CMC III (PU 7030.000/PU Compact 7030.010)	–	–	■	■
E-mail forwarding of exceeded limits and alarms (CMC III required)	–	–	■	■
Operating temperature	+5 °C...+45 °C			
Ambient humidity (non-condensing)	10 – 90%			
Protection category IP (to IEC 60 529)	IP 20			
Approvals	CE	CE	CE	CE

Also required:

– PSM socket modules, see page 748

Accessories:

– Mounting kit for PSM busbars, see page 751
– Connection cables, see page 751
– Cable lock, see page 752
– Overvoltage protection, see page 751

Modular busbars

PSM zero-U space

Modular PDU for space-saving integration in the zero-U space between side panel and 482.6 mm (19") mounting level in 800 mm wide IT racks.

	Model No.		
Equipment	**7859.080**	**7859.081**	**7859.090**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).
Minimum height of rack	2000 mm	2000 mm	2000 mm
Length	1695 mm	1695 mm	1695 mm
Type of connection/length	WAGO jack	fixed/3 m	fixed/3 m
Connector	X-COM	CEE	CEE
No. of infeeds	2	1	1
No. of phases	3	3	1
Phase current	16 A	16 A	32 A
Various connection cables, also for single-phase connection	■	–	–
No. of PSM module slots	6	6	5
Operating temperature	+5 °C...+45 °C		
Ambient humidity (non-condensing)	10 – 90%		
Protection category IP (to IEC 60 529)	IP 20		
Approvals	CE	CE	CE

Also required:

- PSM socket modules, see page 748
- Mounting kit for PSM busbars 7859.065, see page 751

Accessories:

- Connection cables, see page 751
- Cable lock, see page 752
- Overvoltage protection, see page 751

PSM measurement bar for CMC III

Measurement bars for direct connection to the CMC III system. With a PSM mounting kit, the measurement bar may be vertically mounted in 2000 mm high VX IT racks. Display and monitoring of all major output parameters is supported, separated by phase and infeed. An integral display provides a local on-site display in the rack. Remote administration and network connectivity are created via the CMC III system.

Benefits:
- Modular extendible system
- For 16 A and 32 A phase current
- Various PSM connection modules (pin patterns)
- PSM modules may be connected with the system operational
- Easy to assemble
- CAN bus for connection to CMC III system
- Extensive management and monitoring monitoring functions (via CMC III)
- High-MTBF and measurement accuracy of 1 %
- Energy-efficient electric design – minimal inherent power consumption
- High-quality aluminium housing, for flexible mounting

Measurement functions:
- Voltage (V), current (A), frequency (Hz)
- Active power (kW), active energy (kWh), apparent power (VA), apparent energy (kVAh)
- Power factor (cos phi)
- Zero conductor current measurement/ load imbalance detection
- Measurement per phase or infeed
- Measurement accuracy 1% (kWh) to IEC 62 053-21

Material:
- Extruded aluminium section, anodised

Protection category IP to IEC 60 529:
- IP 20

Standards:
- EN 61 000-6-1
- EN 61 000-6-2
- EN 55 022

Low Voltage Directive:
- 2014/35/EU

EMC directive:
- 2014/30/EU

Approvals:
Available on the Internet

Photo shows a configuration example with equipment not included in the scope of supply

Model No.	**7859.050**	**7859.053**	Page
Packs of	1 pc(s).	1 pc(s).	
Version/rated current (per phase)	16 A	32 A	
No. of infeeds (3-phase, 16 A/single-phase, 32 A)	2	1	
Connection cable, plug-in, various configurations	■	–	
Connection cable, fixed, 3 m, with CEE connector, 32 A, single-phase (IEC 60 309)	–	■	
Electromagnetic circuit-breaker (2 x 16 A, type C)	–	■	
Input voltage 230 V/400 V (50/60 Hz)	■	■	
Power supply via CMC III system (24 V DC)	■	■	
CAN bus for direct connection to CMC III system (RJ45, 2x sockets)	■	■	
Maximum no. of systems that may be connected to one CMC III PU	8	8	
Ambient conditions			
Operating temperature	0 °C…+45 °C		
Storage temperature	-25 °C…+70 °C		
Ambient humidity (non-condensing)	10 – 95 %		
Accessories			
PSM connection cable, 3-phase, with CEE connectors (IEC 60 309), length 3 m (2 x required when using both infeeds)	7856.025	Fixed installation	751
PSM mounting kit for mounting on the VX IT rack frame, height 2000 mm	7859.060	7859.060	751
PSM module 4 x earthing-pin, black	7856.100	7856.100	748
PSM module 4 x earthing-pin, red	7856.240	7856.240	748
PSM module 6 x C13	7856.080	7856.080	748
PSM module 4 x C19	7856.230	7856.230	748
Other PSM socket modules	see page 748		

PSM socket modules

max. 16 A/3680 W per module

	Model No.							
	1							
Equipment	**7856.080**	**7856.082**	**7856.100**	**7856.240**	**7856.230**	**7856.070**	**7856.220**	**7856.090**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Occupied slots in PSM busbar	1	1	1	1	1	1	1	1
Connector pattern (type)	IEC 60 320 C13	IEC 60 320 C13	Earthing-pin CEE 7/3	Earthing-pin CEE 7/3	IEC 60 320 C19	IEC 60 320 C13	IEC 60 320 C13	Earthing-pin CEE 7/3
Number of outputs	6	6	4	4	4	6	4	4
Colour of slots	black	red	black	red	black	black	black	black
Lockable connectors (optional)	■	■	–	–	–	–	–	–
Miniature fuse per output	–	–	–	–	–	–	■	–
Thermal overload protection	–	–	–	–	–	■	–	■
Optical LED display (total current)	–	–	–	–	–	–	–	–
Optical LED display (switching status/status)	–	–	–	–	–	–	–	–
Illuminated colour display (display of measurements/alarms)	–	–	–	–	–	–	–	–
Switchable outputs (via CMC III)	–	–	–	–	–	–	–	–
Energy measurement per module (total values)	–	–	–	–	–	–	–	–
Dimensions (W x H x D)	52 x 250 x 45 mm							
Operating temperature	+5 °C...+45 °C							
Ambient humidity (non-condensing)	10 – 95 %							
Material	Extruded aluminium section/plastic							
Approvals	CE	CE	CE	CE	CE	CE	CE	CE

	Model No.						
	2		3		4		
Equipment	**7856.120**	**7856.191**	**7859.120**	**7859.130**	**7859.410**	**7859.420**	**7859.430**
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Occupied slots in PSM busbar	1	1	1	1	2	2	2
Connector pattern (type)	UTE CEE7/5	Switzerland T23	IEC 60 320 C13	IEC 60 320 C19	IEC 60 320 C13	IEC 60 320 C19 (+ 2 C13)	Earthing-pin CEE7/3 (+ 2 C13)
Number of outputs	4	4	6	4	8	6	6
Colour of slots	black	black	black	black	black	black	black
Lockable connectors (optional)	–	–	■	–	■	■	–
Miniature fuse per output	–	–	–	–	–	–	–
Thermal overload protection	–	–	–	–	–	–	–
Optical LED display (total current)	–	–	■	■	–	–	–
Optical LED display (switching status/status)	–	–	–	–	■	■	■
Illuminated colour display (display of measurements/alarms)	–	–	–	–	■	■	■
Switchable outputs (via CMC III)	–	–	–	–	■	■	■
Energy measurement per module (total values)	–	–	–	–	■	■	■
Dimensions (W x H x D)	52 x 250 x 45 mm				52 x 505 x 45 mm		
Operating temperature	+5 °C...+45 °C				+5 °C...+60 °C (at max 8 A per switch output)		
Ambient humidity (non-condensing)	10 – 95 %						
Material	Extruded aluminium section/plastic						
Approvals	CE	CE	CE	CE	CE	CE	CE

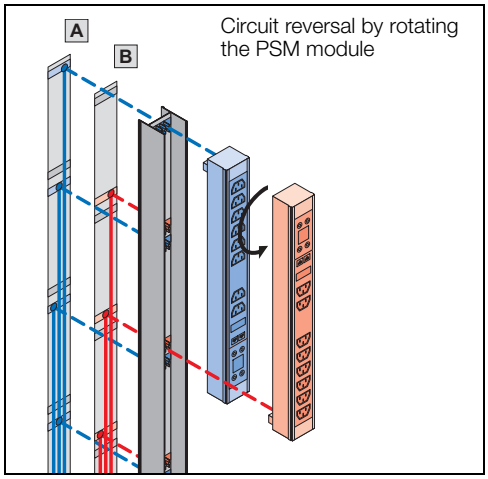
Approvals:
Available on the Internet

PSM measurement modules with CAN bus

for PSM busbars

A power meter and switching functions for the output slots can be added to any PSM busbar with these PSM plug-in modules. The modules are also suitable for upgrading existing PSM installations if it becomes necessary to record the power data or add a switching option for the connected equipment.

There are three variants available with different socket types. In the PSM busbar, the PSM modules occupy two module slots each. Measurements are displayed locally on a backlit LC display. For quick checks, the colour of the display backlight changes to red if current and power limits are exceeded.



Integration into the CMC III monitoring system

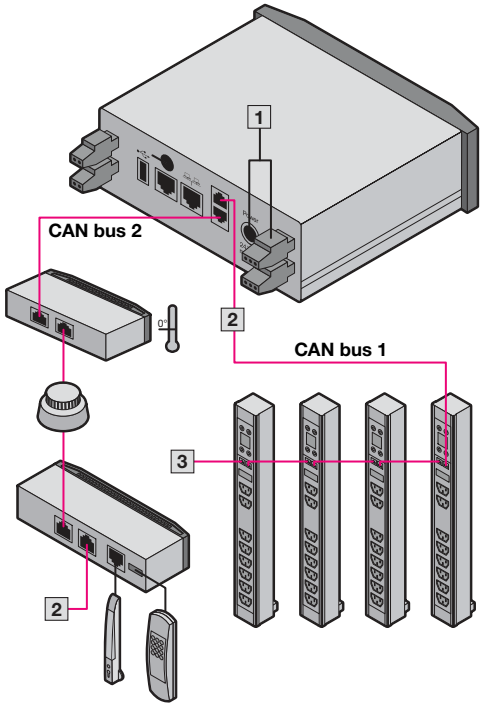
Multiple modules may be interconnected and linked directly to the CMC III enclosure monitoring system via the integral CAN bus interface. The PSM measurement module supports the configuration of an energy data management (EMS) system to ISO 50001. This may be combined with the CMC III. Using the CMC III, the individual output slots of the PSM modules may be switched individually or in groups via the network. Similarly, data logging, including diagrammatic representation, is also available via the CMC III website. Data is forwarded from the CMC III via an Ethernet interface with common protocols such as SNMPv3, Modbus/TCP and OPC-UA. The switch function is easily linked to other sensors connected to the CMC III monitoring system (e.g. CMC III temperature sensor, smoke alarm or DET-AC III extinguisher system). In larger installations, we recommend incorporating the CMC III PU with PSM modules into a DCIM software package (e.g. RiZone).

Additional functions:

- Alarm management via CMC III (e.g. e-mail or text message)
- Visualisation of the switching status on the CMC III website and RiZone
- Up to 16 PSM modules on one CMC III PU (per IP address)
- Rights management via CMC III (e.g. restriction of the switching function)

Functions:

- Simple, shock-hazard-protected, plug & play installation with the system operational
- Measurement of power consumption per module
- Output slots may be switched individually and in groups
- Blue LEDs per slot to visually indicate the switching status
- Status LEDs for CAN bus communication per module
- LC matrix display with multi-coloured backlight for local display
- Location sensor for correct display and Web view in 90° increments
- Adjustable limits for voltage, current and active power
- Configurable overload detection per module
- High level of measurement accuracy
- Alarm signalling via the display
- Facilitates the implementation of requirements to ISO 50 001 and EN 50 600-2-2
- Stable aluminium section with plastic socket inserts
- Supports universal connector locking of the IEC 60 320, C13 and C19 slots
- Supports the closure of unneeded IEC 60 320, C13 and C19 slots
- PSM module is easily fitted into and removed from the PSM busbar, for use at different locations
- Compatible with the European PSM busbar range
- Depending on the PSM busbar, up to four modules per bar may be fitted
- In redundant systems, the circuit may be switched over by rotating the module
- For ambient temperatures up to +60 °C



1 Voltage supply 24 V (DC) and redundant voltage supply 24 V (DC)

2 Supports up to 16 sensors per CAN bus (depending on the power supply/connection combinations)

3 Supports up to 8 PSM modules per CAN bus

PSM measurement modules

PSM measurement modules with CAN bus

for PSM busbars

Supply includes:
- PSM measurement module, depending on type
- CAN bus connection cable, 1 m long

Also required:
- PSM busbars and accessories, see page 745
- CMC III Processing Unit/Compact, see page 803
- CMC III accessories, see page 806

Accessories:
- Slot cover, see page 752
- Connector lock, see page 752

Model No.	7859.410	7859.420	7859.430
Packs of	1 pc(s).	1 pc(s).	1 pc(s).
No. of IEC 60 320 C13 slots	8	2	2
No. of IEC 60 320 C19 slots	–	4	–
No. of earthing-pin slots (CEE 7/3 or type F)	–	–	4
Total no. of all switchable outputs	8	6	6
No. of slots required in the PSM busbar	2	2	2
Module dimensions (W x H x D)	53 x 500 x 45 mm		
Section	Aluminium, anodised		
Plastic	PA 6		
Electrical			
No. of infeeds per module	1 pc(s).		
Input voltage	230 V AC		
Input voltage, tolerance	207 – 250 V AC		
Rated current	16 A		
Distribution power per module (at 230 V)	3680 W		
Power supply (via CMC III system, alternatively with power pack 7201.210)	18 – 24 V DC		
Relay type	Dual coil/bistable		
Relay switching load	4000 VA		
Measurement functions			
Voltage V, current A, frequency Hz	■		
Active power kW, active energy kWh	■		
Reactive power kVar, reactive energy kVarh	■		
Apparent power kVA, apparent energy kVAh	■		
Power factor cos ϕ, crest factor (amplitude factor)	■		
Operating hours meter d, h, min	■		
Measurement accuracy	±1%		
Resettable measurement functions/reset via software/interval measurement			
Active energy kWh	■		
Operating hours meter h	■		
Threshold values (warning/alarm) freely configurable	Voltage, current, active power		
Connectivity / management functions (in conjunction with CMC III)			
Maximum number of usable modules per CMC III Processing Unit	16 (2 x 8)		
Maximum number of usable modules per CMC III Processing Unit Compact	4		
CAN bus for direct connection to CMC III system	2 (RJ45)		
Network functionality (only in conjunction with CMC III system)	IPv4, IPv6, SNMPv3, Modbus/TCP, OPC-UA		
Ambient conditions			
Operating temperature (at max. 8 A per output slot)	+5 °C…+60 °C		
Storage temperature	-20 °C…+70 °C		
Ambient humidity (non-condensing)	rel. humidity 10 – 90%		
Maximum operating altitude	2000 m		
Contamination level	2		
Protection class (IEC 60 529)	IP 20		
Approvals and standards			
Approval	CE		
Standards (excerpt)	Low Voltage Directive 2014/35/EU, EMC Directive, 2014/30/EU, EN 50 600-2-2		

Mounting kit

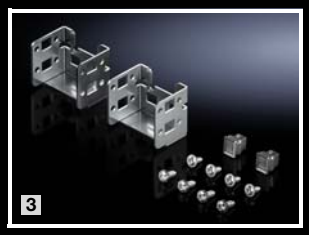
for PSM busbars

Benefits:
– In the VX IT rack, orientation of the busbar is possible either to the rear or to the enclosure interior

Material:
– Sheet steel, zinc-plated

Supply includes:
– 2 mounting brackets
– Assembly parts

To fit enclosure type	Installation options	Packs of	Model No.
1 TE 8000	Static	1 pc(s).	**7000.684**
2 VX IT	Plug & play on the rack frame	1 pc(s).	**7859.060**
3 VX IT	Plug & play in the zero-U space	1 pc(s).	**7859.065**



Connection cable

for PSM busbars

	Length m	Packs of	Model No.
Connection cable, 3-phase			
CEE-conforming 5-pole/16 A	3	1 pc(s).	**7856.025**
Connection cable, 1-phase			
CEE-conforming 3-pole/16 A	3	1 pc(s).	**7856.026**
Connection cable, UPS, single-phase			
C14/X-COM 10 A/UPS, 1 – 2 kVA	3	1 pc(s).	**7856.027**
C20/X-COM 16 A/UPS, 3 kVA	3	1 pc(s).	**7856.030**
Connection cable C19/C20			
16 A	2	1 pc(s).	**7200.217**
Connection cable C13/C14			
10 A	0.5	2 pc(s).	**7856.014**

Overvoltage protection PSM

Connected upstream of the busbar.

Rated operating voltage:
– 230 V, 3~

Rated current:
– 16 A

Overvoltage protection:
– Fine fuse (type 3 arrester)

Connections:
– Jack Wago X-COM
– Connector Wago X-COM

Overvoltage protection	Packs of	Model No.
With adaptor connector	1 pc(s).	**7856.170**

Note:
– With redundant infeed to the PSM busbar, 2 x this item is required

Accessories

Cable lock PSM

for all modules with EN 60 320 C13 connector configurations
All terminal connection cables are therefore protected against unintentional disconnection of the power supply. Two bars are needed for two cables.

Type	Packs of	Model No.
Bar	20 pc(s).	**7856.013**

Accessories:

– Optimum locking function is only achieved with connection cable 7856.014, see page 751

Connector lock

for C14 and C20 connectors
The universal lock can be used to latch IEC 60 320 C14 or C20 connectors in place to prevent accidental removal. Latching is adjustable and adapts to standard connector forms. This creates a reliable manufacturer-independent connection for most connection cables commonly available on the market.

Material:
– Plastic (PA 12)

Colour:
– RAL 9005

Packs of	Model No.
20 pc(s).	**7979.020**

Slot cover

for C13 and C19 slots
The slot cover is used to close open, unused IEC 60 320 C13 and C19 slots. This prevents accidental overloading of individual phases. The cover can be removed at any time using the enclosed release tool (or a slotted screwdriver).

Material:
– Plastic (PA 66)

Colour:
– RAL 9005

Supply includes:
– Release tool

For slots	Packs of	Model No.
C13	10 pc(s).	**7955.010**
C19	10 pc(s).	**7955.015**

PDU mounting adaptor

for TE
For installing the power distribution unit PDU in the zero-U space of the TE. The divider kit included with the supply of the PDU is required for mounting.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**7000.688**

Modular PDU (PSM) Page 744 **Power basic** Page 733

Autonomous energy metering unit (including differential current monitoring) in a 1 U/19" form factor. The unit is incorporated into the supply lead to the equipment, a PDU basic or a modular PDU without measurement function. All key electrical characteristics are logged in the same way as with a PDU metered. Additionally, the measurement module features an integral differential current measurement (type B) for fault current monitoring of the connected equipment. Consumption data is conveniently retrieved via a network interface or locally via a TFT display. Additionally, all the PDU metered interfaces, e.g. for connecting external sensors and smart handle systems, are available.

Benefits:
- The ideal solution for upgrading existing installations which lack modern measurement functions
- Includes differential current measurement/fault current monitoring
- Extensive measuring functions (as with PDU metered)
- Versions for 16 A/32 A phased current, 1-phase/3-phase
- Versions with connection cable and CEE connectors, ready to use immediately
- Fast upgrade, installation only requires a brief interruption to operation
- Compact 482.6 mm (1 U 19") enclosure with pre-assembled connection cables
- High degree of measurement accuracy (typically ±1%)
- Energy-efficient design, minimal inherent power consumption
- Acoustic alarm may be set if certain limits are exceeded (such as fault currents)
- Integral GbE interface with web server for autonomous operation without any additional components
- Sensor interface for up to 8 CMC III/PDU ambient sensors (including access management/handle systems)

Material:
- Extruded aluminium section, anodised

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 51

Standards:
- EN 62 368-1
- EN 61 000-4
- EN 61 000-6
- EN 55 022

Low Voltage Directive:
- 2014/35/EU

EMC directive:
- 2014/30/EU

RCM measurement module – Inline meter

Model No.		7979.711	7979.712	7979.713	7979.714
	Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Version		16 A	32 A	16 A	32 A
Type of connection		CEE connector/coupling	CEE connector/coupling	CEE connector/coupling	CEE connector/coupling
Connection cable/length		H05VV F3G2.5/1 m	H05VV F3G4.0/1 m	H05VV F5G2.5/1 m	H05VV F5G4.0/1 m
Output kW		3.7	7.4	11.0	22.0
Phases		1~	1~	3~	3~
Phase current		16 A	32 A	16 A	32 A

Upgrade solution

Modular PDU (PSM) Page 744 **Power distribution unit (PDU)** Page 732

Compact overvoltage protection module for protecting terminal equipment (type 3) with alarm contact, for mounting on the enclosure frame. The modules are used to protect sensitive hardware and represent the third or final stage in the overvoltage protection chain. Additionally, other type 1 or type 2 overvoltage protective devices must be present in the building installation or power distribution system.

Benefits:
- Fully wired overvoltage protection solution, ready to connect and use immediately
- For universal use
- High availability – In the event of a fault, arresters can be replaced without interrupting the power supply
- Maintenance-friendly version with a plug-in system for the protective modules
- Versions for 16 A/32 A phased current, 1-phase/3-phase
- Versions with connection cable and CEE connectors
- Ready to use immediately on TN-S networks
- Connection paths L/N and N/PE
- Optical status monitoring directly on the arrester
- Status message via floating alarm contact for forwarding e.g. to building services management
- Space-saving assembly thanks to compact design

Material:
- Extruded aluminium section, anodised

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 51

Standards:
- IEC 61 643-11
- EN 61 643-11

Low Voltage Directive:
- 2014/35/EU

EMC directive:
- 2014/30/EU

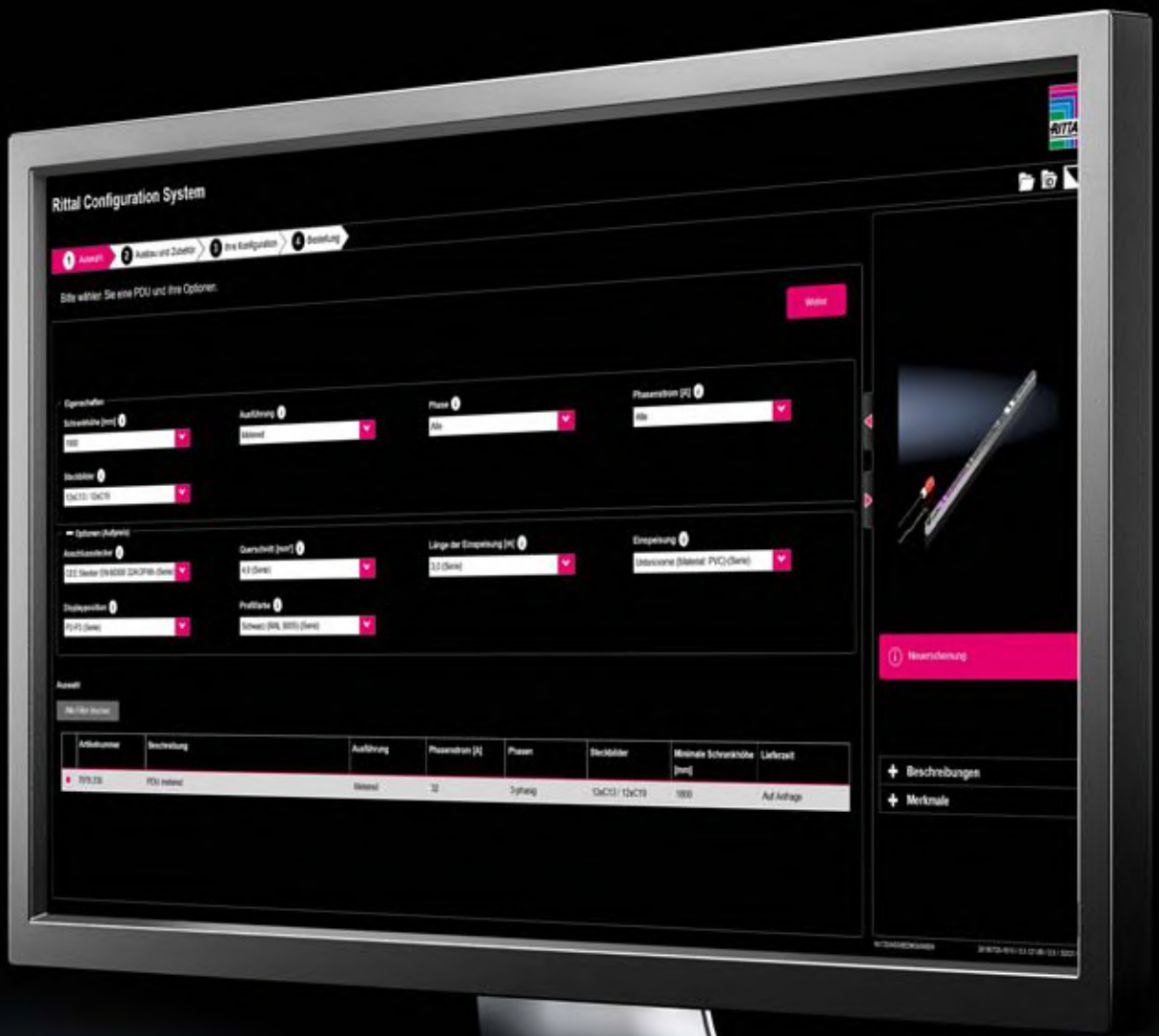
Supply includes:
- Assembly parts

Overvoltage protection module, type 3

Model No.		7979.721	7979.722	7979.723	7979.724
	Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Type of connection		CEE connector/coupling	CEE connector/coupling	CEE connector/coupling	CEE connector/coupling
Connection cable/length		H05VV F3G2.5/1 m	H05VV F3G4.0/1 m	H05VV F5G2.5/1 m	H05VV F5G4.0/1 m
Output kW		3.7	7.4	11.0	22.0
Phases		1~	1~	3~	3~
Phase current		16 A	32 A	16 A	32 A

Rittal Configuration System

Customised, modular PDU variants



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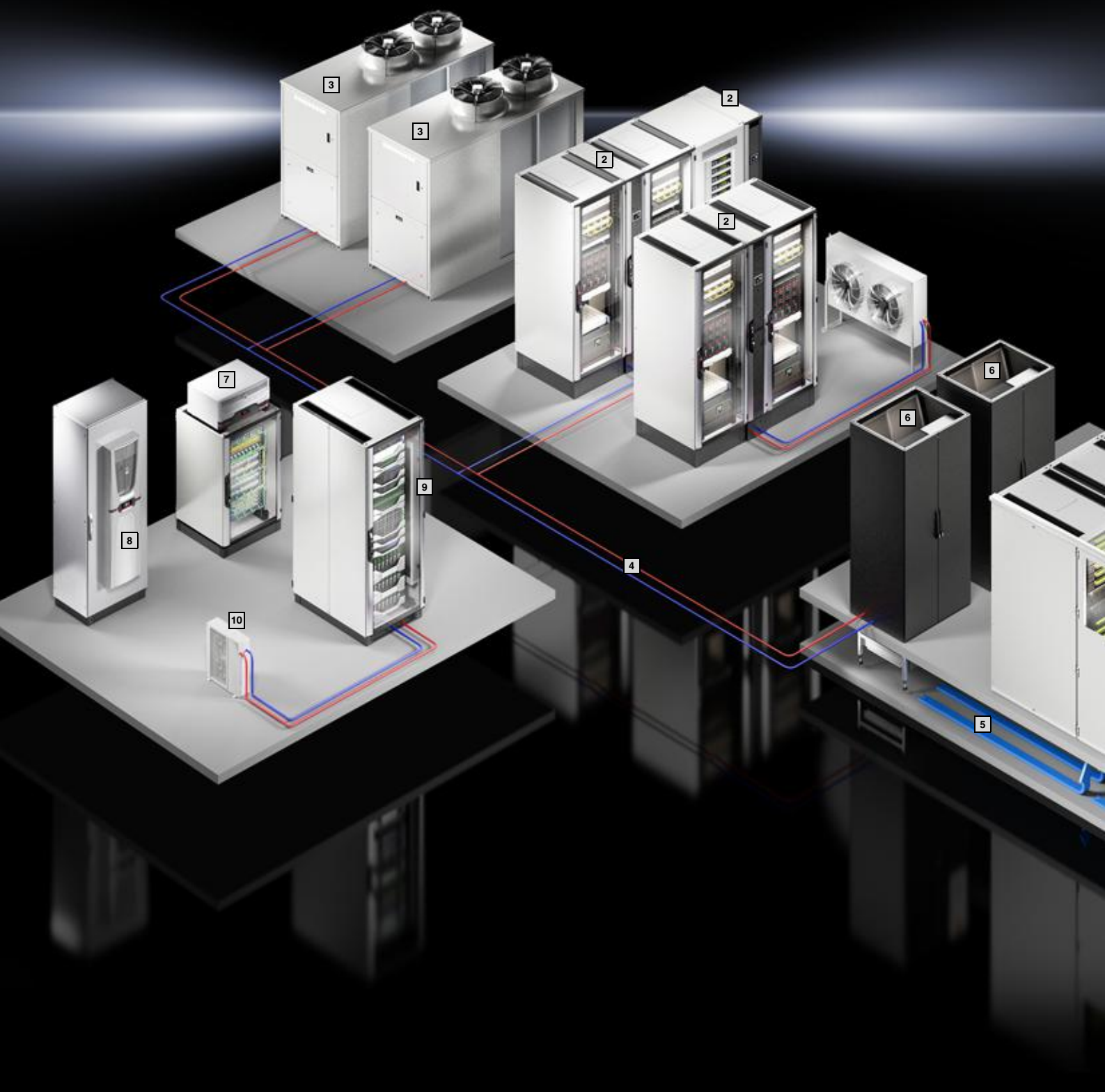

IT cooling

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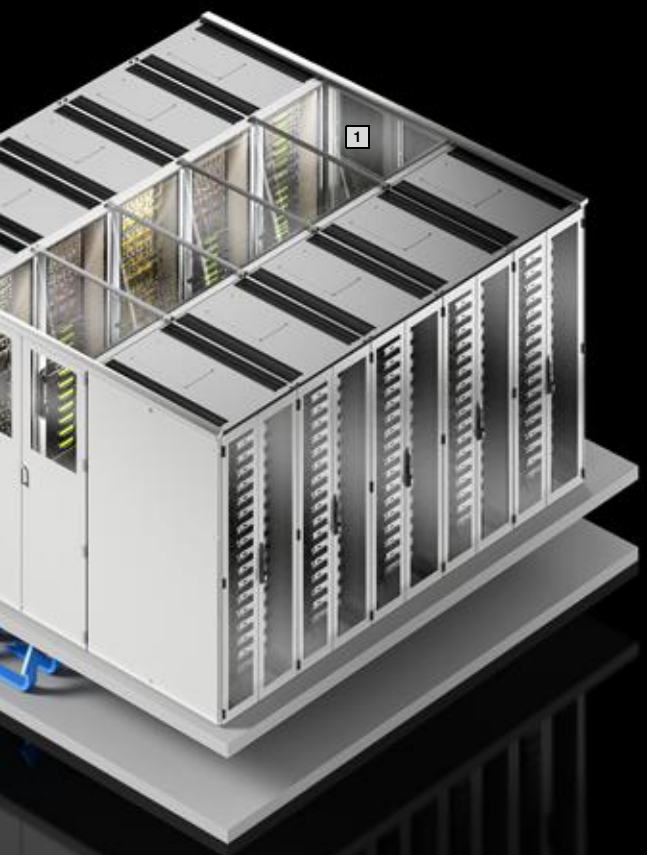


Your benefits

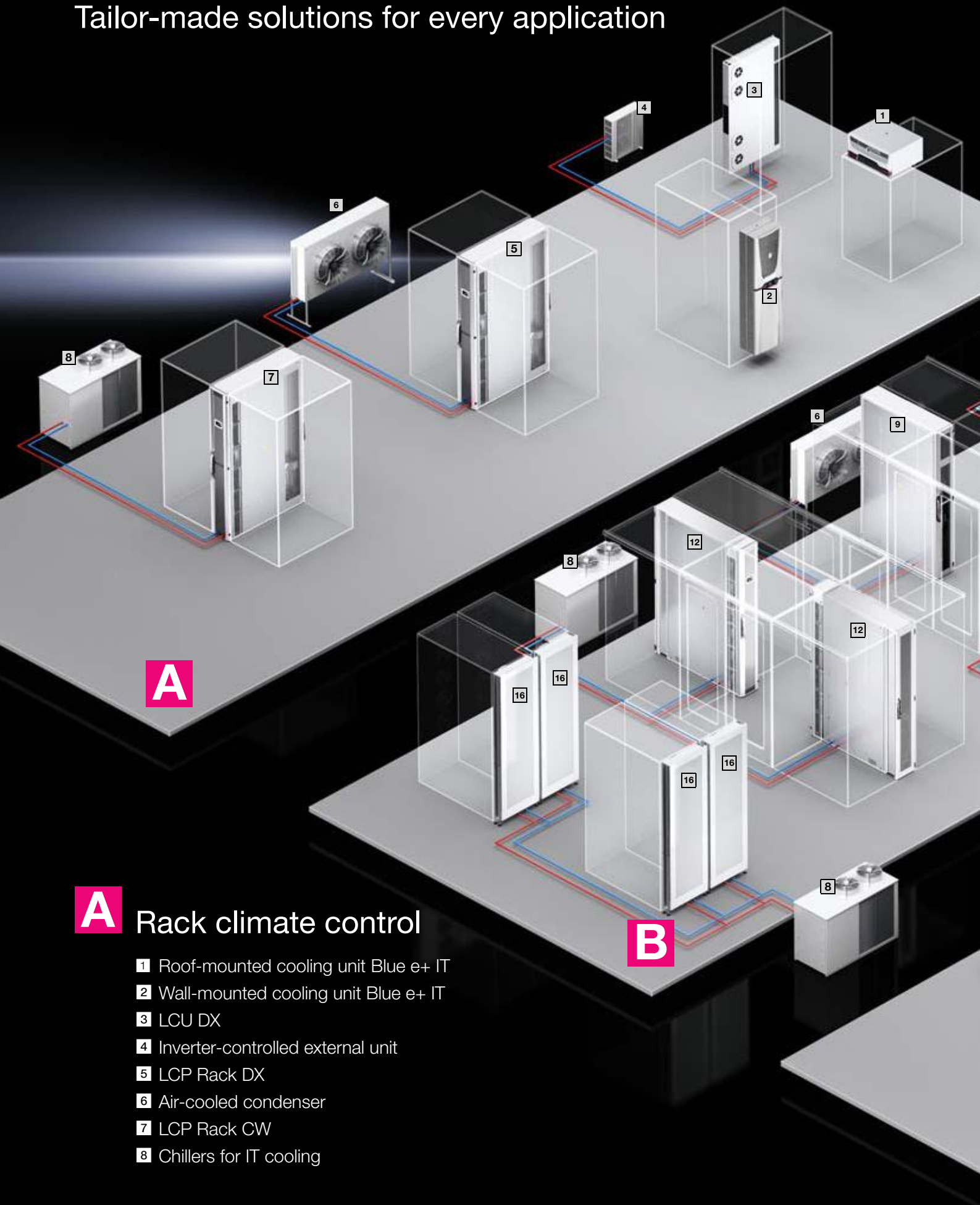
- State-of-the-art climate control technology, from cooling of a single rack through to entire data centres
- Individual climate control concepts for rack, suite and room cooling
- Enhanced security plus superior energy and cost efficiency
- Optimisation with aisle containment and cross-system control concepts
- Energy-efficient cooling using IT chillers
- Minimise your operating costs with free cooling
- Environmentally friendly, thanks to resource savings and reduced CO_2 emissions
- Planning, assembly, commissioning and servicing – all from a single source!

Sample applications

1 Aisle containment, see page 788
2 Liquid Cooling Package LCP, from page 773
3 IT chiller with integral free cooling (partner product), see page 794
4 Pipework
5 Raised floor for cold air supply
6 Computer Room Air Conditioner CRAC (partner product), see page 792
7 Roof-mounted cooling unit Blue e+ IT, see page 764
8 Wall-mounted cooling unit Blue e+ IT, see page 765
9 LCU DX, see page 768
10 Inverter-regulated external unit, see page 768

IT cooling

Tailor-made solutions for every application



A Rack climate control

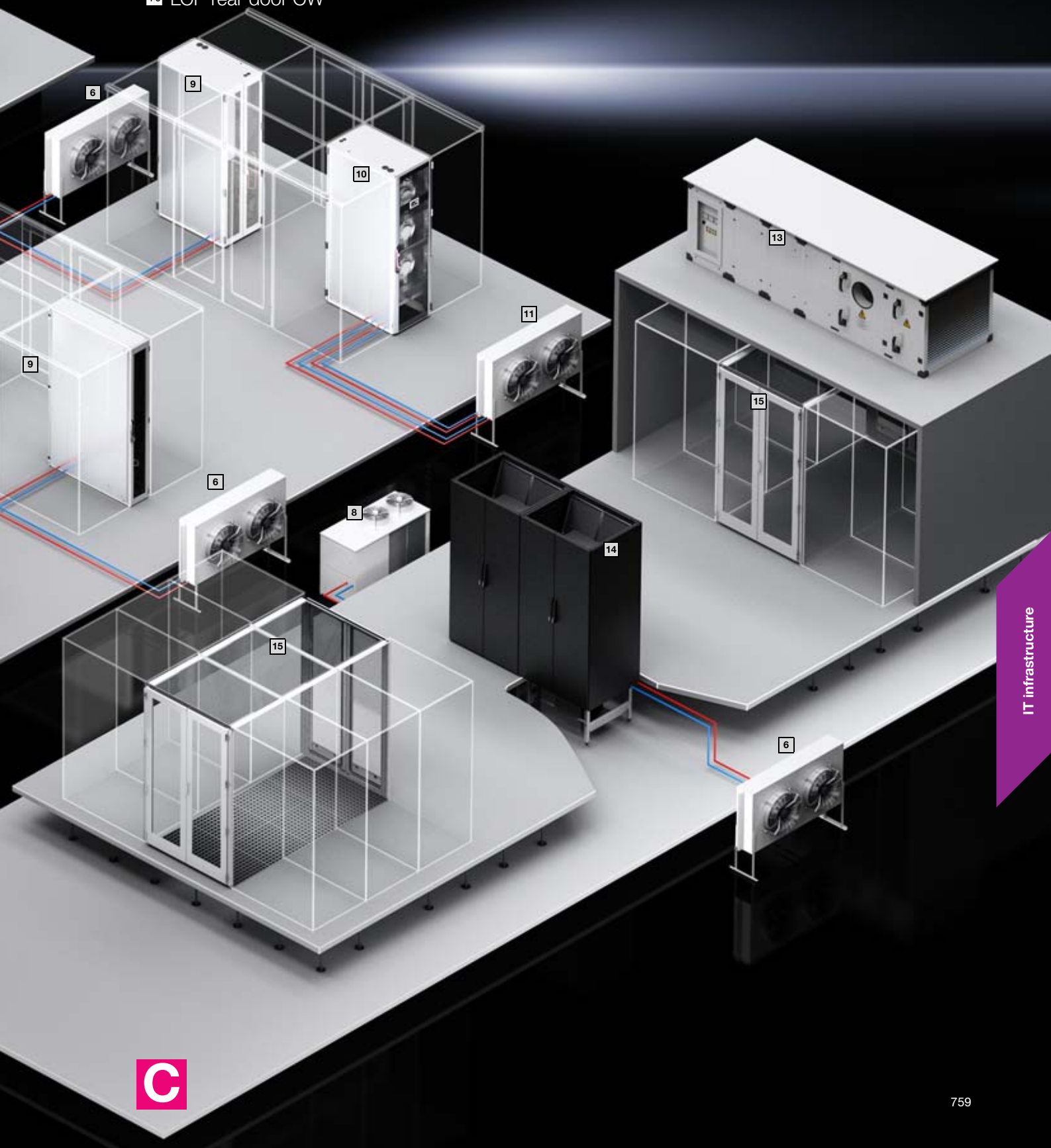
1. Roof-mounted cooling unit Blue e+ IT
2. Wall-mounted cooling unit Blue e+ IT
3. LCU DX
4. Inverter-controlled external unit
5. LCP Rack DX
6. Air-cooled condenser
7. LCP Rack CW
8. Chillers for IT cooling

B Bayed climate control

- 6 Air-cooled condenser
- 8 Chillers for IT cooling
- 10 LCP Inline DX, flush
- 10 LCP Inline DX/FC
- 11 Air-cooled condenser with integral free cooler
- 12 LCP Inline CW, set forward
- 16 LCP rear door CW

C Room climate control

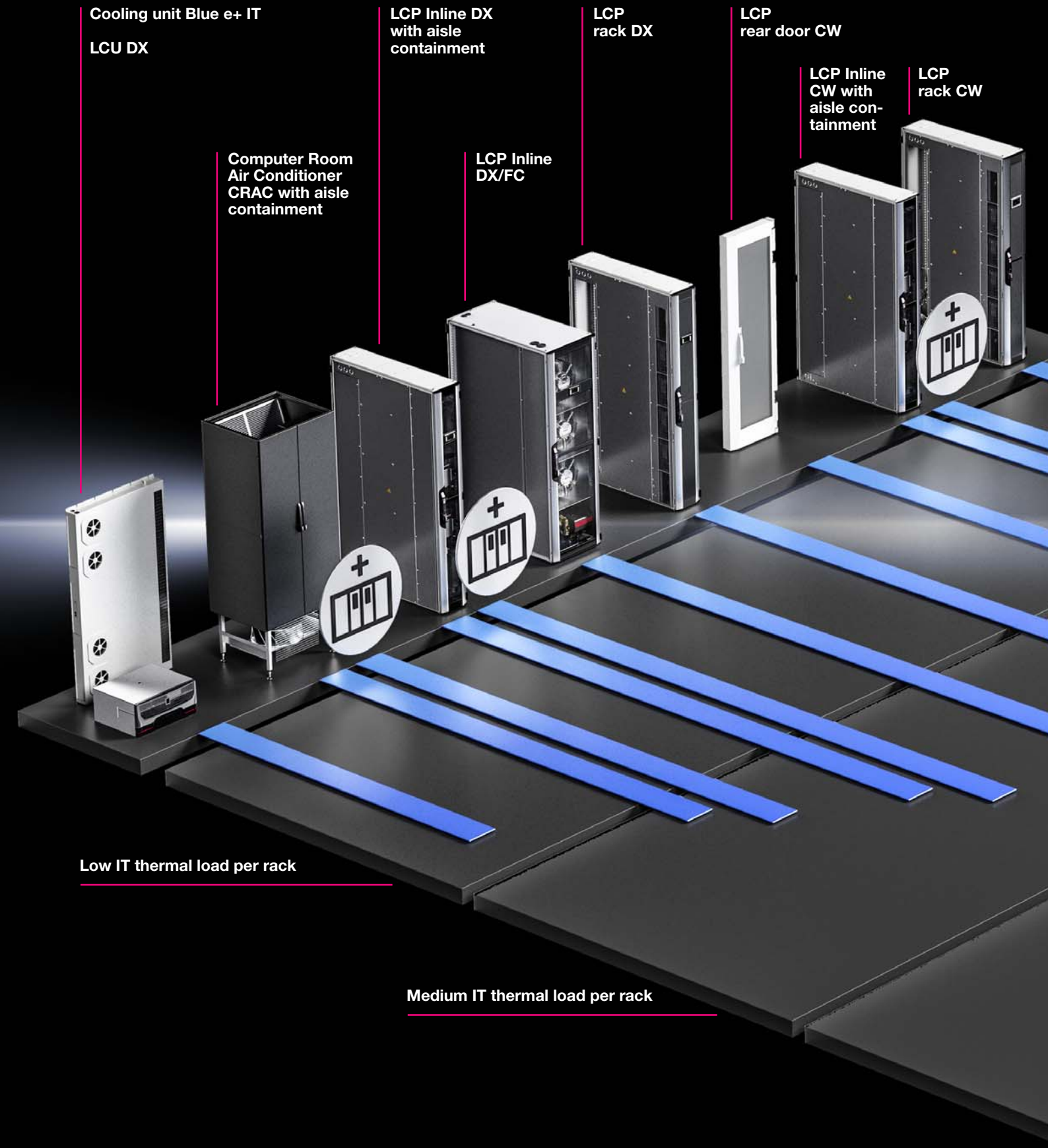
- 6 Air-cooled condenser
- 8 Chillers for IT cooling
- 13 Air Handling Unit AHU
- 14 Computer Room Air Conditioner CRAC
- 15 Aisle containment



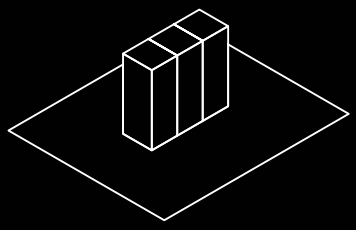
C

State-of-the-art climate control technology

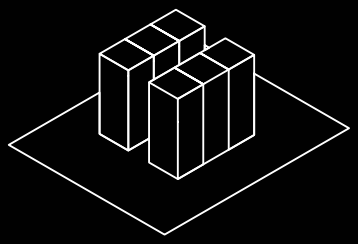
Bespoke climate control concepts



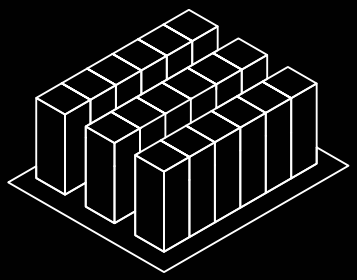
From cooling a single rack through to entire data centres – climate control technology from Rittal covers all your applications. Whether you opt for fan systems, refrigerant-based or water-based solutions, reliability and optimum energy and cost efficiency are the paramount considerations.



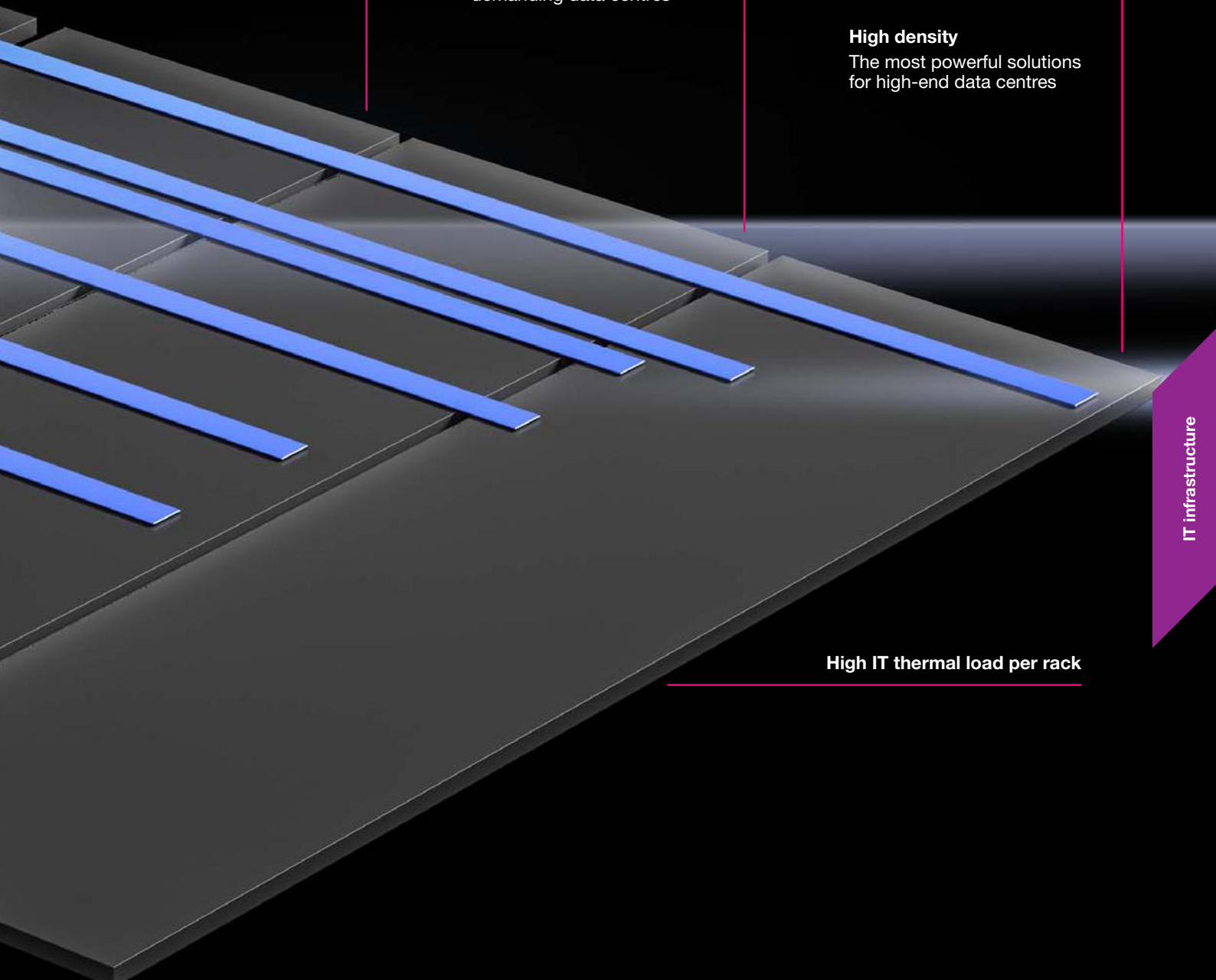
Low density
Professional IT climate control for individual IT racks and mini data centres



Mid density
Bespoke solutions for more demanding data centres



High density
The most powerful solutions for high-end data centres



High IT thermal load per rack

Cooling units Blue e+ IT

Rack cooling with innovative hybrid technology

Blue e+ IT – the world's most efficient IT cooling unit

- Cooling of closed IT racks with a heat loss of up to 3 kW in ventilated rooms
- Cooling of edge data centres and network racks in ventilated corridor distributor rooms
- Heat pipe technology reduces operating costs
- Simple installation equals minimal commissioning costs
- Suitable for use in industrial environments, thanks to the high protection category

How are Blue e+ units used?

- The roof-mounted unit is mounted on the racks. The cold air is blasted immediately in front of the 482.6 mm (19″) level and drawn in by the IT equipment. The warm air expelled to the rear is drawn in and cooled down again by the roof-mounted unit. Air baffle plates on the 482.6 mm (19″) level separate the cold and hot air.
- The wall-mounted unit is mounted on the rear door of the IT rack The outlet opening of the cooling unit docks onto an air duct which directs the cold air forwards, in front of the 482.6 mm (19″) level. There, the cold air is drawn in by the IT equipment, heated, expelled to the rear and then drawn in again by the cooling unit.
- In both applications, air baffle plates on the 482.6 mm (19″) level separate the cold and hot air

Simply efficient

- Active cooling circuit with speed-regulated components for demand-based cooling
- Integral heat pipe for passive cooling achieves up to 75% energy savings
- USB interface, Blue e+ app, IoT interface, touchscreen display
- Ethernet connection and data retrieval via SNMP, OPC-UA and Modbus/TCP
- Blue e+ efficiency calculator

Roof-mounted cooling unit Blue e+ IT

Accessories for IT cooling Page 784 **IT rack system** Page 684 **Roof-mounted cooling unit** Page 498 **IoT interface** Page 554

The use of Blue e+ technology makes this bundle ideally suited to the requirements of energy-efficient cooling of IT racks. In combination with the IoT interfaces, it supports communication with various different systems as well as monitoring and energy management.

Benefits:
- Energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Intuitive operation due to touch display and intelligent interfaces

Functions:
- The cold air is directed immediately in front of the 482.6 mm (19") level and drawn in by the IT equipment. The warm air expelled to the rear is drawn in and cooled down again by the roof-mounted unit. Air baffle plates on the 482.6 mm (19") level separate the cold and hot air.

Temperature control:
- e+ controller

Protection category IP to IEC 60 529:
- External circuit IP 54 with pleated filter
- Internal circuit IP 54 with pleated filter

Supply includes:
Bundle comprised of the following individual components:
- Roof-mounted cooling unit (3185.730)
- IoT interface (3124.300)
- Temperature sensor (3124.400)
- Connection cable (7030.091)
- Nylon loop cable holder (7111.350)

Note:
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:
Available on the Internet

Model No.	Packs of	**3312.800**	Page
Technical specifications, cooling unit			
Total cooling output L30 L22 W		1600	
Width mm		700	
Height mm		308	
Depth mm		560	
Material		Sheet steel	
Colour		RAL 7035	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Type of electrical connection		Plug-in terminal strip	
Operating temperature range		-20 °C...+55 °C	
Refrigerant g		R134a, 590	
Technical specifications, IoT interface			
Protocols		OPC-UA/SNMPv1/SNMPv2/SNMPv3/Modbus/TCP/TCP/IPv4/TCP/IPv6/Radius/Telnet/SSH/FTP/SFTP/HTTP/HTTPS/NTP/DHCP/DNS/SMTP/Syslog/LDAP	

Wall-mounted cooling unit Blue e+ IT

Accessories for IT cooling Page 784 **IT rack system** Page 684 **Wall-mounted cooling unit** Page 475 **IoT interface** Page 554

The use of Blue e+ technology makes this bundle ideally suited to the requirements of energy-efficient cooling of IT racks. In combination with the IoT interfaces, it supports communication with various systems as well as monitoring and energy management.

Benefits:
- Energy savings thanks to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability
- Intuitive operation due to touch display and intelligent interfaces

Functions:
- The wall-mounted unit is mounted on the rear door of the IT rack. The outlet opening of the cooling unit docks onto an air duct which directs the cold air forwards, in front of the 482.6 mm (19") level. There, the cold air is drawn in by the IT equipment, heated, blown out to the rear and then drawn in again by the cooling unit.

Temperature control:
- e+ controller

Protection category IP to IEC 60 529:
- External circuit IP 24
- Internal circuit IP 55

Supply includes:
Bundle comprised of the following individual components:
- Wall-mounted cooling unit (3187.930)
- IoT interface (3124.300)
- Temperature sensor (3124.400)
- Connection cable (7030.091)
- Nylon loop cable holder (7111.350)

Note:
- Firmware can be updated using the RiDiag III software (3159.300)

Approvals:
Available on the Internet

Model No.	Packs of	**3312.810**	Page
Technical specifications, cooling unit			
Total cooling output L30 L22 W		3000	
Width mm		450	
Height mm		1600	
Depth mm		294	
Material		Sheet steel	
Colour		RAL 7035	
Rated operating voltage V, ~, Hz		110 - 240, 1~, 50/60 380 - 480, 3~, 50/60	
Type of electrical connection		Plug-in terminal strip	
Operating temperature range		-20 °C...+60 °C	
Refrigerant g		R134a, 1150	
Technical specifications, IoT interface			
Protocols		OPC-UA/SNMPv1/SNMPv2/SNMPv3/Modbus/TCP/TCP/IPv4/TCP/IPv6/Radius/Telnet/SSH/FTP/SFTP/HTTP/HTTPS/NTP/DHCP/DNS/SMTP/Syslog/LDAP	
Also required			
Air duct	1 pc(s).	3312.820	784

Liquid Cooling Unit DX

Efficient cooling with no loss of space

Single or redundant – your compact IT cooling solution

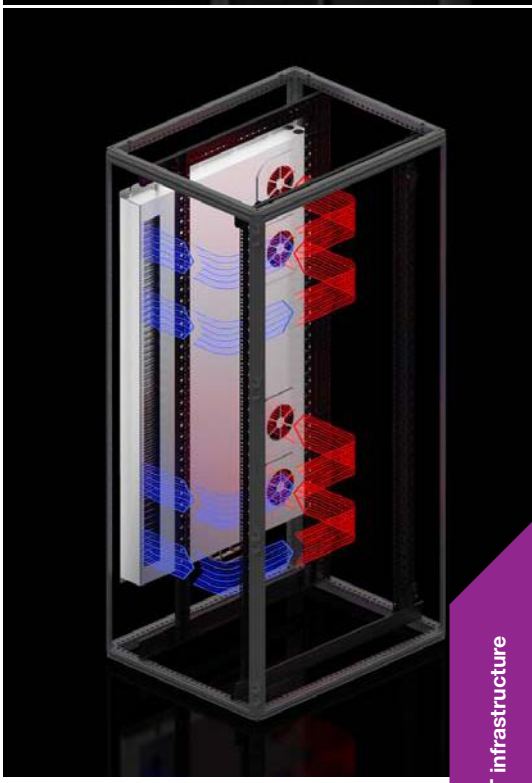
- Cooling of closed IT racks with a heat loss of up to 6.5 kW
- Cooling of edge and micro data centres
- Cooling of IT equipment in uncooled IT rooms or decentralised data centre applications
- Single version (one cooling circuit) and redundant version (two separate cooling circuits) have the same internal unit dimensions, but two independent external units

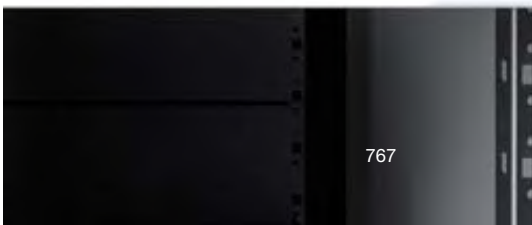
How are the LCU DX units used?

- The LCU DX is fitted in the IT rack at the side, to the left or right of the 482.6 mm (19″) level
- The cold air is blasted in front of the slightly recessed 482.6 mm (19″) level across the entire height of the LCU DX and drawn in by the IT equipment
- The warm air expelled to the rear is drawn back in over the full height of the LCU DX at the rear and cooled
- Air baffle plates on the 482.6 mm (19″) level separate the cold and hot air

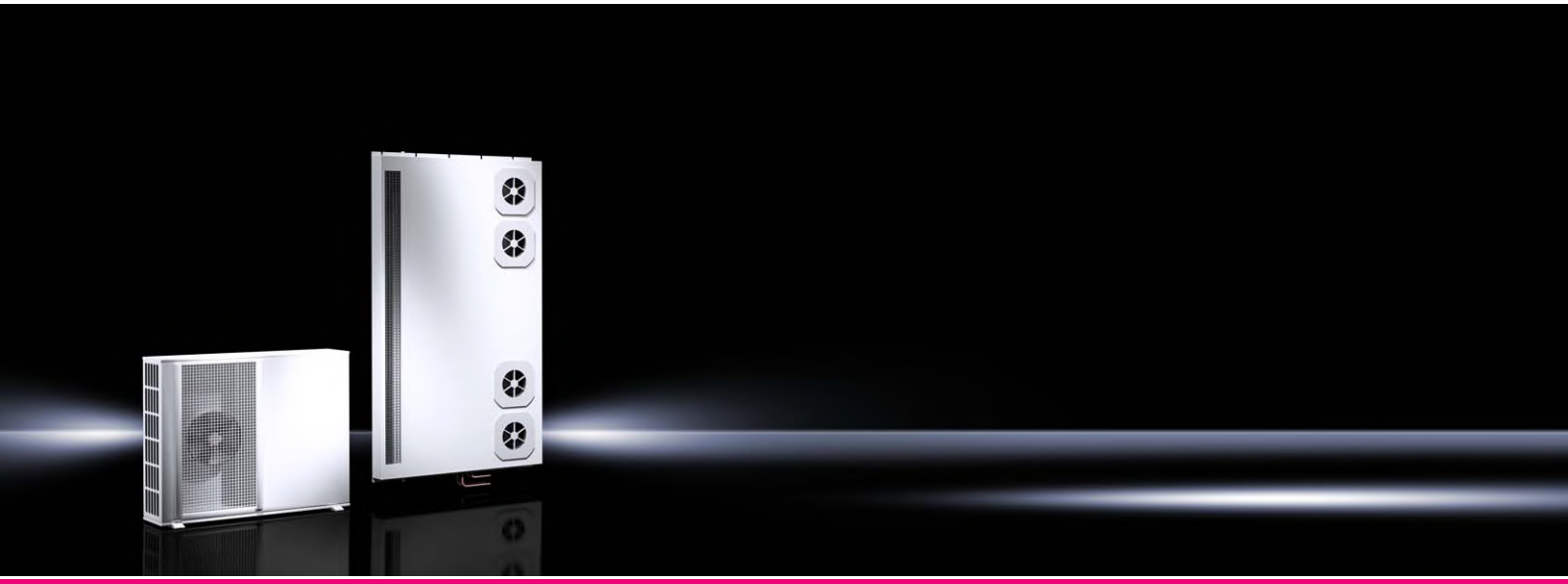
The compact system solution

- Active cooling circuit with speed-regulated components for demand-based cooling
- By only cooling the IT rack rather than the entire room, energy savings are achieved
- Unlike conventional ceiling and wall cassettes, cooling is demand-based
- All waste heat from the IT equipment is dissipated out of the building and emitted to the surrounding environment at the site of the external condenser
- May be combined with integral rack extinguisher systems





Liquid Cooling Unit



Network/server racks VX IT Page 686 **Micro Data Center** Page 842

Applications:
– Cooling unit for VX IT server racks and for Micro Data Centers

Benefits:
– Space-saving solution by installing the internal unit in the VX IT server enclosure or the Micro Data Center
– Maximum energy efficiency due to EC fan technology and IT-based control
– Control of the server inlet temperature
– The inverter-controlled compressor adapts the cooling output to the current heat loss inside the enclosure
– Absorbed thermal energy is emitted directly to the ambient air at the (inverter-controlled) external unit's location, without heating up the installation room

Functions:
– The device supports front-to-back air routing typical of IT applications, and regulates the server inlet temperature to the set value

Material:
– Sheet steel, spray-finished

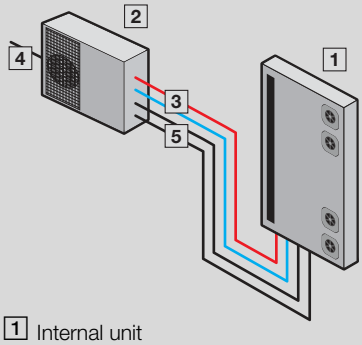
Colour:
– Internal unit: RAL 7035
– External unit: white

Protection category IP to IEC 60 529:
– Internal unit IP 20
– External unit IP X4

Supply includes:
– Internal unit (evaporator coil)
– External unit (inverter-controlled)
– 482.6 mm (19") mounting trim panel with display and control components
– Condensate hose

Note:
– Below the operating limit, fluctuations in the air inlet temperature are possible
– The electrical connection is made on the external unit. The internal unit is supplied by the external unit.

Installation in VX IT:
– 482.6 mm (19") mounting angles, standard or dynamic, must be offset in the width by 50 mm off-centre
– The front distance between the 482.6 mm (19") mounting angles and the front edge of the VX frame must be at least 100 mm
– Two punched sections with mounting flanges are required for attachment on the inner mounting level
– Air baffle plates are required to separate the hot/cold zones within an enclosure
– A base/plinth is required to route the cable downwards



1 Internal unit
2 External unit
3 Refrigerant lines
4 Power supply
5 Data cable

LCU DX, single

Model No.	Packs of	**3311.490**	**3311.492**	Page
Modulation range kW		1 - 3	3 - 6.5	
Useful cooling output L22 L35 kW		**3**	**6.5**	
For enclosure width mm		800	800	
For enclosure height mm		≥ 1800	≥ 1800	
For enclosure depth mm		≥ 1000	≥ 1000	
External unit, W x H x D mm		810 x 558 x 310	845 x 700 x 320	
Internal unit, W x H x D mm		105 x 1550 x 820	105 x 1550 x 820	
Type of electrical connection		Connection clamp	Connection clamp	
Rated operating voltage V, ~, Hz		230, 1~, 50	230, 1~, 50	
Rated current max. A		7	15.9	
Pre-fuse A		16	20	
Refrigerant		R410a	R410a	
Duty cycle %		100	100	
Sound pressure level at a distance of 10 m (external unit) dB(A)		40	40	
Operating temperature range (external unit)		-20 °C...+45 °C	-20 °C...+45 °C	
Weight as delivered kg		116.0	121.5	
Accessories				
Refrigerant lines	1 pc(s).	3311.495	3311.496	785

Liquid Cooling Unit

Network/server racks VX IT Page 686 **Micro Data Center** Page 842

Applications:
- Cooling unit for VX IT server racks and for Micro Data Centers

Benefits:
- Space-saving solution by installing the internal unit in the VX IT server enclosure or the Micro Data Center
- Maximum energy efficiency due to EC fan technology and IT-based control
- Control of the server inlet temperature
- The inverter-controlled compressor adapts the cooling output to the current heat loss inside the enclosure
- Absorbed thermal energy is emitted directly to the ambient air at the (inverter-controlled) external unit's location, without heating up the installation room

Functions:
- The redundant variants have two cooling circuits and controllers inside the internal unit, plus two inverter-regulated external units. The fault and operating hours changeover allows regular switching between the two external units, and ensures automatic changeover in the event of a malfunction or failure.
- The device supports front-to-back air routing typical of IT applications, and regulates the server inlet temperature to the set value

Material:
- Sheet steel, spray-finished

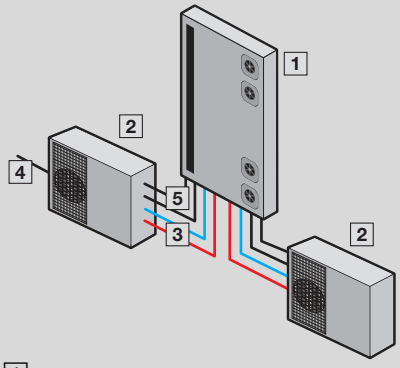
Colour:
- Internal unit: RAL 7035
- External unit: white

Protection category IP to IEC 60 529:
- Internal unit IP 20
- External unit IP X4

Supply includes:
- Internal unit (evaporator coil)
- 2 external units (inverter-controlled)
- 482.6 mm (19") mounting trim panel with display and control components
- Condensate hose

Note:
- Below the operating limit, fluctuations in the air inlet temperature are possible
- The electrical connection is made on the external unit. The internal unit is supplied by the external unit.
- A separate power supply may be needed, depending on the external unit

Installation in VX IT:
- 482.6 mm (19") mounting angles, standard or dynamic, must be offset in the width by 50 mm off-centre
- The front distance between the 482.6 mm (19") mounting angles and the front edge of the VX frame must be at least 100 mm
- Two punched sections with mounting flanges are required for attachment on the inner mounting level
- Air baffle plates are required to separate the hot/cold zones within an enclosure
- A base/plinth is required to route the cable downwards



1 Internal unit
2 External unit
3 Refrigerant lines
4 Power supply
5 Data cable

Liquid Cooling Unit

LCU DX, redundant

Model No.	Packs of	**3311.491**	**3311.493**	Page
Modulation range kW		1 - 3	3 - 6.5	
Useful cooling output L22 L35 kW		**3**	**6.5**	
For enclosure width mm		800	800	
For enclosure height mm		≥ 1800	≥ 1800	
For enclosure depth mm		≥ 1000	≥ 1000	
External unit, W x H x D mm		810 x 558 x 310	845 x 700 x 320	
Internal unit, W x H x D mm		105 x 1550 x 820	105 x 1550 x 820	
Type of electrical connection		Connection clamp	Connection clamp	
Rated operating voltage V, ~, Hz		230, 1~, 50	230, 1~, 50	
Rated current max. A		7	15.9	
Pre-fuse A		16	20	
Refrigerant		R410a	R410a	
Duty cycle %		100	100	
Sound pressure level at a distance of 10 m (external unit) dB(A)		40	40	
Operating temperature range (external unit)		-20 °C...+45 °C	-20 °C...+45 °C	
Weight as delivered kg		161.0	184.0	
Accessories				
Refrigerant lines	1 pc(s).	3311.495	3311.496	785

Rittal Service.

Service with manufacturer know-how

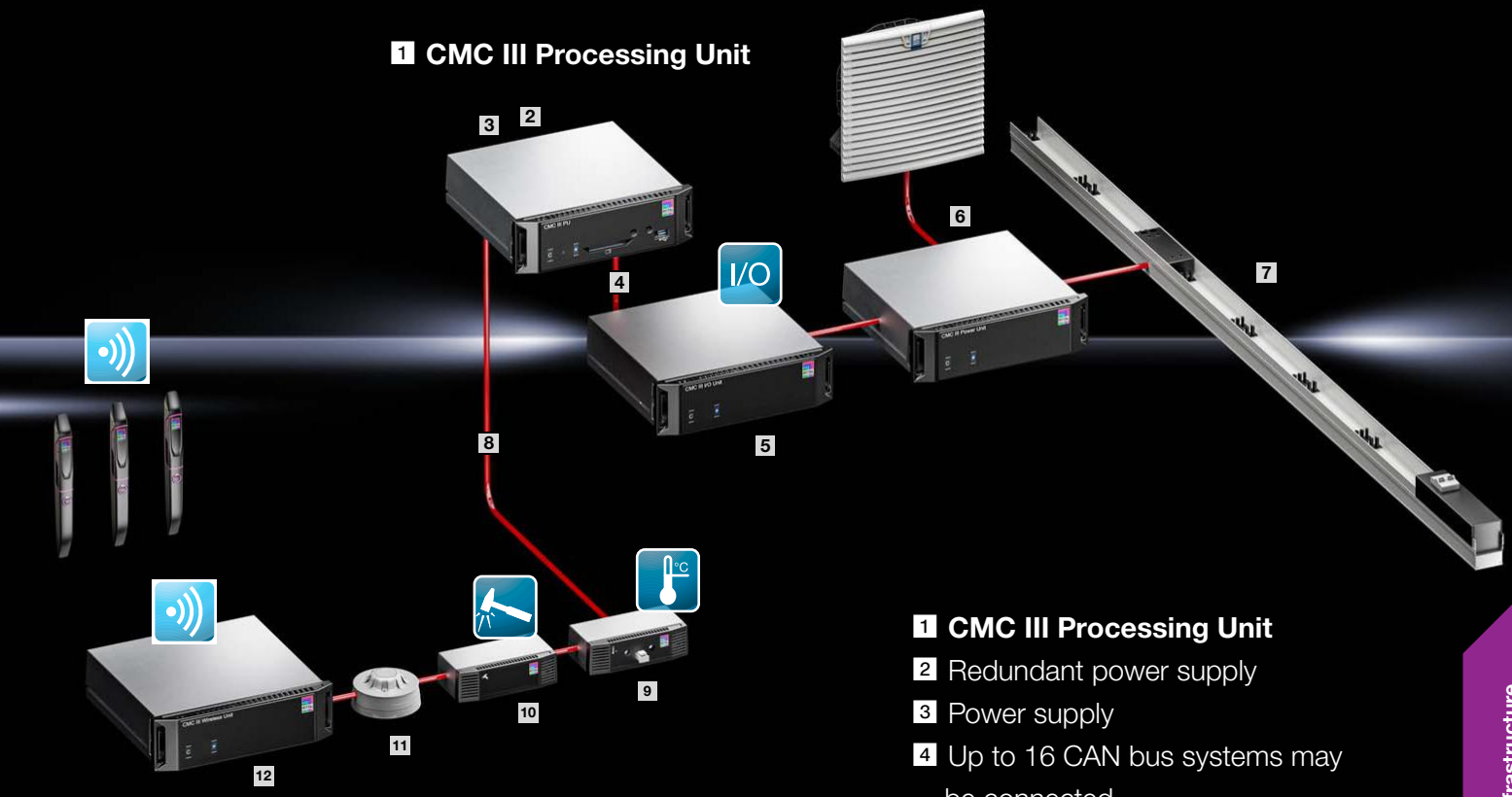
Our service experts would be pleased to offer you their advice on our full range of customer services:

- Construction, installation and commissioning
- Fast trouble-shooting
- Inspection
- Leak test
- Professional maintenance
- Original spare parts
- Individual service contracts
- Efficiency and system consulting
- Modernisation

We would be pleased to visit you in person.

CMC III – Monitoring system

Computer Multi Control (CMC) is an alarm system for network and server enclosures, standard enclosures, containers and rooms.



1 CMC III Processing Unit
2 Redundant power supply
3 Power supply
4 Up to 16 CAN bus systems may be connected
5 CMC III I/O unit
6 CMC III power unit
7 CMC III PSM measurement bar for direct connection
8 Up to 16 CAN bus systems may be connected
9 CMC III temperature sensor
10 CMC III vandalism sensor
11 CMC III smoke alarm
12 CMC III Wireless Unit with radio comfort handles VX

Liquid Cooling Packages DX

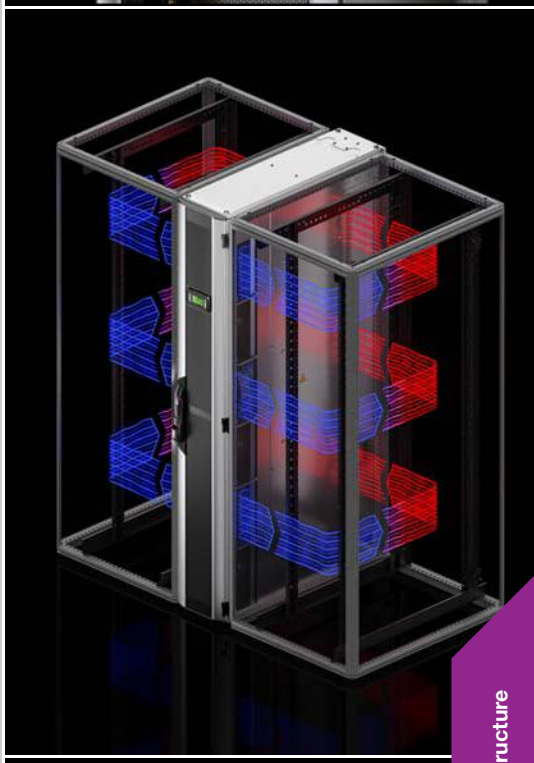
The new output categories for suite cooling

LCP DX – An innovative solution for both rack and suite cooling

- Cooling of closed and open IT racks with high heat losses in the output categories 12 kW, 20 kW and 35 kW
- Cooling of IT equipment in uncooled IT rooms or decentralised data centre applications (edge)
- Ideal for IT cooling in small and medium-sized enterprises (SMEs)
- 35 kW DX/FC variant saves energy by using indirect free cooling
- With suite cooling, additional equipment such as UPS, printers and other equipment in the installation room are cooled at the same time

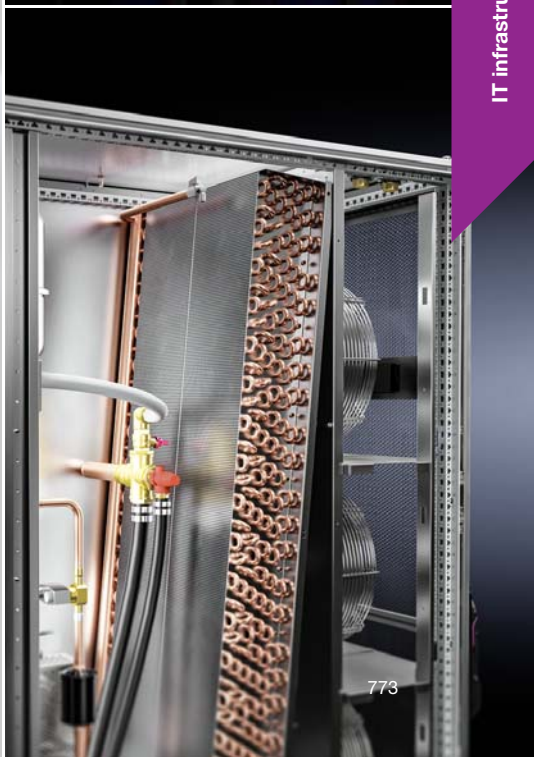
How are the LCP DX units used?

- LCP rack DX units cool up to two closed IT racks to the left and right of the unit. The cold air is blasted in front of the slightly recessed 482.6 mm (19″) level across the entire height of the LCP DX and drawn in by the IT equipment. The warm air expelled to the rear is drawn in again across the full height of the LCP DX at the rear and cooled.
- LCP Inline DX units cool multiple open IT racks in suites on both the left and right. To this end, the cold air from the LCP Inline DX is blasted into the cold aisle and drawn in by the IT equipment via the perforated front doors of the IT racks. The air heated by the IT hardware is blasted into the hot aisle via the perforated rear door of the IT rack and from there, is drawn in via the perforated rear door of the LCP Inline DX and cooled again. Aisle containment separates the air in the cold/hot aisle.
- In both cases, air baffle plates on the 482.6 mm (19″) level separate the cold and hot air within the IT rack.



Customer benefits

- Active cooling circuit with speed-regulated components for demand-based cooling
- Regulated to the IT inlet temperature
- Hot spot cooling directly at the point of heat generation
- All waste heat from the IT equipment is dissipated and emitted to the surrounding environment at the site of the external condenser
- Depending on the application, this may be combined with integral rack or room extinguisher systems



Liquid Cooling Package

Accessories for IT cooling Page 784 **Network/server racks VX IT** Page 686 **System accessories** Page 877

Applications:
- Ideal for IT cooling of small and medium-sized locations
- One or two racks can be cooled separately

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Control of the server inlet temperature
- Thanks to the speed-regulated compressor, the cooling output is ideally adapted to actual requirements
- With redundant temperature sensor integrated at the air end as standard
- Specific maintenance of the LCP DX due to separation of cooling and server racks

Functions:
- The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high-performance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room

IT monitoring:
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Temperature control:
- Linear fan control
- Inverter-controlled compressor

Material:
- Sheet steel, spray-finished

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Cooling medium:
- Refrigerant

Optional:
- Humidifier
- Dehumidification and reheater
- Condensate drain pump
- Higher cooling output
- Low-temperature/high-temperature condenser (-40 °C/+53 °C)

Note:
- Variant with UL approval available on request

LCP rack DX, LCP rack DX/FC

Model No.	Packs of	**3313.290**	**3313.410**	**3313.420**	Page
Design		DX	DX	DX	
Modulation range kW		5 - 20	3 - 12	3 - 12	
Total cooling output/Number of fan modules kW		**20 / 4**	**12 / 4**	**12 / 4**	
Width mm		300	300	300	
Height mm		2000	2000	2000	
Depth mm		1200	1000	1200	
Type of electrical connection		Connection clamp	Connection clamp	Connection clamp	
Installation in bayed enclosure suite		Flush	Flush	Flush	
Rated operating voltage V, ~, Hz		380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	
Pre-fuse (T) A		32	20	20	
Air throughput at max. cooling output m^3/h		4800	4800	4800	
Fans may be exchanged with the system operational		■	■	■	
EC fan		■	■	■	
SNMP card		■	■	■	
Rated current max. A		12.4	7.5	7.5	
Cooling medium		Refrigerant	Refrigerant	Refrigerant	
Refrigerant		R410a	R410a	R410a	
Duty cycle %		100	100	100	
Operating temperature range		+5 °C...+35 °C	+5 °C...+35 °C	+5 °C...+35 °C	
Weight as delivered kg		239.0	181.0	201.0	
Also required					
Condenser unit	1 pc(s).	3311.363	3311.360	3311.360	785

Liquid Cooling Package

Accessories for IT cooling Page 784 **Network/server racks VX IT** Page 686 **Aisle containment** Page 788

Applications:
- Ideal for IT cooling of small and medium-sized locations
- One or two racks can be cooled separately

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Temperature monitoring and control
- With redundant temperature sensor integrated at the air end as standard
- Thanks to the speed-regulated compressor, the cooling output is ideally adapted to actual requirements
- Specific maintenance of the LCP DX due to separation of cooling and server racks
- Using LCP DX/FC variants in combination with indirect free cooling helps to save operating costs

Functions:
- The LCP is designed for siting within a bayed enclosure suite. Hot air is drawn in from the aisle at the rear of the device, cooled by the high-capacity compact impellers, and blown back into the room or cold aisle after cooling.
- The LCP DX/FC variants include both a refrigerant and a water/glycol heat exchanger. There is an additional free cooler integrated into the external condenser.
- Absorbed thermal energy is emitted to the ambient air at the external condenser location, without heating up the installation room

IT monitoring:
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Temperature control:
- Linear fan control
- Inverter-controlled compressor

Material:
- Sheet steel, spray-finished

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Optional:
- Humidifier
- Dehumidification and reheater
- Condensate drain pump
- Higher cooling output
- Air filter
- Low-temperature/high-temperature condenser (-40 °C/+53 °C)

Note:
- Variant with UL approval available on request

LCP Inline DX, LCP Inline DX/FC

Model No.	Packs of	**3313.390**	**3313.430**	**3313.440**	**3313.450**	Page
Design		DX	DX	DX	DX	
Modulation range kW		5 - 20	3 - 12	3 - 12	8 - 35	
Total cooling output/Number of fan modules kW		**20 / 4**	**12 / 4**	**12 / 4**	**35 / 3**	
Width mm		300	300	300	600	
Height mm		2000	2000	2000	2000	
Depth mm		1200	1000	1200	1000	
Type of electrical connection		Connection clamp	Connection clamp	Connection clamp	Connection clamp	
Installation in bayed enclosure suite		Flush	Flush	Flush	Flush	
Rated operating voltage V, ~, Hz		380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	
Pre-fuse (T) A		32	20	20	40	
Air throughput at max. cooling output m^3/h		4800	4800	4800	9900	
Fans may be exchanged with the system operational		■	■	■	■	
EC fan		■	■	■	■	
SNMP card		■	■	■	■	
Rated current max. A		12.4	7.5	7.5	22.4	
Cooling medium		Refrigerant	Refrigerant	Refrigerant	Refrigerant	
Refrigerant		R410a	R410a	R410a	R410a	
Duty cycle %		100	100	100	100	
Operating temperature range		+5 °C...+35 °C	+5 °C...+35 °C	+5 °C...+35 °C	+5 °C...+35 °C	
Weight as delivered kg		239.0	181.0	201.0	300.0	
Also required						
Condenser unit	1 pc(s).	3311.363	3311.360	3311.360	3311.370	785

Liquid Cooling Package

LCP Inline DX, LCP Inline DX/FC

Model No.	Packs of	**3313.460**	**3313.470**	**3313.480**	Page
Design		DX/FC	DX	DX/FC	
Modulation range kW		8 - 35	8 - 35	8 - 35	
Total cooling output/Number of fan modules kW		**35 / 3**	**35 / 3**	**35 / 3**	
Width mm		600	600	600	
Height mm		2000	2000	2000	
Depth mm		1000	1200	1200	
Type of electrical connection		Connection clamp	Connection clamp	Connection clamp	
Installation in bayed enclosure suite		Flush	Flush	Flush	
Rated operating voltage V, ~, Hz		380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	380 - 480, 3~, 50/60	
Pre-fuse (T) A		50	40	50	
Air throughput at max. cooling output m^3/h		9900	9900	9900	
Fans may be exchanged with the system operational		■	■	■	
EC fan		■	■	■	
SNMP card		■	■	■	
Rated current max. A		31.6	22.4	31.6	
Cooling medium		Refrigerant	Refrigerant	Refrigerant	
Refrigerant		R410a	R410a	R410a	
Duty cycle %		100	100	100	
Operating temperature range		+5 °C...+35 °C	+5 °C...+35 °C	+5 °C...+35 °C	
Weight as delivered kg		398.0	300.0	398.0	
Also required					
Condenser unit	1 pc(s).	3311.380	3311.370	3311.380	785

Rittal Service.

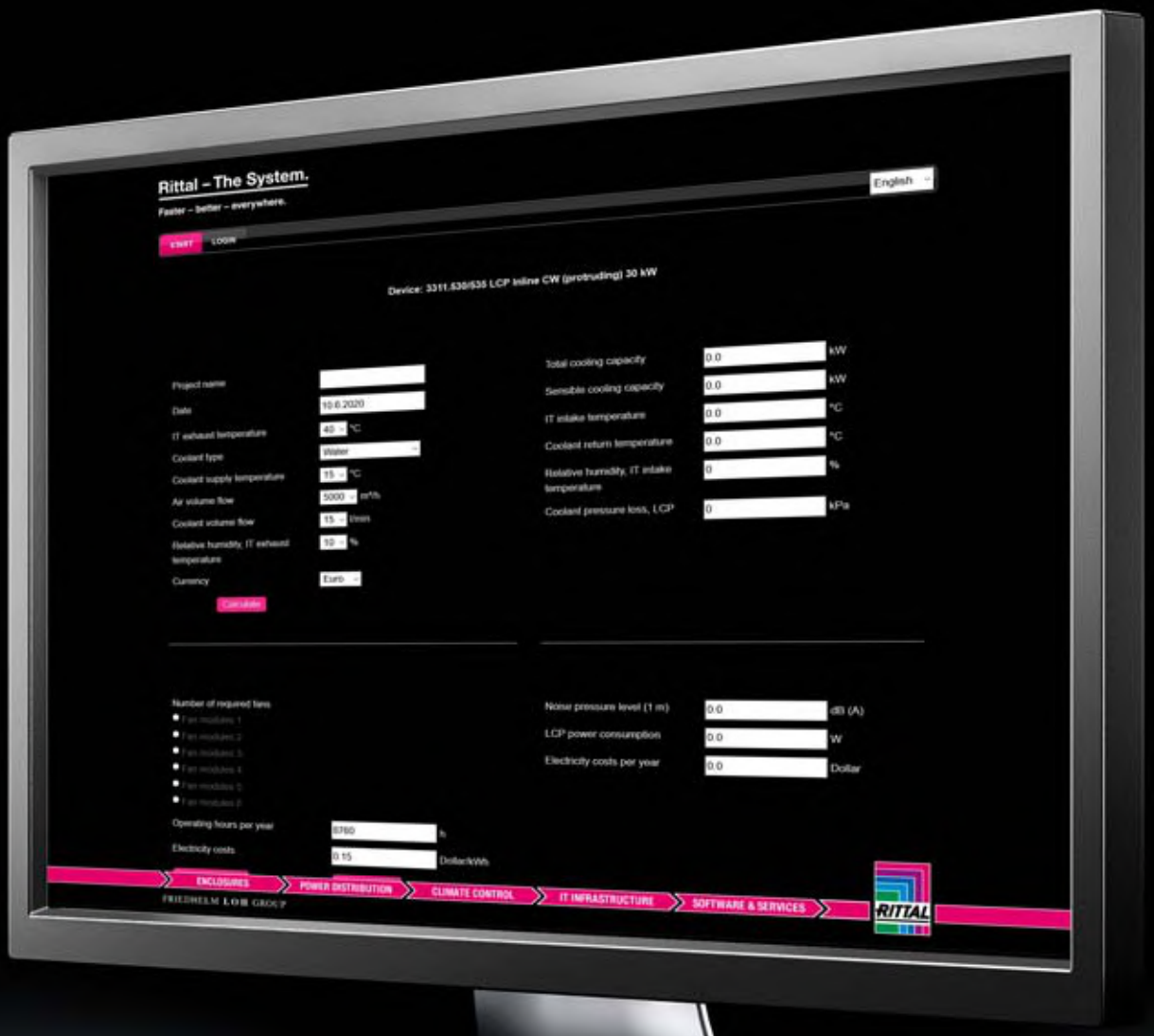
Rittal IT health check – do you know the real condition of your data centre?

Upon request, we can perform a free health check on your data centre:

- Evaluation of your current solution
- Assessment of the risk of obsolescence
- Analysis of energy consumption
- Due consideration of current laws and regulations
- Elaboration of optimal measures, including individual guidance on actions to safeguard your efficiency and availability

IT cooling calculator

For simple calculation of the required cooling output of LCP CW cooling units



Configure online at
www.rittal.com/configurators

Liquid Cooling Packages CW

High-performance cooling

LCP CW – Efficient high-performance cooling

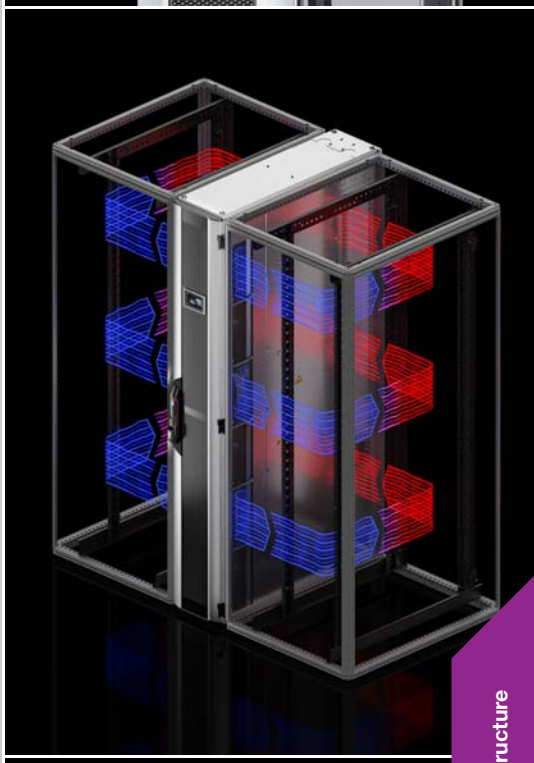
- Cooling of closed and open IT racks with high heat losses of up to 53 kW
- Cooling of IT equipment in uncooled IT rooms or decentralised data centre applications (edge)
- Ideal for IT cooling in medium and large data centre infrastructures as well as high-performance computing (HPC)
- Saves energy by using indirect free cooling
- Cooling of very high heat losses with a small footprint (HPC)

How are the LCP CW units used?

- LCP rack CW units cool up to two closed IT racks to the left and right of the unit. The cold air is blasted in front of the slightly recessed 482.6 mm (19″) level across the entire height of the LCP rack CW and drawn in by the IT equipment. The warm air expelled to the rear is drawn in again across the full height of the LCP rack CW at the rear and cooled.
- LCP Inline CW units cool multiple open IT racks in suites on both the left and right. Cold air is blasted into the cold aisle via the perforated front door or at the side of the LCP Inline CW, and from here, is drawn in by the IT equipment via the perforated front doors of the IT racks. Warm air from the IT hardware is blasted into the hot aisle via the perforated rear door of the IT rack and from there, is drawn in via the perforated rear door of the LCP Inline CW and cooled again.
- In both cases, air baffle plates on the 482.6 mm (19″) level separate the cold and hot air within the IT rack.

A configurable portfolio

- Cooling output is achieved with high water inlet temperatures, which enables a high proportion of free cooling
- High water return temperatures with LCP CW glycol variants help to improve heat recovery
- All waste heat from the IT systems is dissipated out of the building and emitted to the surrounding environment at the installation site of the external chiller or free cooler
- Depending on the application, this may be combined with integral rack or room extinguisher systems
- A calculator enables the simple selection of Liquid Cooling Packages CW for rack and suite cooling in the IT infrastructure.
- IT cooling calculator: www.rittal.com/configurators



Liquid Cooling Package

Accessories for IT cooling Page 784 **Network/server racks VX IT** Page 686 **Chillers for IT cooling** Page 795

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Control of the server inlet temperature
- With redundant temperature sensor integrated at the air end as standard
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- The separation of cooling and enclosure prevents the ingress of water into the server enclosure
- A footprint of max. 0.36 m^2 for all cooling services
- Improved heat recovery, thanks to high water return temperatures when using LCP CW glycol variants, for example in combination with a heat pump
- Optimum access for maintenance and servicing from the front and rear
- Tool-free replacement of the fan modules

Functions:
- The LCP draws in the air at the sides at the rear of the server enclosures, cools it using high-performance compact impellers, and blows the cooled air back into the front part of the server enclosure at the sides

IT monitoring:
- Monitoring of all system-relevant parameters such as server air intake temperature, server waste air temperature, water inlet/return temperature, water flow, cooling output, fan speed, leakage
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Temperature control:
- Linear fan control
- Two-way control valve

Material:
- Sheet steel, spray-finished

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Optional:
- Fully integrated fire detection and extinguisher system
- Automatic server enclosure door opening
- Direct connection of additional CMC III sensors is supported
- Racks 2200 mm high

LCP Rack CW

Model No.	Packs of	**3313.130**	**3313.230**	**3313.250**	**3313.260**	Page
Design		CW	CW	CWG	CW	
Total cooling output/Number of fan modules kW		**10 / 1 20 / 2 30 / 3**	**10 / 1 20 / 2 30 / 3**	**38 / 4 40 / 5 44 / 6**	**48 / 4 51 / 5 53 / 6**	
Number of fan modules in supplied state		1	1	4	4	
Width mm		300	300	300	300	
Height mm		2000	2000	2000	2000	
Depth mm		1000	1200	1200	1200	
Type of electrical connection		Connector	Connector	Connector	Connector	
Installation in bayed enclosure suite		Flush	Flush	Flush	Flush	
Rated operating voltage V, ~, Hz		200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	
Air throughput at max. cooling output m^3/h		4800	4800	4800	8000	
Fans may be exchanged with the system operational		■	■	■	■	
EC fan		■	■	■	■	
Optimised condensate management, even at low water inlet temperatures		–	–	■	–	
Water inlet temperature °C		15	15	15	15	
Permissible operating pressure (p. max.) bar		10	10	10	10	
Duty cycle %		100	100	100	100	
Water connection		DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	
Weight as delivered kg		225.0	230.0	280.0	260.0	
Accessories						
Fan module	1 pc(s).	3313.016	3313.016	3313.016	3313.016	787
Touchscreen display, colour	1 pc(s).	3311.030	3311.030	3311.030	3311.030	785
Connection hose	2 pc(s).	3311.040	3311.040	3311.040	3311.040	786
Condensate pump	1 pc(s).	–	–	3312.012	–	786

Liquid Cooling Package

Accessories for IT cooling Page 784 **Network/server racks VX IT** Page 686 **Chillers for IT cooling** Page 795 **Aisle containment** Page 788

Benefits:
- Maximum energy efficiency due to EC fan technology and IT-based control
- Minimal pressure loss at the air end, which in turn minimises the power consumption of the fans
- Optimum adaptability due to dynamic, continuous control of the cold water volume flow
- By using high water inlet temperatures, the proportion of indirect free cooling is increased, which in turn reduces operating costs
- Targeted cooling output due to modular fan units
- Fan modules configurable as n+1 redundancy
- Standard 3-phase connection for electrical redundancy
- With redundant temperature sensor integrated at the air end as standard
- The separation of cooling and enclosure prevents the ingress of water into the server enclosure
- A footprint of max. 0.36 m^2 for all cooling services
- Improved heat recovery, thanks to high water return temperatures when using LCP CW glycol variants, for example in combination with a heat pump
- Optimum access for maintenance and servicing from the front and rear
- Tool-free replacement of the fan modules

Functions:
- The hot air is drawn in from the room or hot aisle at the rear of the device and expelled at the front into the cold aisle after cooling. With this product, a raised floor is not necessary.

IT monitoring:
- Monitoring of all system-relevant parameters such as server air intake temperature, server waste air temperature, water inlet/return temperature, water flow, cooling output, fan speed, leakage
- Direct connection of the unit via SNMP over Ethernet
- Integration into RiZone

Temperature control:
- Linear fan control
- Two-way control valve

Material:
- Sheet steel, spray-finished

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Optional:
- Direct connection of additional CMC III sensors is supported
- Racks 2200 mm high

LCP Inline CW, LCP Inline CWG

Model No.	Packs of	**3313.530**	**3313.540**	**3313.550**	**3313.560**	**3313.570**	Page
Design		CW	CW	CWG	CW	CWG	
Total cooling output/Number of fan modules kW		**10 / 1 20 / 2 30 / 3**	**18 / 2 27 / 3 30 / 4**	**20 / 2 31 / 3 35 / 4**	**48 / 4 51 / 5 53 / 6**	**38 / 4 40 / 5 44 / 6**	
Number of fan modules in supplied state		1	2	2	4	4	
Width mm		300	300	300	300	300	
Height mm		2000	2000	2000	2000	2000	
Depth mm		1200	1200	1200	1200	1200	
Type of electrical connection		Connector	Connector	Connector	Connector	Connector	
Installation in bayed enclosure suite		Set forward	Flush	Flush	Set forward	Set forward	
Rated operating voltage V, ~, Hz		200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	200 – 240, 1~, 50/50 346 – 415, 3~, 50/60	200 – 240, 1~, 50/60 346 – 415, 3~, 50/60	
Air throughput at max. cooling output m^3/h		4800	5000	5000	8000	4800	
Fans may be exchanged with the system operational		■	■	■	■	■	
EC fan		■	■	■	■	■	
Optimised condensate management, even at low water inlet temperatures		–	–	■	–	■	
Water inlet temperature °C		15	15	15	15	15	
Permissible operating pressure (p. max.) bar		10	10	10	10	10	
Duty cycle %		100	100	100	100	100	
Water connection		DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	DN 40 (G 1½" external thread)	
Weight as delivered kg		230.0	220.0	280.0	260.0	280.0	
Accessories							
Fan module	1 pc(s).	3313.016	3313.016	3313.016	3313.016	3313.016	787
Touchscreen display, colour	1 pc(s).	3311.030	3311.030	3311.030	3311.030	3311.030	785
Connection hose	2 pc(s).	3311.040	3311.040	3311.040	3311.040	3311.040	786
Rear adaptor		see page	–	–	see page	see page	786
Condensate pump	1 pc(s).	–	–	3312.012	–	3312.012	786

Accessories

Air duct

for wall-mounted cooling unit Blue e+ IT
For cold air infeed in front of the 482.6 mm (19") level in combination with the Blue e+ IT wall-mounted cooling unit.

Benefits:
– One air duct for different enclosure depths

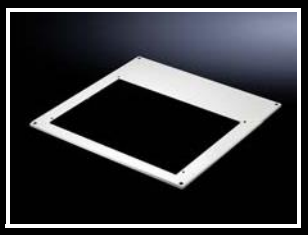
Installation options:
– Mounting in the bottom 3 U of the 482.6 mm (19") level

Material:
– Sheet steel, spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Width mm	Height U	For enclosure depth mm	Packs of	Model No.
482.6	3	800 1000 1200	1 pc(s).	**3312.820**



Roof plate

for roof-mounted cooling unit Blue e+ IT
For mounting the roof-mounted cooling unit. The cut-out in the roof plate is arranged so that the roof-mounted cooling unit is positioned centrally on the enclosure.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

To fit Model No.	Width mm	Depth mm	Packs of	Model No.
3312.800	800	800	1 pc(s).	**3312.805**
3312.800	800	1000	1 pc(s).	**3312.806**
3312.800	800	1200	1 pc(s).	**3312.807**

Assembly

– Use the assembly parts of the existing solid roof plate for assembly

Sheet steel door

for wall-mounted cooling unit Blue e+ IT
For mounting the roof-mounted unit. The cut-out in the door is arranged so that the roof-mounted cooling unit is positioned centrally on the door.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Sheet steel door at the rear, 180° hinges
– Comfort handle for profile half-cylinders with security lock 3524 E
– Assembly parts

To fit Model No.	Width mm	Height mm	Packs of	Model No.
3312.810	600	2000	1 pc(s).	**3312.815**
3312.810	800	2000	1 pc(s).	**3312.816**

Refrigerant lines

for LCU DX

For connecting the internal and external unit of the LCU DX. Consisting of intake gas line and liquid line. The refrigerant lines are insulated.

Design	Length m	Product-specific scope of supply	Packs of	**Model No.**
LCU DX 3 kW	20	Intake gas line ½" Liquid line ¼"	1 pc(s).	**3311.495**
LCU DX 6.5 kW	20	Intake gas line ⅝" Liquid line ⅜"	1 pc(s).	**3311.496**

Touchscreen display, colour

for LCP Rack/Inline CW

The display offers the opportunity of directly monitoring key functions of the LCP, and implementing settings.

Supply includes:
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**3311.030**

Condenser unit

for LCP DX

The condenser units are necessary for operating refrigerant-based LCPs. Depending on the version, the units have an external condenser and fan, or additionally a free cooler. The variant with free cooler is needed for the combination variant LCP DX/FC. The units are suitable for roof and wall mounting.

Material:
– Sheet steel, spray-finished

Surface finish:
– Powder-coated, zinc-plated

Colour:
– RAL 9003

Supply includes:
– Assembly parts

W x H x D mm	1303 x 915 x 620	2282 x 818 x 552	2219 x 1099 x 850	3048 x 1270 x 1100
Design	Condenser	Condenser	Condenser	Condenser with free cooler
Temperature control	Speed-controlled fan	Speed-controlled fan	Speed-controlled fan	Speed-controlled fan
No. of fans	2	3	2	2
Rated operating voltage V, ~, Hz	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60	230, 1~, 50/60
Cooling medium	-	-	-	Water/glycol
Refrigerant	R410a	R410a	R410a	R410a
Weight kg	29.0	68.0	210.0	285.0
Packs of	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Model No.	**3311.360**	**3311.363**	**3311.370**	**3311.380**

Accessories

Vertical shielding

for VX IT
To block the airflow on the left and right of the 482.6 mm (19") level, for enclosure height 2000 mm.

Design:
– Self-adhesive on one side

Material:
– Cellular PU foam
– Flame-inhibiting to UL 94 (HF1)

Colour:
– Anthracite

Sealing between	W x H x D mm	For enclosure width mm	Packs of	Model No.
LCP and 482.6 mm (19") level	210 x 1915 x 110	800	1 pc(s).	**3301.320**
LCP and 482.6 mm (19") level	110 x 1915 x 110	600	1 pc(s).	**3301.370**
Side panel and 482.6 mm (19") level	84 x 1910 x 84	600	1 pc(s).	**3301.380**
Side panel and 482.6 mm (19") level	184 x 1910 x 84	800	1 pc(s).	**3301.390**

Connection hose

for LCP Rack/Inline CW
Flexible connection hose at the bottom or top, may be cut to required length, including union nuts on both ends for connecting the LCP to existing pipe-work.

Material:
– EPDM

Length m	Water connections	Packs of	Model No.
1.8	1½"	2 pc(s).	**3311.040**

Rear adaptor

for LCP Inline CW
May be positioned to the rear of the set forward LCP Inline CW to close the existing gap to the rear section.

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Supply includes:
– Adaptor
– With roof plate
– Assembly parts

Width mm	Height mm	Depth mm	Packs of	Model No.
300	2000	200	1 pc(s).	**3312.081**

Condensate pump

for LCP Rack/Inline CW
For discharging condensate with LCP Rack/Inline CW applications.

Benefits:
– Plug & play installation in all LCP Rack/Inline CW variants

Supply includes:
– Condensate pump
– Condensate hose
– Condensate sensor
– Connection cable
– Assembly parts

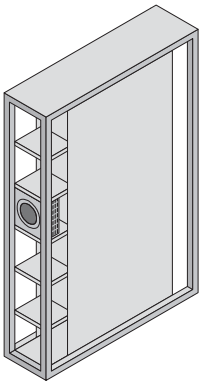
Packs of	Model No.
1 pc(s).	**3312.012**

Fan module

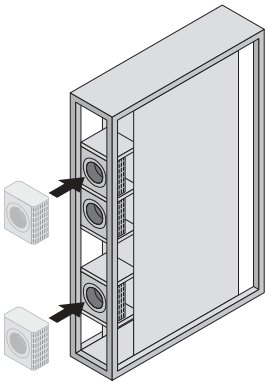
for LCP Rack/Inline CW

To increase the cooling output, individual fan modules may be retro-fitted into the LCPs. Additional integration can also achieve redundancy and reduce the electrical power consumption of the LCP.

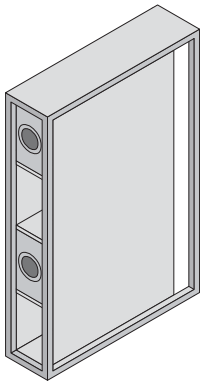
Packs of	**Model No.**
1 pc(s).	**3313.016**



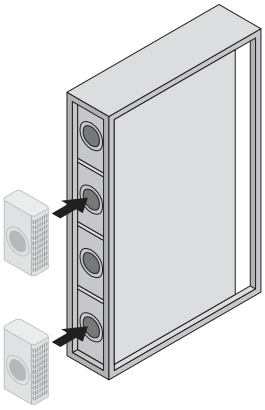
The LCP 3313.130/.230/.530 (max. 30 kW) is supplied with one fan module as standard.



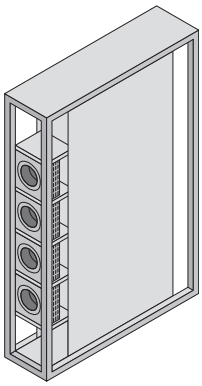
To achieve the max. cooling output, the customer/service should install two additional fan modules.



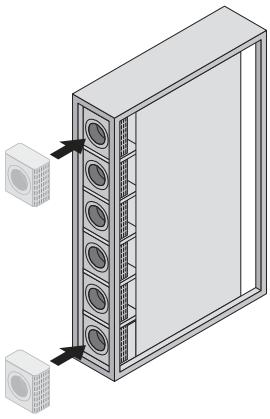
The LCP 3313.540/.550 (max. 30/28 kW) is supplied with two fan modules as standard.



To achieve the max. cooling output, the customer/service should install two additional fan modules.



The LCP 3313.250/.260/.560/ .570 (max. 35/53/53/35 kW) is supplied with four fan modules as standard.



To achieve the max. cooling output, the customer/service should install two additional fan modules.

Note:

– The max. cooling output for the relevant LCP variants can be found in the order tables from page 774

Aisle containment

Liquid Cooling Package Page 772 **Network/server racks VX IT** Page 686

Slimline door element with viewing window and sliding door. Stable roof elements in a composite material with a high level of light permeability. Where required, safety glass may also be used. The aisle width is 1,200 mm.

Applications:
– Depending on the application, aisle containment may be used with CRAC systems or LCP Inline as hot or cold aisle containment

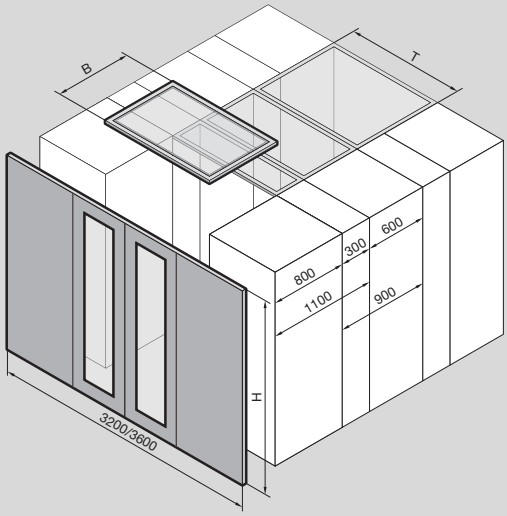
Benefits:
– Increased energy efficiency and performance capability of climate control
– Easily installed and retrofitted, as it is fully compatible with the VX IT rack system
– An inexpensive way to boost the performance of your existing installation, lengthening the investment cycle until a replacement needs to be purchased

Functions:
– Aisle containment is a combination of door and roof components which facilitate consistent separation of the hot and cold air in the data centre. Such separation is pivotal to saving energy and increasing the efficiency of the available climate control technology.

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Photo shows a configuration example with equipment not included in the scope of supply



Model No.	Packs of	3311.161	3311.163	3311.170	3311.180	3311.190	3311.200	3311.210	3311.270	3311.280	Page
Design		Door element	Door element	Roof element centre	Roof element centre	Roof element centre	Roof element centre	Roof element centre	Roof element start/end	Roof element start/end	
For enclosure depth mm		1000	1200	–	–	–	–	–	–	–	
Width (B) mm		3200	3600	600	800	300	900	1100	600	800	
Height (H) mm		2000	2000	–	–	–	–	–	–	–	
Depth (T) mm		–	–	1200	1200	1200	1200	1200	1200	1200	
Weight as delivered kg		120.0	150.0	30.0	35.0	20.0	30.0	33.0	30.0	28.0	

Roof-mounted fans

for VX, VX IT, for the office sector

This roof ventilation concept offers many performance, assembly and cost benefits associated when using integrated ventilation systems. The roof-mounted fan may be ordered with and without a roof plate. For the version with roof plate, the roof-mounted fan is pre-installed. This roof plate also has an integral rear cable entry via a sliding plate with rubber cable clamp strip. Another outstanding feature is the enormous volumetric flow combined with exceptionally low noise levels, making it ideal for use in sensitive office areas.

Benefits:
- Easy assembly, the roof plate variant eliminates the need to create mounting cut-outs
- Fully wired ready for connection

Material:
- Sheet steel, spray-finished

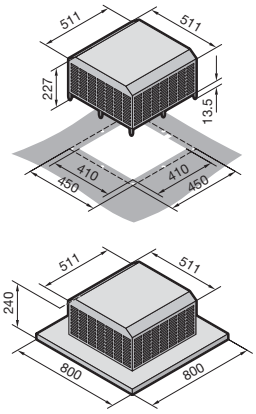
Colour:
- RAL 7035

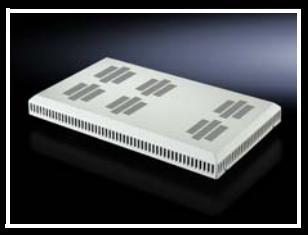
Supply includes:
- Roof-mounted fans
- Assembly parts

Note:
- Reduction in the specified air throughput to 800 m^3/h at 40 Pa counterpressure using two vented base/plinth trim panels

Model No.	3164.230	3164.620
Packs of	1 pc(s).	1 pc(s).
Rated operating voltage V, ~, Hz	230, 1~, 50/60	230, 1~, 50/60
Air throughput, unimpeded air flow m^3/h	1500	1500
Design	Without roof plate	With roof plate
Rated current A	0.3 / 0.35	0.3 / 0.35
Power consumption W	68 / 81	68 / 81
Width mm	511	800
Height mm	227	240
Depth mm	511	800
Required mounting cut-out mm	410 x 410	–
Fan	Radial	Radial
Operating temperature range	+20 °C...+55 °C	+20 °C...+55 °C
Noise level dB(A)	40	40
Weight kg	19.5	30.0

Accessories:
- Digital enclosure internal temperature display and thermostat integrated into a patch panel 1 U, see page 546
- Digital enclosure internal temperature display and thermostat , see page 546
- Thermostat, see page 547





Fan mounting plate

for VX IT, TE

For active ventilation. The unit may optionally be extended with additional fans.

Applications:
– For use in the cut-out integrated into the roof plate

Colour:
– RAL 7035

Supply includes:
– 1 fan unit
– 2 fans
– 1 thermostat
– Connection cable, open-ended
– Assembly parts

Note:
– The noise level given refers to the first fan
– Connection via distributor box or country-specific connector

Accessories:

– Fan expansion kit, see page 790

W x H x D mm	Installation options	No. of fans	Number of fans (max.)	Air through-put per fan m^3/h	Output per fan W	Rated operating voltage V, ~, Hz	Operating tempera-ture range	Noise level per fan dB(A)	Packs of	**Model No.**
200 x 59 x 550	In VX IT with W x D (mm): 600 x 600 / 600 x 800 / 600 x 1000 / 600 x 1200 / 800 x 600	2	3	160 / 180	15 / 14	230, 1~, 50/60	+5 °C...+5 5 °C	37	1 pc(s).	**5502.010**
340 x 54 x 550	In VX IT with W x D (mm): 800 x 800 / 800 x 1000 / 800 x 1200 In TE 8000 with W x D (mm): 600 x 600 / 600 x 800 / 600 x 1000 / 800 x 600 / 800 x 800 / 800 x 1000	2	6	160 / 180	15 / 14	230, 1~, 50/60	+5 °C...+5 5 °C	37	1 pc(s).	**5502.020**

Fan expansion kit

For use as a stand-alone fan, and for upgrading various fan units or to supplement the fan mounting plate.

Supply includes:
– Fan
– Connection cable (0.61 m)
– Assembly parts

W x H x D mm	Air through-put (unimpeded air flow) m^3/h	Rated operating voltage V, ~, Hz	Power consumption W	Operating temperature range	Noise level dB(A)	Packs of	**Model No.**
119 x 119 x 38	160 / 180	230, 1~, 50/60	15 / 14	-10 °C...+55 °C	37 / 37	1 pc(s).	**7980.000**
119 x 119 x 25	108 / 120	230, 1~, 50/60	14 / 12	-20 °C...+70 °C	34 / 34	1 pc(s).	**7980.100**
119 x 119 x 38	184	48 (DC)	7.7	-20 °C...+70 °C	43	1 pc(s).	**7980.148**

Cover plates for fan panels

for FlatBox
To cover unused fan panels when using fans in the FlatBox.

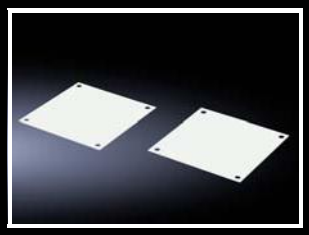
Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	**Model No.**
6 pc(s).	**7507.760**



Vent cover

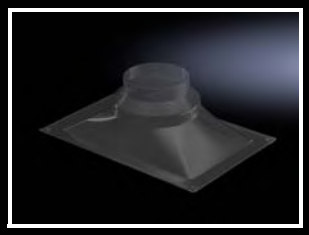
for VX, VX IT
The ideal addition for incorporating sealed racks into an existing central climate control system. The stepped connection is suitable for standard pipe diameters, thereby ensuring effective cooling thanks to targeted air exchange inside the rack.

Material:
– PET-G

Colour:
– Transparant

Supply includes:
– Assembly parts

Note:
– Required cut-out in the roof plate (W x D): 380 x 230 mm



W x H x D mm	Diameter of hose connection mm	Weight kg	Packs of	**Model No.**
450 x 144 x 300	150/200	0.96	1 pc(s).	**7826.750**

CRAC systems

Precision climate control units for data centres

CRAC DX/CW – Climate control for large data centres

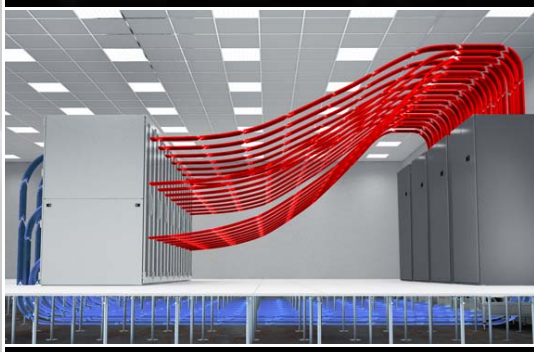
- Cooling with CRAC systems is ideal for data centres with low to medium outputs per IT rack
- The racks being cooled must be open
- Precision climate control units with accurate temperature and humidity control
- Reliable, familiar technology with a tried-and-tested track record spanning several decades

How are CRAC systems used?

- Downflow: CRAC units extract hot air from the data centre via the unit's open roof. The air is cooled via a heat exchanger and then blasted into the raised floor by fans.
- Upflow: CRAC units extract hot air via the front of the device and blast cold air back into the room via the open roof
- In both cases, air baffle plates on the 482.6 mm (19˝) level separate the cold and hot air within the IT rack

Tried-and-tested technology

- All waste heat from the IT systems is dissipated out of the building and emitted to the surrounding environment
- There are a range of different options (humidifier, reheater, filter, pressure regulator etc.) available
- Downflow units (raised floor required)
- Upflow units (raised floor not required)
- DX, CW or dual fluid (DX + CW) versions available
- Direct free cooling is supported



IT chillers

Precision climate control units for high cooling outputs

IT chillers – A continuous supply of cool water

- The ideal solution for server rooms and data centres with medium to high outputs which are supplied with cold water by one or more chillers (e.g. for CRAC CW or LCP CW systems, depending on the heat loss of the IT systems)
- Numerous configurations of the many different variants cover a broad spectrum of required cooling outputs
- Integral or additional free cooling option available for all variants

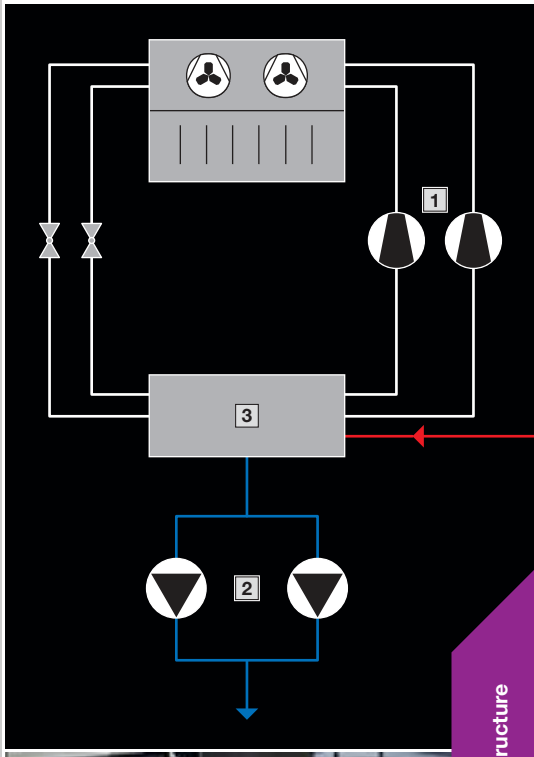
How do IT chillers work?

- IT chillers are air-cooled and suitable for outdoor siting
- Using large heat exchangers and high-end scroll compressors enables a high level of energy efficiency; depending on the cooling output, cold water is produced on the evaporator coil by one or two independent cooling circuits
- From the evaporator coil, one or two pumps (redundant) supply the equipment (CRACs or LCPs) with cold water. The use of an inverter gives the system a high degree of flexibility to vary the water flow-rate as well as the available pressure (to support large distances between chillers and server rooms)
- The smart device software manages thermal load fluctuations via the regulated use of all or selected compressors and via the pump speed
- At low external temperatures (below the water return temperature), the free cooling function is activated, which helps to save energy by shutting off selected compressors

1 Two independent cooling circuits (two or more compressors)
2 Two pumps (one operational, one in standby mode)
3 Evaporator coil

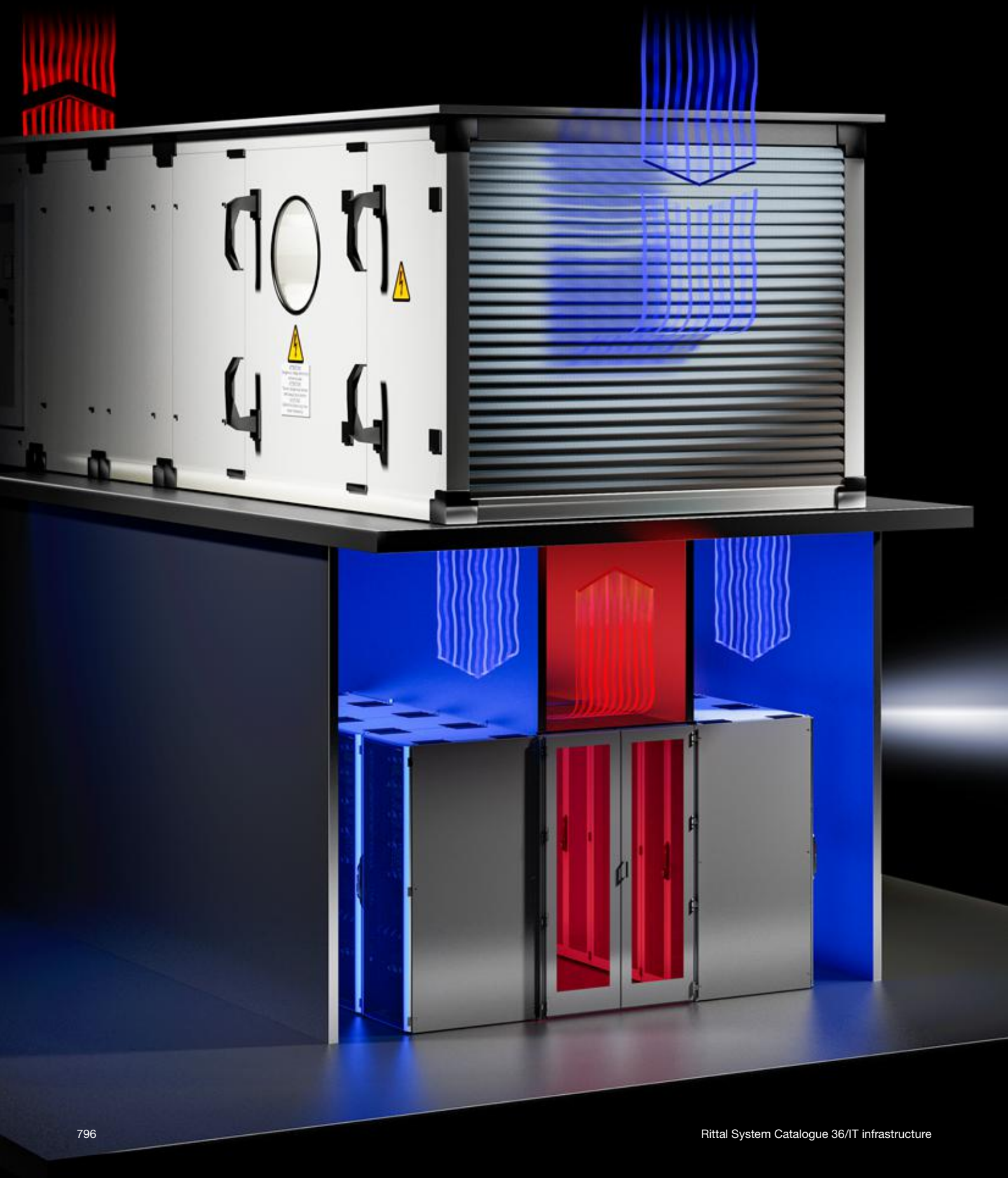
Customer benefits

- Low operating costs, thanks to a high level of energy efficiency and free cooling option
- Redundancy in selected chillers, thanks to two integrated, independent cooling circuits (over 50 kW) and two redundant pumps
- System redundancy permits cascading of multiple chillers and automatic operational rotation, either a preset times or in the event of a malfunction
- Remote monitoring via Ethernet and polling of status and alarm messages, plus remote operation of device functions



Air Handling Unit

High-efficiency room cooling for large data centres



AHU – Cooling for large data centres

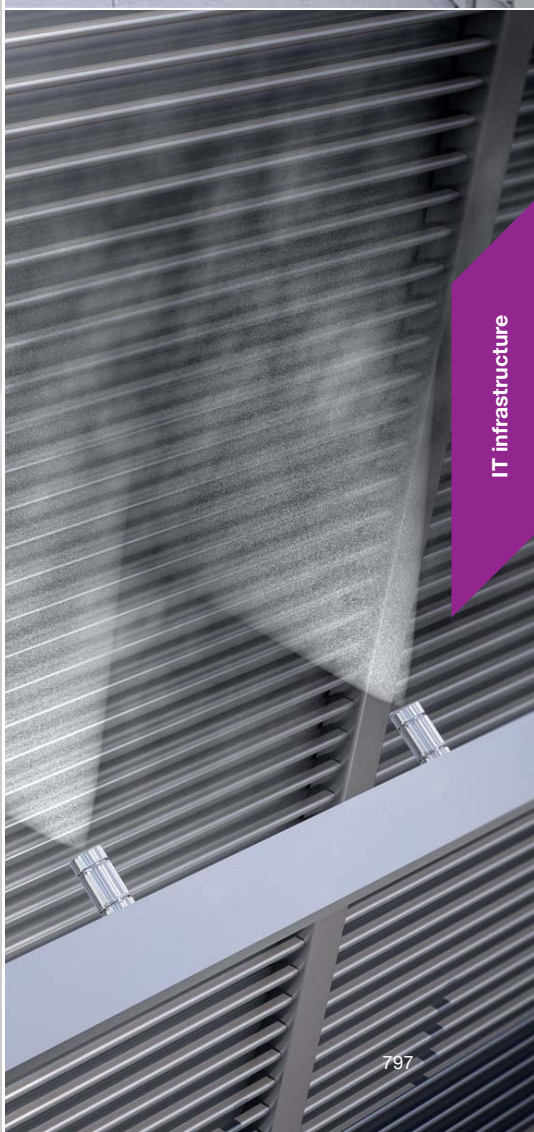
- An air handling unit or ventilation system is generally used in large data centres (hyperscale) where large volumes of air need to be moved
- The ventilation system makes extensive cooling output available without taking up space in the data centre. As the thermal loads being dissipated are generally high, a very large volumetric efficiency of the air-flow is required.

How does an AHU work with adiabatic cooling in the data centre?

- In the ventilation system, the hot waste air from the IT systems emits its energy to the cooler ambient air
- Energy is exchanged in the AHU via heat exchangers, e.g. cross-flow (indirect cooling)
- The data centre air does not come into contact with potentially contaminated exterior air
- Air is fed into the data centre via air ducts
- If the exterior air is cooler than the waste air from the IT systems, an active cooling system is not needed (indirect free cooling)
- As the exterior temperature rises, this period can be extended by spraying the heat exchanger with water (adiabatic cooling, or evaporation cooling)
- In enclosure suites, cold and hot zones are separated via aisle partitioning
- Air baffle plates on the 482.6 mm (19″) level separate cold and hot air within the IT rack

Integration into the building structure

- The AHU and its infrastructure (air ducts etc.) must be incorporated into the data centre structure. For this reason, AHUs tend only to be used with new-build data centres.
- Retrofitting existing building infrastructures is usually too costly and labour-intensive
- AHUs are custom-designed for each specific project – please contact us for advice



Rittal – The System.

Faster – better – everywhere.

IT monitoring

CMC III – Monitoring system

CMC III system representation 800
CMC III Processing Unit / Compact system overview 802
CMC III Processing Unit / Compact 804

CMC III system components

Control units for CMC III Processing Unit 806
Sensors for direct connection 807
Interface for CMC-TC sensors 808
Products with CAN bus interface for direct connection 809

CMC III access

System representation 810
System components 812

CMC III Automatic Door Opening (ADO)

Automatic Door Opening (ADO) 816
Door control module 817

CMC III accessories

CMC III power pack 818
Programming cable 818
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Connection cable/extension 819
Connection/extension cable RJ12 819
Mounting unit, 1 U 819
Cable clamp strap 819
Mounting unit 820
CMC III LTE unit 820
Interference suppressor for fans 820
LED light strip 821

Monitor/keyboard unit

Monitor/keyboard unit, 1 U 822

Fire alarm and extinguisher system

Fire alarm and extinguisher system DET-AC III master 823
Early fire detection system EFD III 824
Add-on unit DET-AC III slave 825
Accessories 826

Management software

RiZone 828
IT management software 830

Your benefits

- A better overview of your IT infrastructure
- Enhanced security
- Automated processes
- Exceptional cost efficiency
- Huge energy savings
- Simple project management
- Fast installation
- Flexible, individual solutions using standard products from Rittal
- High standard of quality with coordinated standard products

Sample applications

1 CMC III, see page 802
2 Liquid Cooling Package LCP, see page 772
3 Monitor/keyboard unit, see page 822
4 Integrated Web interface of a CMC III Processing Unit, see page 806
5 Radio comfort handle VX, see page 947
6 Fire alarm and extinguisher system DET-AC master, see page 823
7 Add-on unit DET-AC III slave, see page 825
8 CMC III sensors, see page 807
9 RiZone, see page 828

9

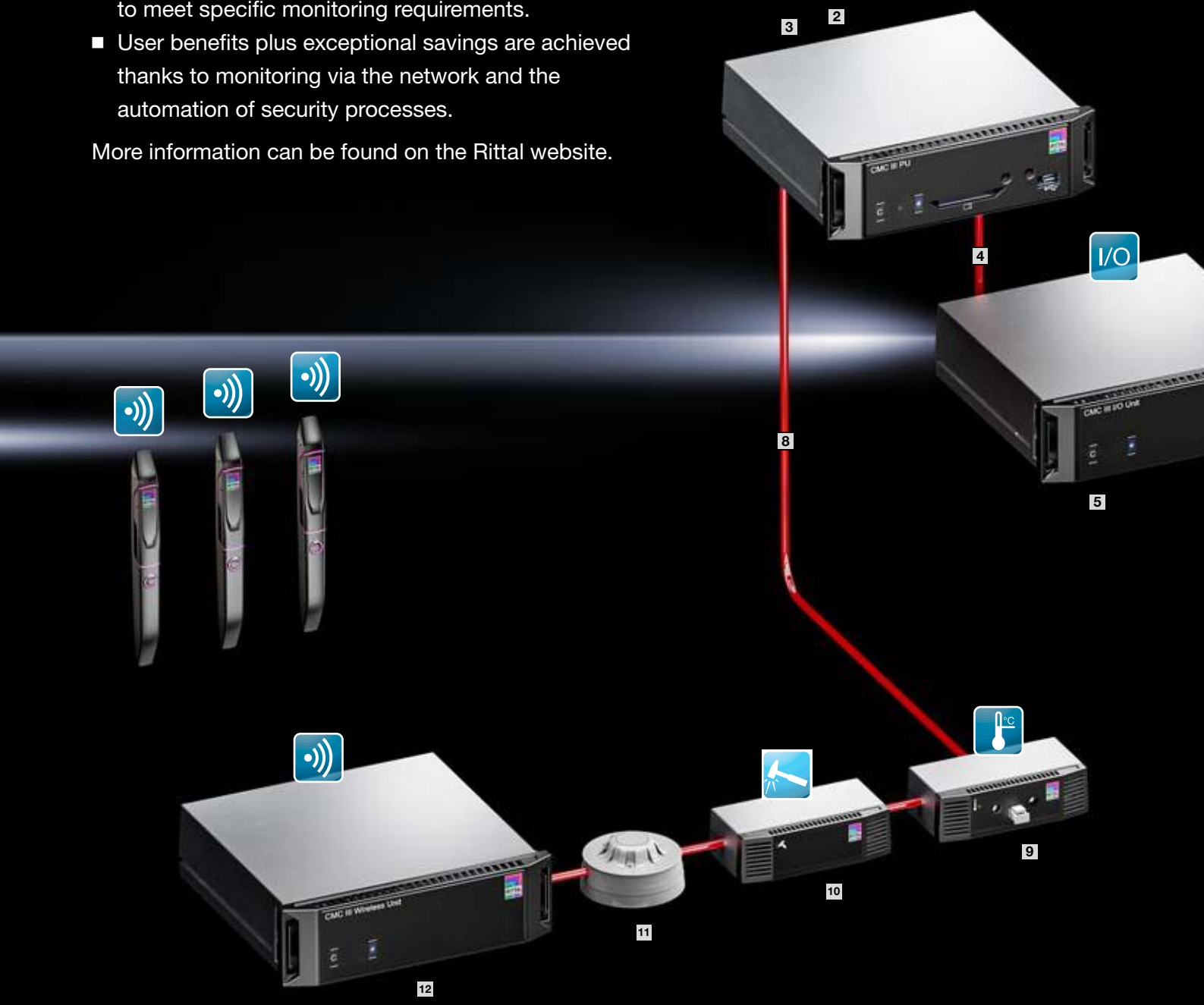
CMC III – Monitoring system

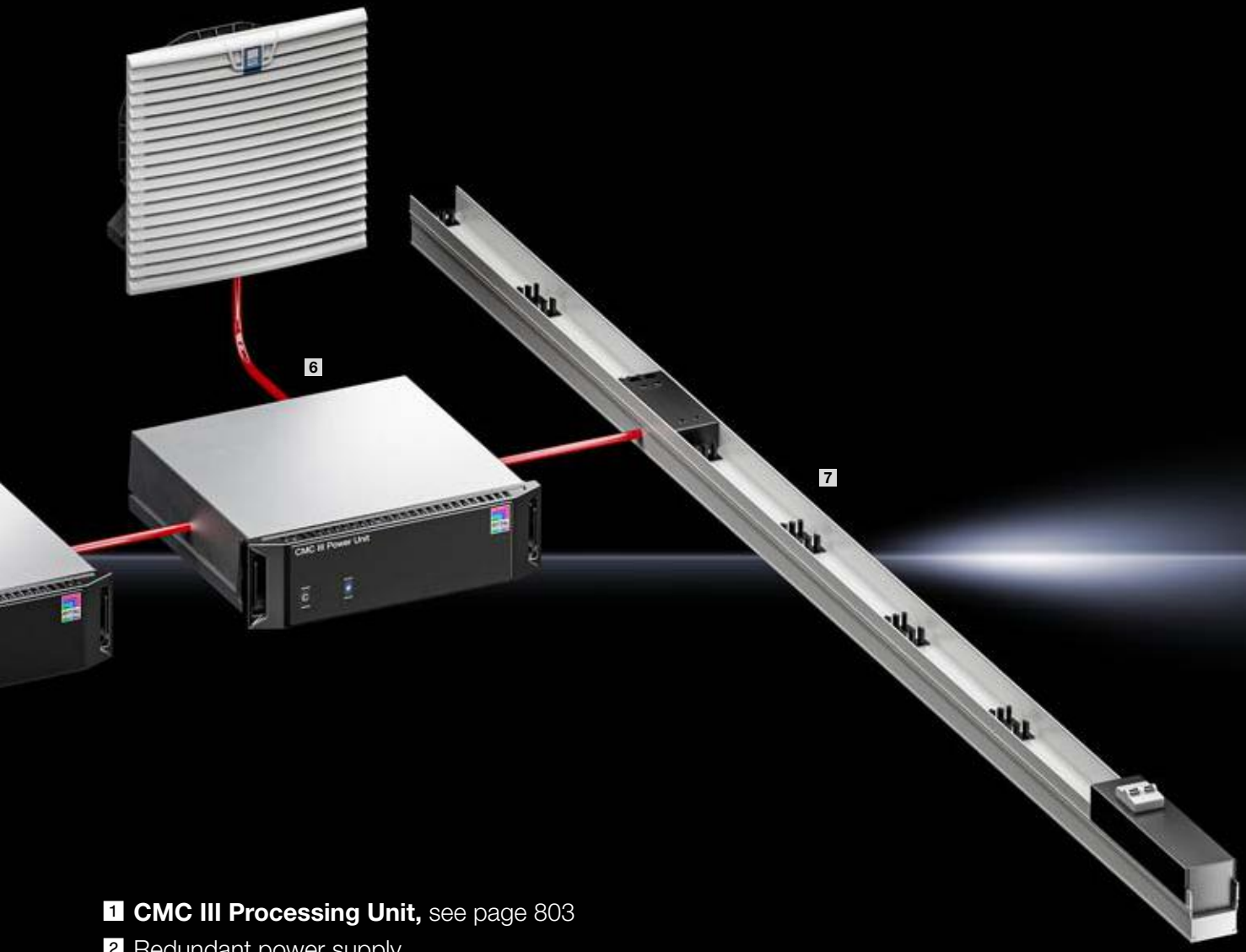
Computer Multi Control (CMC) is a monitoring system system for network and server racks, standard enclosures, containers and rooms.

- It monitors temperatures, humidity, access, smoke, energy and many other physical ambient parameters.
- The system is modular and can be flexibly adapted to meet specific monitoring requirements.
- User benefits plus exceptional savings are achieved thanks to monitoring via the network and the automation of security processes.

More information can be found on the Rittal website.

1 CMC III Processing Unit

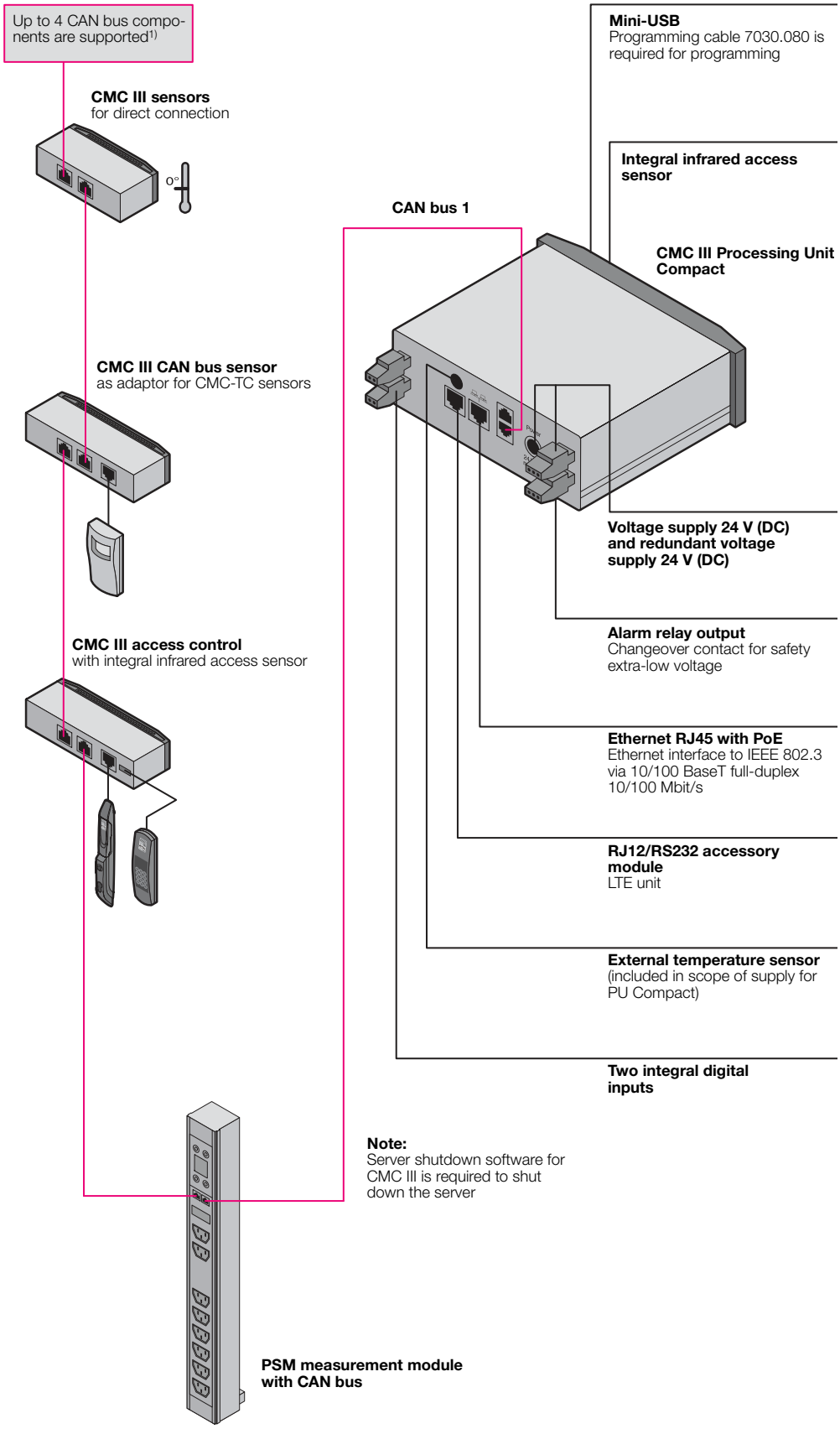




1 **CMC III Processing Unit,** see page 803
2 Redundant power supply
3 Power supply
4 Up to 16 CAN bus systems may be connected
5 CMC III I/O unit
6 CMC III power unit
7 CMC III PSM measurement bar for direct connection
8 Up to 16 CAN bus systems may be connected
9 CMC III temperature sensor
10 CMC III vandalism sensor
11 CMC III smoke alarm
12 CMC III Wireless Unit with radio comfort handles VX

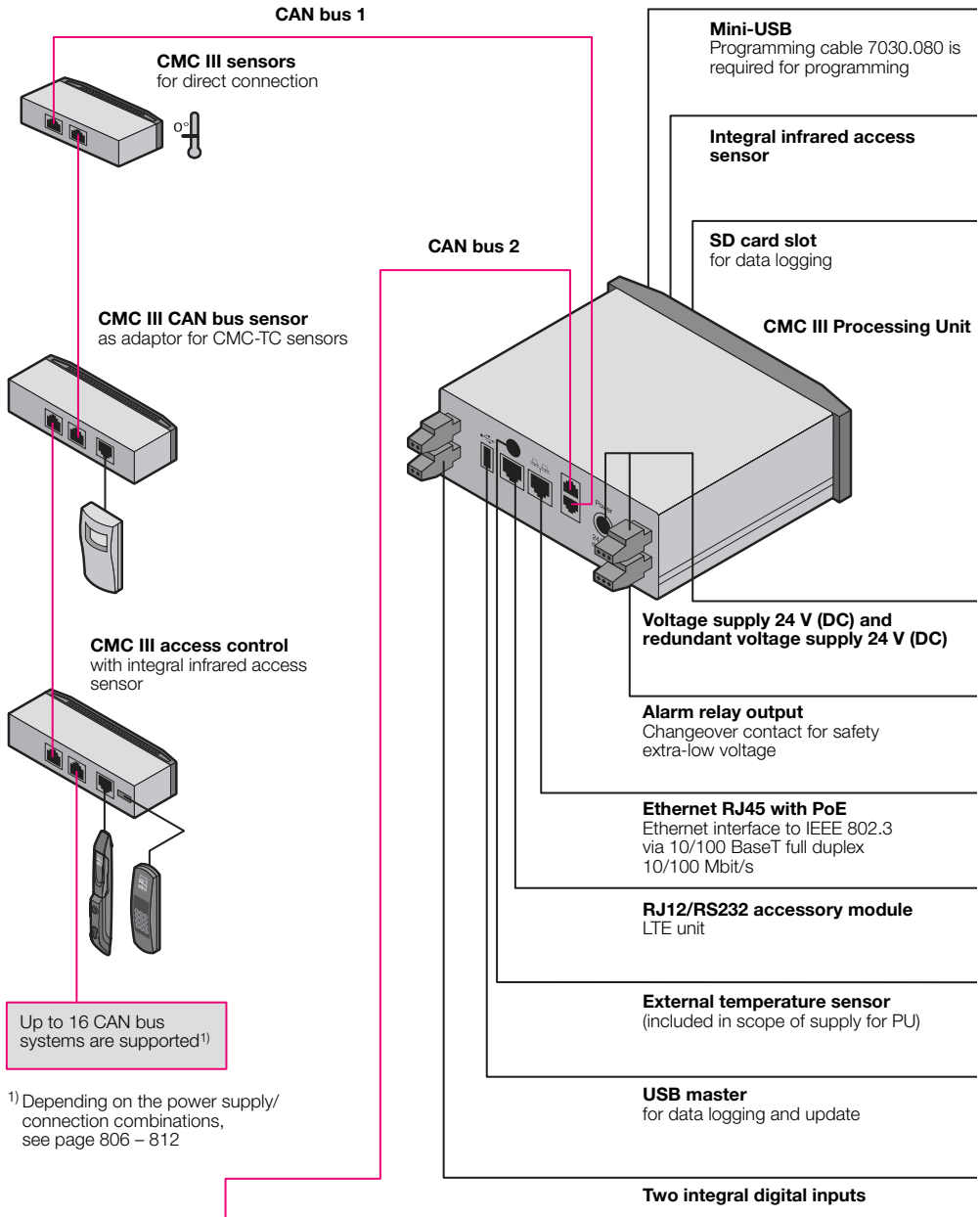
CMC III Processing Unit Compact

System overview



[1)] Depending on the power supply/ connection combinations, see page 806 – 812

System overview



	Model No.
CMC III I/O unit	7030.040

	Model No.
CMC III power unit	7030.050

CMC III Processing Unit / Compact

System overview Page 802/803 **Basic modules and connection accessories** From page 806

Central unit of the CMC III monitoring system.
In addition, up to 32/4 external sensors/CAN-Bus connection units may be connected to the integral sensors.

Applications:
– Monitoring of enclosures, rooms and containers in the IT environment

Benefits:
– High redundancy due to redundant power supply
– Cost saving due to optimal space utilisation and connection technique
– High flexibility due to modular system
– High reliability due to permanent monitoring of the physical enclosure parameters

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Basic system
– External temperature sensor incl. connection cable (supplied loose)
– Infrared access sensor (integrated)
– Assembly parts for mounting on surfaces

Note:
– Unencrypted protocols may be deactivated for enhanced network security

Approvals:
– UL
– cUL

Photo shows a configuration example with equipment not included in the scope of supply

CMC III Processing Unit / Compact

		Packs of	CMC III Processing Unit	CMC III Processing Unit Compact
W x H x D mm			138 x 40 (1 U) x 120 + 12 (front assembly)	138 x 40 (1 U) x 120 + 12 (front assembly)
Operating temperature range			0 °C…+45 °C	0 °C…+45 °C
Operating humidity range			5 – 95% relative humidity, non-condensing	5 – 95% relative humidity, non-condensing
Sensors/CAN bus connection units			max. 32	max. 4
Max. overall cable length for CAN bus			2 x 50 m	1 x 50 m
Model No.		1 pc(s).	**7030.000**	**7030.010**
Interfaces	Network interface (RJ45)		Ethernet to IEEE 802.3 via 10/100BaseT with PoE	Ethernet to IEEE 802.3 via 10/100BaseT with PoE
	Front USB interface		Mini USB for system setting	Mini USB for system setting
	Rear USB interface		for USB stick for data recording up to 32 GB	–
	Front SD-HC slot		1 x up to 32 GB for data recording	–
	Rear serial RS232 (RJ12)		1 x for connecting LTE unit with SMS functions	1 x for connecting LTE unit with SMS functions
	CAN bus (RJ45)		2 x for max. 16 sensors each = 32 sensors in total (quantity restriction, see page 806 – 812)	1 x for max. 4 sensors (quantity restriction, see page 806 – 812)
Inputs and outputs	Digital inputs (terminal)		2	2
	Relay output (terminal)		Changeover contact max. 24 V (DC), 1 A	Changeover contact max. 24 V (DC), 1 A
Operation/ signals	Switch/concealed reset button		1 x acknowledgement button/1 x service button	1 x acknowledgement button/1 x service button
	Piezo signal generator		1	1
	LED display		1 x multi-colour OK/warning/alarm	1 x multi-colour OK/warning/alarm
	Rear LED		1 x for the network status	1 x for the network status
Protocols	Ethernet		TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, (S)FTP, HTTP(S), NTP, DHCP, DNS, SMTP(S), TLS, Syslog	TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, (S)FTP, HTTP(S), NTP, DHCP, DNS, SMTP(S), TLS, Syslog
Redundant power supply	Input 24 V (DC) (jack)		1 x for connecting the CMC III power pack	1 x for connecting the CMC III power pack
	Input 24 V (DC) (terminals)		1 x for direct connection or for connecting the CMC III power pack	1 x for direct connection or for connecting the CMC III power pack
	Power over Ethernet (PoE)		1 x 15.4 W	1 x 15.4 W
Functions	Time function		Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP	Real-time clock, energy-buffered (24 h) without battery/accumulator, with NTP
	User administration		Local, LDAP(S), Radius	Local, LDAP(S), Radius
	User interface		Integral Web server with flexible dashboard and mobile view	Integral Web server with flexible dashboard and mobile view
	Control room connection		Integral OPC-UA server, Modbus/TCP	Integral OPC-UA server, Modbus/TCP
	Video monitoring		Incorporation of 1 x network camera	–
Also required				
Mounting unit, 1 U		1 pc(s).	7030.088	7030.088
CMC III power pack		1 pc(s).	7030.060	7030.060
Programming cable		1 pc(s).	7030.080	7030.080

System components

Control units for CMC III Processing Unit

Dimensions:
– W x H x D:
138 x 40 x 120 + 12 mm front frame

Material:
– Plastic

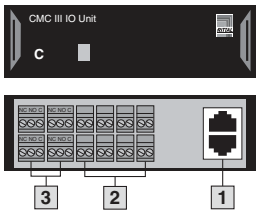
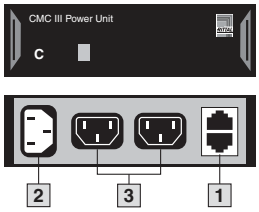
Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Basic system
– Assembly parts for mounting on surfaces

Also required:
– CAN bus connection cable, see page 818
– CMC III Processing Unit, see page 804
– Mounting unit, 1 U, see page 819

		1 Connection RJ45 2 x CAN bus	2 Inputs	3 Outputs	Model No. Packs of 1	PU Compact Maximum quantity	PU Maximum quantity
	**CMC III I/O unit** In the software, the relays can be linked to measurement values so that they are actuated under certain circumstances. This allows devices to be controlled and messages to be forwarded. Cannot be operated with the Processing Unit Compact. – Inputs for potential-free signals – Relay output (changeover contact) can handle loads of up to max. 24 V (DC) / 1 A	■	8 x digital	4 x relays	**7030.040**	–	16
	**CMC III power unit** The input is switched to the outputs via two relays. In this way, the outputs can be linked to measured values for automatic switching. Fan regulation is one example of a potential application. Manual switching via the CMC III operating interface is likewise supported. Each output is monitored individually, and various values are measured. Cannot be operated with the Processing Unit Compact. – Switches 2 outputs – Measures voltage, current, power, work – Application: Controlling and switching fans, heaters, equipment – Note: For controlling fans, one interference suppressor 7030.051 per fan is required	■	1 x C14 110 – 230 V 50/60 Hz	2 x C13 Aggregate current max. 10 A	**7030.050**	–	16

CMC III sensors for direct connection

CMC III sensors are used for monitoring the physical environment and can be connected directly to the PU via a CAN bus connection cable RJ45. The sensors may also be linked together to form a bus.

Dimensions:
- 7030.110/.111/.120/.130
  W x H x D: 80 x 30 x 40 mm
- 7030.140/.150/.190/.430/.440
  W x H x D: 110 x 30 x 40 mm
- 7030.400
  Ø x H: 100 x 60 mm

Material:
- Plastic

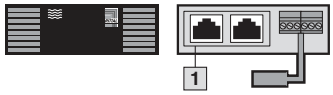
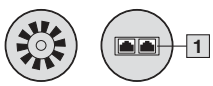
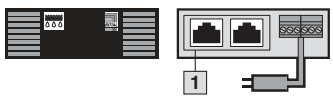
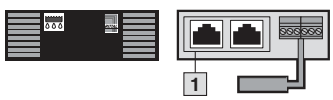
Surface finish:
- Front: Smooth
- Enclosure: Textured

Colour:
- Front: RAL 9005
- Enclosure: RAL 7035
- Smoke detector: White

Protection category IP to IEC 60 529:
- IP 30

Supply includes:
- Sensor
- Mounting plate
- Assembly parts

Also required:
- CAN bus connection cable, see page 818

		1 Connection RJ45 2 x CAN bus	2 Inputs	Model No. Packs of 1	PU Compact Maximum quantity	PU Maximum quantity
	Temperature sensor – External NTC sensor, 2 m cable – Measurement range for external sensors: -40 °C…+80 °C	■	–	**7030.110**	4	32
	Temperature/humidity sensor – Measurement range: 0 °C…+55 °C/ 5 – 95% rel. humidity	■	–	**7030.111**	4	32
	Infrared access sensor – Monitoring with reflector on the door, spacing adjustable	■	–	**7030.120**	4	32
	Vandalism sensor – Axis: x, y, z – Acceleration limits: -7...7 g, adjustable	■	–	**7030.130**	4	32
	**Analog airflow sensor** – External airflow sensor: 4 – 20 mA – Measurement range: 0.2 – 10 m/s – Application: Fans, filters, climate control devices	■	–	**7030.140**	4	10[1]
	Analog differential pressure sensor – Two pressure measuring points (infeed via hose) – Measurement range: -500 m Pa…+500 m Pa – Application: Cold aisle containment, raised floor	■	–	**7030.150**	4	32
	Universal sensor – Choice of digital inputs for an application: – Potential-free signals – S_0 input for energy measurement systems – 1 Wiegand interface (external access systems)	■	2 x digital may be switched over to pulse input S_0 or a Wiegand interface 1 x analog 4 – 20 mA	**7030.190**	4	32
	**Smoke detector** – Monitors the room air for smoke particles using an optical component	■	–	**7030.400**	4	32
	**Leak sensor** – Monitors a given point on the floor of the data centre or enclosure for liquids. The external sensor probe allows free selection of the point to be monitored.	■	–	**7030.430**	4	32
	**Leak sensor, 15 m** – Monitors a larger floor area for liquids using the 15 metre long detection cable. The sensor additionally indicates the section of cable where a leak has been detected.	■	–	**7030.440**	4	32

[1] Max. 5 pieces for power supply with PoE

System components

Interface for CMC-TC sensors

The CMC III CAN bus sensor supports the connection of selected sensors from the CMC-TC system to the current CMC III, allowing old applications to be upgraded with the CMC III Processing Unit / Compact.
As well as the two CAN bus connections, the unit also has another connection for one of the CMC-TC sensors. In this way, the unit functions as an interface between the CMC-TC sensor and the current CMC III Processing Unit, and adapts the sensor data to the CAN bus protocol.

Dimensions:
– W x H x D:
110 x 30 x 40 mm

Material:
– Plastic

Surface finish:
– Front: Smooth
– Enclosure: Textured

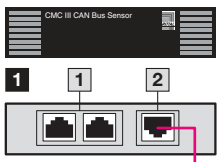
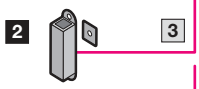
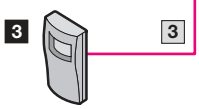
Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– Sensor
– Mounting plate
– Assembly parts

The following CMC-TC access sensors may connected to the CMC III CAN bus sensor:
– 1 x temperature sensor
– 1 x analog input 4 – 20 mA
– 5 x access sensors in series
– 1 x airflow sensor
– 1 x smoke detector
– 1 x motion detector
– 1 x digital input
– 1 x digital relay output
– 1 x voltage monitor
– 1 x 48 V voltage sensor
– 1 x leak sensor
– 1 x leak sensor, 15 m sensors
– 1 x door control unit (two connections)
– 1 x DET-AC Plus extinguisher system (three connections)
– 1 x DET-AC Plus early fire detection system (three connections)

Also required:
– CAN bus connection cable, see page 818

		1	2	3	Model No.	PU Compact	PU
		Connection RJ45 2 x CAN bus	Input RJ12	Output RJ12	Packs of	Maximum quantity	
	**1 CMC III CAN bus sensor** – For connecting one CMC-TC sensor	■	1 x	–	**7030.100** 1 pc(s).	4	32
	Connectable sensors (max. 1 sensor per CAN bus sensor)						
	**2 CMC III access sensor VX** – Sensor: Reed contact/magnet – Max. 5 reed contacts in series – 0.5 m cable included with the supply **Also required:** – Connection cable RJ12 for connecting a sensor, see page 819 – Extension cable RJ12 for connecting more sensors in series, see page 819	–	–	1 x	**7030.128** 1 pc(s).	–	–
	**3 CMC motion detector** – Sensor: Infrared – 2 m cable included with the supply	–	–	1 x	**7320.570** 1 pc(s).	–	–

Products with CAN bus interface for direct connection

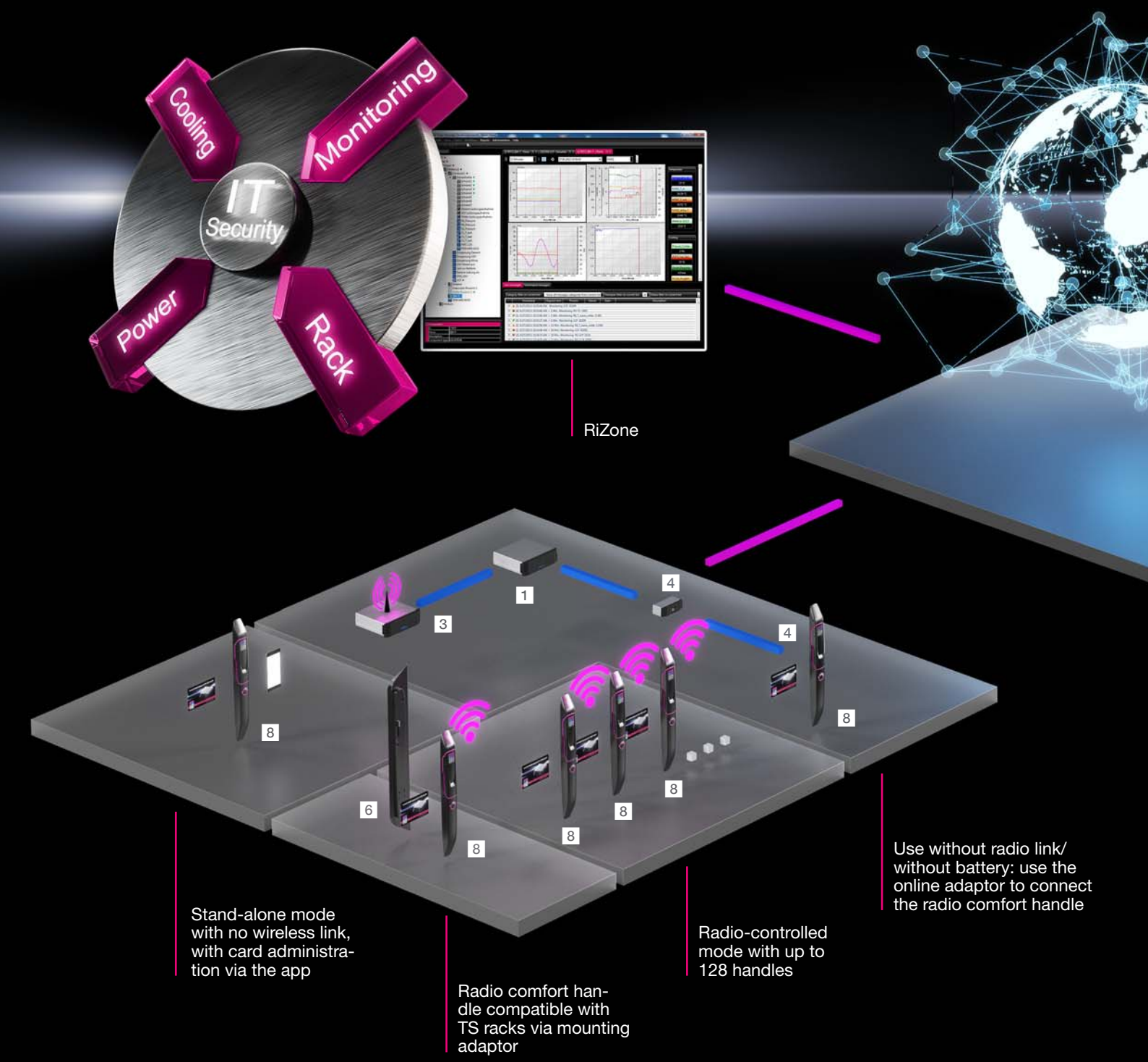
		Model No.	PU Compact	PU	Page
			Maximum quantity		
	PSM measurement bars 16 A, with 2 infeeds	7859.050	4	8	747
	PSM measurement bars 32 A, with 1 infeed	7859.053	4	8	747
	PSM measurement module with CAN bus, 8 x C13	7859.410	4	16	750
	PSM measurement module with CAN bus, 2 x C13, 4 x C19	7859.420	4	16	750
	PSM measurement module with CAN bus, 2 x C13, 4 x earthing-pin	7859.430	4	16	750
	Fire alarm and extinguisher system DET-AC III master	7338.121	4	16	823
	Add-on unit DET-AC III slave	7338.321	4	16	825
	Early fire detection system EFD III	7338.221	4	16	824
	NH measurement module for NH fuse-switch disconnectors, size 00	9343.070	4	8	333
	NH measurement module for NH fuse-switch disconnectors, size 1	9343.170	4	8	333
	NH measurement module for NH fuse-switch disconnectors, size 2	9343.270	4	8	333
	NH measurement module for NH fuse-switch disconnectors, size 3	9343.370	4	8	333

Accessories:

– CAN bus connection cable, see page 818

CMC III access

The secure solution



CMC III Processing Unit, see page 803

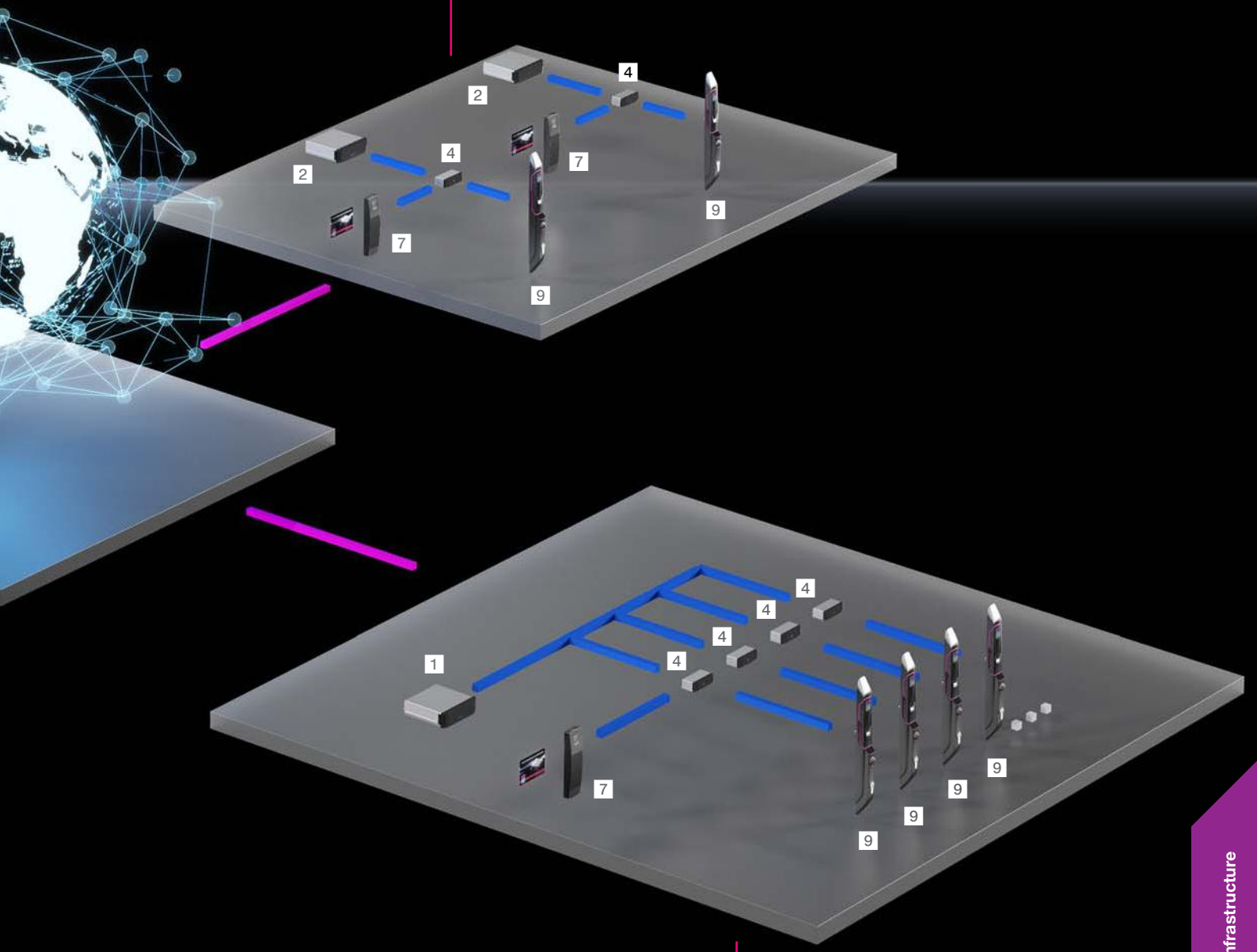
CMC III Processing Unit Compact, see page 802

CMC III Wireless Unit for radio comfort handle VX, see page 815

CMC III access control, see page 812

Online adaptor, see page 948

Distributed edge application
for individual racks



Transponder reader:
Activate up to 16 handles

Mounting adaptor, see page 948

Transponder reader for CMC III, see page 813

Radio comfort handle VX with card reader for VX, VX IT, see page 947

CMC III online comfort handle VX with master key function for VX, VX IT, see page 946

System components

CMC III access control

CMC III unit for controlling and monitoring access to enclosures. One handle and one reader unit may be connected to one CMC III access control. The handles can be linked to various numerical codes or transponder cards via the CMC III Processing Unit/Compact website, which means that all the handles connected to a CMC III Processing Unit/Compact can be controlled with just one reader unit. The integral infrared sensor also ensures that the status of the controlled door (open/closed) is monitored.

Dimensions:
– W x H x D:
110 x 30 x 40 mm

Sample applications:
– Record of every access and each time the door is opened, with user information and time stamp
– One central reader unit per CMC III system is supported
– Fixed allocation between handles and reader units
– Four-eyes principle
– Central administration of access rights across systems and locations with RiZone
– Activating the LED display in the handle

Material:
– Plastic

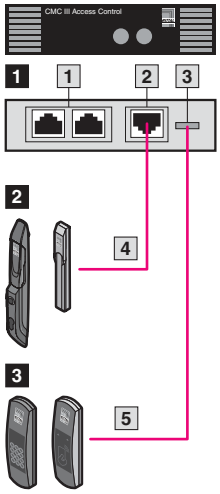
Surface finish:
– Front: Smooth
– Enclosure: Textured

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Protection category IP to IEC 60 529:
– IP 30

Supply includes:
– CMC III access control
– Mounting plate
– Assembly parts

Also required:
– CAN bus connection cable, see page 818



	Connection	Inputs		Outputs		Model No.	PU Compact	PU	Page
	1	2	3	4	5				
	RJ45 2 x CAN bus	RJ12	Flat-pin connector	RJ12	Flat-pin connector	Packs of 1	Maximum quantity		
1 CMC III access control – For connecting one handle and one reader unit to monitor a door – Integral IR access sensor	■	1 x	1 x	–	–	**7030.202**	2	16[1]	
Connectable handles and reader units (max. 1 handle and max. 1 reader unit per CMC access control)									
2 Handles **– CMC III online comfort handle VX** RAL 9005	–	–	–	1 x	–	**7030.611**	–	–	946
– Ergoform-S handle (electromagnetic, for TE 8000) RAL 7035	–	–	–	1 x	–	**7320.700**	–	–	949
3 CMC III reader units **– Coded lock** RAL 9005	–	–	–	–	1 x	**7030.223**	–	–	813
– Transponder reader RAL 9005	–	–	–	–	1 x	**7030.233**	–	–	813

[1] Max. 5 pieces for power supply with PoE

Coded lock

for CMC III

For managing access to doors.

Benefits:
- Individual codes with up to 8 digits
- Use of a read system for multiple handles is supported, provided this is connected to the same CMC III system
- High security standards thanks to the four-eyes principle

Installation options:
- On VX IT doors
- Adjacent to room doors

Functional principle:
- Direct connection to the CMC III Access Control or CMC III Door Control Module
- Optical (LED) and acoustic (alarm sound) status display
- Authorisations are managed via the CMC III system or RiZone
- Door opening with a maximum of two linked numerical codes (four-eyes principle)
- Control via CMC III of:
  - Online comfort handle VX
  - Automatic Door Opening System (vent flaps)
  - Relay outputs from the CMC III

Packs of	**Model No.**
1 pc(s).	**7030.223**

Dimensions:
- W x H x D: 50 x 190 x 25 mm door-mounted

Material:
- Plastic

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 40

Supply includes:
- Coded lock
- Connection cable 2.9 m
- Adaptor for glazed aluminium door for VX IT
- Assembly parts

Also required:
- CMC III access control, see page 812
- CMC III Processing Unit/Compact, see page 804

Accessories:
- CMC III online comfort handle VX, see page 946
- Door control module, see page 817

Transponder reader

for CMC III

For managing access to doors.

Benefits:
- Use of a read system for multiple handles is supported, provided this is connected to the same CMC III system
- High security standards thanks to the four-eyes principle

Installation options:
- On VX IT doors
- Adjacent to room doors

Functional principle:
- Direct connection to the CMC III Access Control or CMC III Door Control Module
- Optical (LED) and acoustic (alarm sound) status display
- Authorisations are managed via the CMC III system or RiZone
- Door opening with a maximum of two linked transponder cards (four-eyes principle)
- Control via CMC III of:
  - Online comfort handle VX
  - Automatic Door Opening System (vent flaps)
  - Relay outputs from the CMC III

Dimensions:
- W x H x D: 50 x 190 x 25 mm door-mounted

Material:
- Plastic

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 40

Supply includes:
- Transponder reader
- Connection cable 2.9 m
- Adaptor for glazed aluminium door for VX IT
- Mifare classic transponder card
- Assembly parts

Also required:
- CMC III access control, see page 812
- CMC III Processing Unit/Compact, see page 804

Accessories:
- Transponder card, see page 814
- Door control module, see page 817
- CMC III online comfort handle VX, see page 946

Design	Frequency	Packs of	**Model No.**
Transponder reader for Mifare, Legic Advant, HID, FeliCa (Legic Prime available on request)	RFID – 13.56 MHz	1 pc(s).	**7030.233**

System components

Transponder card

Mifare classic
Contactless smart card for opening doors.

Benefits:
– Personalised authentication with history is supported in conjunction with the CMC III system

Applications:
– For use with the CMC III transponder reader or the CMC III radio comfort handle VX with integral card reader

Dimensions:
– W x H x D: 85 x 54 x 1 mm

Transponder card	Packs of	**Model No.**
Mifare classic	2 pc(s).	**7030.628**

Also required:
– CMC III transponder reader, see page 813
– CMC III radio comfort handle VX, see page 947

CMC III online comfort handle VX

with master key function for VX, VX IT
For door locking, handle lever monitoring and status display.

Further ordering information may be found in the chapter on system accessories, page 946

Packs of	**Model No.**
1 pc(s).	**7030.611**

CMC III Wireless Unit

for radio comfort handle VX

Up to 16 radio comfort handles VX and/or defined EnOcean sensors may be connected via the Wireless Unit. In complex environments with high levels of interference, additional CMC III Wireless Units may be used at alternative locations. This allows the wireless comfort handles/sensors to send their signal to multiple Wireless Units and facilitate redundancy. The Wireless Units can also be placed in multiple separate rooms/units in order to interlink the existing radio handles and sensors. The maximum overall length of the CAN bus route is 50 m/bus. The unit is compatible with the CMC III Processing Unit.

Benefits:
- High standard of security thanks to encrypted radio transmission of security-relevant signals
- Redundant transmission with up to 16 Wireless Units

Dimensions:
- W x H x D:
  138 x 40 (1 U) x 120 + 12 mm front assembly

Material:
- Plastic

Colour:
- Front: RAL 9005
- Enclosure: RAL 7035

Protection category IP to IEC 60 529:
- IP 30

Supply includes:
- Basic system
- Aerial with magnetic base, 2.5 m connection cable
- Assembly parts for mounting on surfaces

Radio technology	Packs of	**Model No.**
EnOcean, 868 MHz	1 pc(s).	**7030.690**

Max. no. of wireless units/radio comfort handles/ EnOcean sensors

	Wireless Unit	Processing Unit	Processing Unit Compact
Wireless Unit	–	16	–
Radio comfort handle/ EnOcean sensor	16	128	–

Note:
- More information on the compatibility of other EnOcean sensors can be found at www.rittal.de under Model No. 7030.690.

Also required:
- CAN bus connection cable, see page 818
- CMC III Processing Unit, see page 804
- Mounting unit, 1 U, see page 819
- Radio comfort handle VX, see page 947

Radio comfort handle VX

with card reader for VX, VX IT

Battery-operated radio handle for door locking, handle lever/rack door monitoring and status display.

Further ordering information may be found in the chapter on system accessories, page 947

Packs of	**Model No.**
1 pc(s).	**7030.621**

CMC III Automatic Door Opening (ADO)

For automatic cooling of closed network/server racks in an emergency situation.

The ADO system is comprised of:
– Door control module
– Glazed door VX IT for ADO with integral vent flaps

Applications:
– Overtemperature in the closed VX IT rack
– Extinguisher gas should be able to enter the rack from the room

Activated via the Door Control Module (DCM) unit. One DCM activates one rack with 2 doors (front/rear door). The vent flaps integrated into the glazed door VX IT for ADO are kept closed by a system of magnets, and in an emergency situation are pressed open by the gas pressure damper system. We recommend the use of CMC III and access sensors.

Benefits:
– Stand-alone mode
– Independent power supply
– The integral temperature sensor ensures a high level of reliability, by making it independent from other systems and their power supplies
– The ADO system is not activated for normal access to the rack interior

Note:
The following doors may be connected:
– 2 glazed doors VX IT for ADO with integral vent flaps, Model No. depending on door variant
– For emergency ventilation, we recommend use of the DCM temperature sensor which creates fewer dependencies on other systems and their power supplies for superior reliability.

Activation in case of alarm:
– CMC III task
– DCM, temperature sensor including connection cable
– DCM, digital input

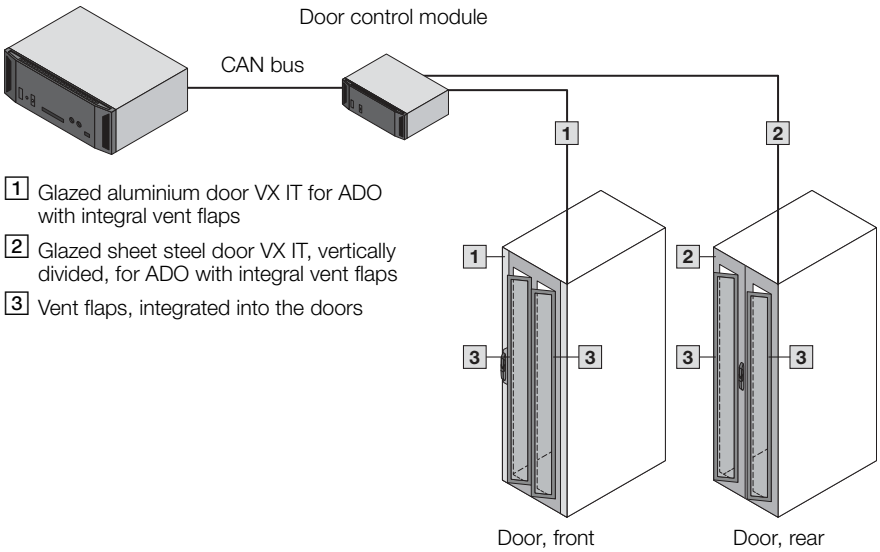
Activation for user access:
– The lock system for manual door access may be selected with standard VX IT doors, see page 919

Also required:
– Door control module DCM, see page 817
– Glazed door VX IT for ADO with integral vent flaps, see page 919

Accessories:
– CMC III Processing Unit/Compact, see page 804
– Combination lock/transponder reader for local function tests, see page 813
– Access sensor, see from page 807

System diagram CMC III Automatic Door Opening (ADO)
– Maximum of 16 door control modules per Processing Unit
– Maximum of 4 door control modules may be connected per Processing Unit Compact

CMC III
– Processing Unit
– Processing Unit Compact



1 Glazed aluminium door VX IT for ADO with integral vent flaps

2 Glazed sheet steel door VX IT, vertically divided, for ADO with integral vent flaps

3 Vent flaps, integrated into the doors

Door control module

Control unit for automatic opening of glazed doors VX IT for ADO with integral vent flaps. Designed for a rack with front and rear door. To fit CMC III system with CAN bus.

Material:
– Plastic

Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Supply includes:
– Basic system
– Temperature sensor including connection cable (supplied loose)
– Assembly parts for mounting on surfaces

Also required:
– Glazed doors VX IT for ADO with integral vent flaps, see page 919
– CMC III power pack, see page 818
– Mounting unit, 1 U, see page 819

Accessories:
– Redundant power pack, see page 818
– Coded lock/transponder reader, see page 813
– CMC III Processing Unit/Compact, see page 804
– CAN bus cable, see page 818

Model No.	7030.501
Packs of	1 pc(s).
Maximum no. of PU/PU Compact	16/4
1st rated voltage	24 V (DC) 7030.060 for door control module and glazed doors VX IT for ADO, redundant to 2nd rated voltage
2nd rated voltage	24 V (DC) 7030.060 for door control module and glazed doors VX IT for ADO
1 x temperature sensor input	Temperature sensor including connection cable (supplied loose)
3 x digital inputs	Alarm/front door flaps/rear door flaps
1 x input for reader units	Combination lock/transponder reader for local function testing of the vent flaps
2 x outputs for glazed doors VX IT for ADO with integral vent flaps	Magnet system with damper integrated into the door
2 x CAN bus CMC III	RJ45 for CAN bus cable

Glazed door VX IT

for Automatic Door Opening (ADO)

The doors for the Automatic Door Opening System replace the standard doors of the VX IT.

Further ordering information may be found in the chapter on system accessories, page 919

Packs of	Model No.
1 pc(s).	**7030.262**
1 pc(s).	**7030.263**
1 pc(s).	**7030.272**
1 pc(s).	**7030.273**
1 pc(s).	**7030.282**
1 pc(s).	**7030.283**

Accessories

CMC III power pack

for PU, PU Compact, LED light strip, door control module

The power pack is specifically tailored to the CMC III design and may be positioned in a mounting unit. As well as a special connector for the CMC III Processing Unit/Compact, there are also two further terminals available as 24 V outputs.

Technical specifications:
- Input voltage: 100 – 240 V / 50/60 Hz
- Output voltage: 24 V (DC)/2.5 A
- Length of 24 V (DC) connection cable: 0.6 m
- Input: IEC 320 connector C14

Dimensions:
- W x H x D:
  138 x 40 x 120 + 12 mm front frame

Material:
- Plastic

Surface finish:
- Front: Smooth
- Enclosure: Textured

Colour:
- Front: RAL 9005
- Enclosure: RAL 7035

Supply includes:
- Assembly parts for mounting on surfaces

Packs of	Model No.
1 pc(s).	**7030.060**

Also required:
- Connection cable, see page 819
- Mounting unit, 1 U, see page 819

Programming cable

For first-time commissioning of the Processing Unit (PU) or PU Compact. During initial start-up, the programming cable connects the CMC III Processing Unit/Compact to the USB interface of a PC. A driver for Windows systems is also included with the supply and must be installed on the PC.

Supply includes:
- CD with driver and system description

Packs of	Model No.
1 pc(s).	**7030.080**

CAN bus connection cable

For connecting the PU to the CAN bus sensors III, units III and control units III as a bus, also for cabling together.
Because it is available in different lengths, the CMC III system can be adapted to various applications and built to a custom design.

CMC III CAN bus connection cable	Length m	Packs of	Model No.
RJ45	0.5	1 pc(s).	**7030.090**
RJ45	1	1 pc(s).	**7030.091**
RJ45	1.5	1 pc(s).	**7030.092**
RJ45	2	1 pc(s).	**7030.093**
RJ45	3	1 pc(s).	**7030.480**
RJ45	4	1 pc(s).	**7030.490**
RJ45	5	1 pc(s).	**7030.094**
RJ45	10	1 pc(s).	**7030.095**

Connection cable/extension

For connecting to:
- CMC III power pack C14
- CMC III power unit C13/C14
- PDU C19

Technical specifications:
- PVC cable, 3-pole, with IEC 60 320 cable coupling (non-heating appliances) with contact protection CEE22
- Length: Minimum 1.8 m

Country version	Voltage (V)	Packs of	Model No.
D/F/B/C13	230	1 pc(s).	**7200.210**
IEC 320 device extension C13/C14	230/115	1 pc(s).	**7200.215**
Connection cable D/C19	230/115	1 pc(s).	**7200.216**
Connection cable C19/C20	230/115	1 pc(s).	**7200.217**

Connection/ extension cable RJ12

with RJ12 connector/jack

To extend cable connections to CMC-TC sensors and CMC III online comfort handle VX and to connect the CMC III access sensor 7030.128, either individually or in a row of sensors.

Length m	Packs of	Model No.
1	2 pc(s).	**7320.814**

Mounting unit, 1 U

For installing CMC III units in network and server racks. To accommodate up to three CMC III enclosures and for mounting in the 482.6 mm (19") section.

To accommodate:
- CMC III Processing Unit
- CMC III Processing Unit Compact
- CMC III control unit
- CMC III Wireless Unit
- CMC III power pack
- CMC III LTE unit
- CMC III door control module

Benefits:
- Fire protection: Self-extinguishing to UL 94-HB

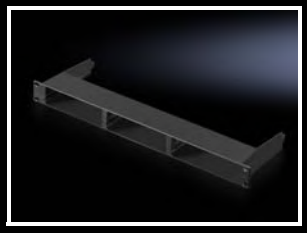
Packs of	Model No.
1 pc(s).	**7030.088**

Material:
- Plastic

Colour:
- RAL 9005

Supply includes:
- Mounting unit, 1 U
- 2 blanking covers
- Assembly parts

Accessories:
- Cable clamp strap 7030.087, see page 819



Cable clamp strap

For tool-free attachment to the rear of the CMC III 482.6 mm (19") mounting unit 7030.088. Enables tidy cable routing behind the built-in CMC III devices and can be used to attach cables for strain relief purposes. Cables are easily laid in a loop to allow the built-in CMC III devices to be removed from the mounting unit without the need for tools.

Applications:
- Cable management

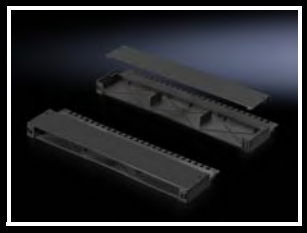
Benefits:
- Cable support
- Fire protection: Self-extinguishing to UL 94-HB

Packs of	Model No.
1 pc(s).	**7030.087**

Material:
- Plastic

Colour:
- RAL 9005

Supply includes:
- Assembly parts



Accessories

Mounting unit

To accommodate one CMC III unit and for mounting on the enclosure frame.

To accommodate:
– CMC III Processing Unit
– CMC III Processing Unit Compact
– CMC III Control unit
– CMC III Wireless Unit
– CMC III Power pack
– CMC III LTE unit
– CMC III Door control module

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**7030.071**

CMC III LTE unit

For configuring a redundant transmission channel or, if there is no network infrastructure available, for alarm forwarding. The alarm signal is designed in text message format. Cover for LTE (4G), UMTS (3G) and GSM (2G) with automatic changeover function, see bands and frequencies. A standard, commercially available SIM card must be provided by the customer.

Material:
– Plastic

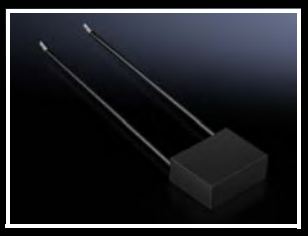
Colour:
– Front: RAL 9005
– Enclosure: RAL 7035

Supply includes:
– CMC III LTE unit
– RJ12 cable
– Aerial including magnetic base
– Assembly parts for mounting on surfaces

Packs of	Model No.
1 pc(s).	**7030.571**

Network support / bands and frequencies:
– 4G LTE band 1 (2100 MHz)
– 4G LTE band 3 (1800 MHz)
– 4G LTE band 8 (900 MHz)
– 4G LTE band 20 (800 MHz)
– 4G LTE band 28 (700 MHz)
– 3G UMTS band 1 (2100 MHz)
– 3G UMTS band 8 (900 MHz)
– 2G GSM (900 MHz)
– 2G GSM (1800 MHz)

Also required:
– CMC III Processing Unit/Compact, see page 804
– Mounting unit, 1 U, see page 819



Interference suppressor for fans

for CMC III

For connecting fans via the CMC III power unit 7030.050. The interference suppressor prevents excessive breaking currents. One interference suppressor is required for each fan.

Material:
– Plastic

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**7030.051**

LED light strip

for CMC III

For colour status display within a network/server rack. If an error occurs, the light strip will change to the set colour.

Benefits:
- Stand-alone mode by connecting the RGB LED light strip directly to a 24 V (DC) power pack
- Easy to install with the integral magnetic attachment

Functional principle:
- Activation via CMC III
- Connection via three of the four relay connections on the CMC III I/O unit
- Connection via the alarm relay of the Processing Unit/Compact with colour change
- Connects directly to the CMC III power pack
- The three connection cables of the LED light strip activate the three basic colours red, green and blue. Activating two or three colours simultaneously will create the corresponding secondary colours. Links to sensor warnings or alarms are made via task links in the CMC III system.

Technical specifications:
- Rated voltage: 24 V (DC)
- Rated current: 1.1 A

Dimensions:
- W x H x D: 18 x 1830 x 24.2 mm

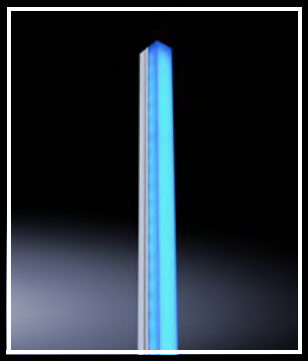
Material:
- Aluminium
- Plastic

Supply includes:
- LED light strip including magnetic attachment
- Connection cable 0.1 m
- Connection cable 2.4 m with four pre-assembled connectors for the CMC III I/O unit

Packs of	Model No.
1 pc(s).	**7030.950**

Also required:
- CMC III power pack, see page 818

Accessories:
- CMC III I/O unit, see page 806
- CMC III Processing Unit/Compact, see page 804



Monitor/keyboard unit, 1 U

with 17" TFT display and VGA/DVI connection
The unit is housed in a pull-out drawer. The monitor can be flipped up and the drawer latches into the end position. This means that the unit only requires 1 U in the 482.6 mm (19") rack.

Benefits:
– With digital and analog interfaces, VGA, DVI-D, PS/2, USB
– Simple one-person assembly

Main components:
– TFT monitor 17"
– Keyboard, German or English
– Touchpad

Supply includes:
– Monitor/keyboard unit
– VGA cable
– DVI cable
– 2 x PS/2 cable
– USB cable
– Earthing-pin mains cable
– Assembly parts

Technical design:
– 432 mm/17" TFT display
– Physical resolution: 1280 x 1024
– Format: 4 : 3
– Colours: 16.7 million colours
– Brightness approx. 350 cd/m^2 (typ.)
– Contrast ratio: approx. 1000 : 1
– Mains voltage: 100 – 240 V / 50/60 Hz
– Ambient temperature: +5 °C…+45 °C (operation)
– Max. power consumption in operation: 32 W
– Max. power consumption with closed monitor unit: < 1 W
– Rear connections: Mains voltage, VGA, DVI, PS/2, USB
– Lockable at the front
– Cables are safely routed in the energy chain

Width	Height U	Depth mm	Installation depth mm	Colour	Keyboard	Packs of	**Model No.**
482.6 mm/ 19"	1	680	680 – 850	RAL 7035	German	1 pc(s).	**9055.310**
					US English	1 pc(s).	**9055.312**
				RAL 9005	German	1 pc(s).	**9055.410**
					US English	1 pc(s).	**9055.412**

Fire alarm and extinguisher system

System accessories Page 877 **Network/server racks VX IT** Page 686 **Micro Data Center** Page 842

The active extinguisher system includes the smoke extraction system and the extinguisher unit. The smoke extraction system is identical to the smoke extraction system in the EFD III. The extinguishing process begins automatically when a main alarm is activated. For the extinguishing process, the tank is pressurised via a propellant cartridge. The extinguisher gas Novec™ 1230 evaporates at the extinguisher nozzle and is distributed in the server enclosure.

Benefits:
- Early fire detection
- Automatic extinguishing
- Innovative extinguisher Novec™ 1230: eco-friendly, non-critical for IT components, non-conductive
- 482.6 mm (19") rack mount with just 1 U
- Tested by VdS Schadenverhütung GmbH
- CAN bus interface to the CMC III monitoring system
- Floating relay outputs (pre-alarm/main alarm/ collective fault)

Material:
- Sheet steel

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Note:
- This system is designed solely for use in closed, non-accessible enclosure systems with a maximum volume of 2.8 m^3.

DET-AC III master

Width mm	Packs of	482.6	Page
Height mm		44	
Depth mm		660	
Weight kg		21.5	
Model No.	1 pc(s).	**7338.121**	
Operating temperature range		+10 °C...+40 °C	
Storage temperature range without batteries		-20 °C...+65 °C	
Storage temperature range of batteries		-15 °C...+40 °C	
Ambient humidity (non-condensing) %		96	
Rated operating voltage V, ~, Hz		100 - 240, 1~, 50/60	
Emergency power supply		approx. 4 h	
Airflow monitoring		approx. ±10% of total airflow	
Interfaces		4 x/3 x relay outputs for alarms and faults (terminals/RJ12 jacks) 1 x/1 x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 2 x connection (external alarm/manual triggering device) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)	
Sensors		Optical smoke detector (sensitivity: approx. 3.5%/m light obscuration) Optical smoke detector HS (sensitivity: approx. 0.25%/m light obscuration)	
Display		Plain-language display with 6 LEDs	
Technical specifications		Extinguisher is emitted via a propellant cartridge, with integral electrical activation unit Integral extinguisher monitoring (indication of >15% loss)	
Tank: Material/volume l		Aluminium / 2	
Extinguisher: Type/fill volume l		Novec™ 1230 / 1.8	
Also required			
CMC III access sensor VX	1 pc(s).	7030.128	808
CMC III CAN bus connection cable	1 pc(s).	7030.091	818
Sealing kit for VX IT and LCP	1 pc(s).	7338.135	826
Pipe kit	1 pc(s).	7338.130	826
Slide rail, 1 U, depth-variable	2 pc(s).	5302.035	1088

Early fire detection system

System accessories Page 877 **Network/server racks VX IT** Page 686 **Micro Data Center** Page 842

The EFD III early fire detection system includes the smoke extraction system in a 482.6 mm (19") subrack with just 1 U. An integral fan continuously extracts air from the area being protected via a system of pipes. The air drawn in passes two fire detectors. If smoke is detected, the highly sensitive detector will emit a pre-alarm, while the second detector will activate the main alarm. The fire detectors are permanently monitored for correct functioning by the evaluation and control electronics on the control card.

Benefits:
- Early fire detection
- 482.6 mm (19") rack mount with just 1 U
- Tested by VdS Schadenverhütung GmbH
- CAN bus interface to the CMC III monitoring system
- Floating relay outputs (pre-alarm/main alarm/ collective fault)

Material:
- Sheet steel

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Note:
- This system is designed solely for use in closed, non-accessible enclosure systems.

EFD III

Width mm	Packs of	482.6	Page
Height mm		44	
Depth mm		490	
Weight kg		15.0	
Model No.	1 pc(s).	**7338.221**	
Operating temperature range		+10 °C...+40 °C	
Storage temperature range without batteries		-20 °C...+65 °C	
Storage temperature range of batteries		-15 °C...+40 °C	
Ambient humidity (non-condensing) %		96	
Rated operating voltage V, ~, Hz		100 - 240, 1~, 50/60	
Emergency power supply		approx. 4 h	
Airflow monitoring		approx. ±10% of total airflow	
Interfaces		4 x/3 x relay outputs for alarms and faults (terminals/RJ12 jacks) 1 x/1 x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 3 x connection (external alarm/manual call point/tank and fill level) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)	
Sensors		Optical smoke detector (sensitivity: approx. 3.5%/m light obscuration) Optical smoke detector HS (sensitivity: approx. 0.25%/m light obscuration)	
Display		Plain-language display with 6 LEDs	
Also required			
CMC III CAN bus connection cable	1 pc(s).	7030.091	818
Pipe kit	1 pc(s).	7338.130	826
Slide rail, 1 U, depth-variable	2 pc(s).	5302.035	1088

Add-on unit

System accessories Page 877 **Network/server racks VX IT** Page 686 **Micro Data Center** Page 842

This add-on unit to the DET AC III Master includes an additional extinguisher unit. In addition to the DET-AC III unit, a DET-AC III slave unit is used for each additional bayed enclosure and supplies the extinguishing agent for that enclosure. Detection occurs via the DET-AC III master system, even when multiple enclosures are bayed together. If a main alarm is reported, the DET-AC III Master will activate extinguishing in all systems simultaneously.

Benefits:
- Innovative extinguisher Novec™ 1230: eco-friendly, non-critical for IT components, non-conductive
- 482.6 mm (19") rack mount with just 1 U
- Tested by VdS Schadenverhütung GmbH
- CAN bus interface to the CMC III monitoring system
- In conjunction with the DET-AC III Master, extinguishes up to five racks in an enclosure suite
- May be used in combination with EFD III
- Floating relay outputs (pre-alarm/main alarm/ collective fault)

Material:
- Sheet steel

Colour:
- Enclosure: RAL 7035
- Front: RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Note:
- This system is designed solely for use in closed, non-accessible enclosure systems with a maximum volume of 2.8 m^3.

DET-AC III slave

Width mm	Packs of	482.6	Page
Height mm		44	
Depth mm		660	
Weight kg		19.1	
Model No.	1 pc(s).	**7338.321**	
Operating temperature range		+10 °C...+40 °C	
Storage temperature range without batteries		-20 °C...+65 °C	
Storage temperature range of batteries		-15 °C...+40 °C	
Ambient humidity (non-condensing) %		96	
Rated operating voltage V		24 (DC)	
Emergency power supply		approx. 4 h	
Interfaces		4 x/3 x relay outputs for alarms and faults (terminals/RJ12 jacks) 1 x/1 x input for door contact switch (terminal/RJ12 jack) 2 x CAN connections for master-slave networking 2 x connection (external alarm/manual triggering device) 1 x voltage output for DET-AC slave III (24 V DC max. 500 mA) 1 x USB 2 x CAN bus interfaces to CMC III (max. 16 on PU/4 on PU Compact)	
Technical specifications		Extinguisher is emitted via a propellant cartridge, with integral electrical activation unit Integral extinguisher monitoring (indication of >15% loss)	
Tank: Material/volume l		Aluminium / 2	
Extinguisher: Type/fill volume l		Novec™ 1230 / 1.8	
Also required			
CMC III access sensor VX	1 pc(s).	7030.128	808
Sealing kit for VX IT and LCP	1 pc(s).	7338.135	826
Pipe kit	1 pc(s).	7338.130	826
Slide rail, 1 U, depth-variable	2 pc(s).	5302.035	1088

Accessories

Pipe kit

for DET-AC III/EFD III

Non-adhesive plug-in system for connecting to the DET-AC III fire alarm and extinguisher system and the EFD III early fire detection system.

Functions:
– The system fans continuously draw air out of the protected area via this pipe system.

Technical specifications:
– Diameter of plastic pipe: 18 mm internal, 22 mm external

Colour:
– Black

Supply includes:
– 3 plastic pipes @ 1 m
– T-piece
– 2 connector pieces, straight
– 4 connection brackets, 90°
– 2 end caps
– Assembly parts

Packs of	Model No.
1 pc(s).	**7338.130**

Sealing kit for VX IT and LCP

in conjunction with DET-AC III master/slave

For closing openings in VX IT network/server racks and Liquid Cooling Packages when using a DET-AC III fire alarm and extinguisher system.

Applications:
– Closes the brush strips in two roof plates of the VX IT rack
– Closes 1 brush strip in the roof plate of the LCP
– Closes the opening in the base of the LCP CW/ LCP DX in the vicinity of the refrigerant/water lines

Benefits:
– Sealing of cable, hose and pipe glands in the roof and base section without impairing their function

Material:
– Polythene foam, self-adhesive on one side

Colour:
– Anthracite

Supply includes:
– 4 blanks to fit two VX IT roof plates
– 1 blank for an LCP

Packs of	Model No.
1 pc(s).	**7338.135**

IT Infrastructure Selector

All data centre product categories at a glance

Use it online at
www.rittal.com/it-configurator

RiZone

Data centre infrastructure management – RiZone

RiZone is Rittal's DCIM solution for easy, efficient monitoring and control of a data centre's physical infrastructure. It is designed to help improve the availability and efficiency of the data centre.
The high availability demands of data centre users necessitates a comprehensive security management system. This relies on the monitoring of all data centre components and parameters with relevance to security and availability. RiZone is tasked with implementing all messages, sensor values and actuators in the IT infrastructure and server environment into a plausible message chain to ensure transparent operation of the data centre. The formulaic correlation in RiZone Editor transforms individual warnings, data or signals into logical information and actions, to maintain the data centre's availability.

RiZone – Optimum monitoring of IT infrastructure components

- Incorporation of the physical IT infrastructure
- Automatic detection of Rittal components
- Simple configuration of power distribution systems
- Workflow editor for user-defined scenarios
- Enhanced security and reliability
- Improved energy efficiency
- Integration of SNMP-compatible third-party equipment

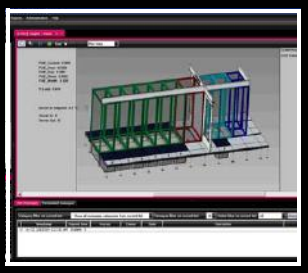
IT infrastructure in context

RiZone is the ideal solution for operating the entire IT infrastructure safely and efficiently. To this end, all processes are viewed in context and all components are perfectly coordinated with one another.

Prevention and reliability
- Identify hot spots in servers early on
- Continuously monitor individual electricity phases, avoid overloads and safeguard availability
- Set optimum climate control parameters

Trends and resource planning
- Identify bottlenecks in the physical supply early on
- Transparently plan extensions to the infrastructure

Functionality and efficiency
- Monitor PUE (power usage effectiveness) values
- Optimise energy efficiency in all areas



DCIM – Data Centre Infrastructure Management

RiZone – Perfect support of IT infrastructure components

Optional support of Rittal components – from server enclosures to power supply and climate control, through to security and monitoring technology – during integration and in the operational phase, with coordinated sensors and control systems.

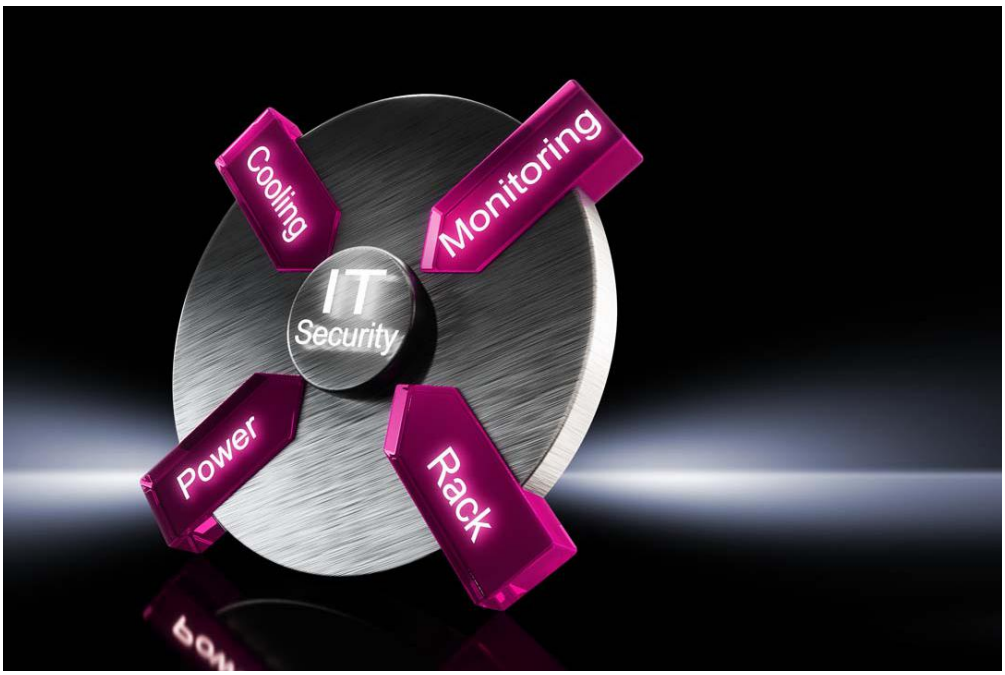
- The physical data centre infrastructure (OT devices) is incorporated into a data centre infrastructure management system.
- RiZone supports SNMP V1/V2C and SNMP V3
- Simple configuration
- Automatic detection of Rittal components
- Workflow editor for user-defined scenarios (what happens if ...)
- Enhanced security and reliability thanks to logical representation of the operating concept in RiZone
- Energy optimisation in the data centre
- Integration of SNMP-compatible third-party equipment

- **Autodiscovery**
  Detection of all SNMP-compatible IT infrastructure components
- **Database**
  In-house SQL database or link to external MS-SQL and Oracle databases
- **Capacity management**
  - Monitoring of data centre capacity utilisation
  - Redundancy monitoring of the climate control and power supply
  - Determination of optimum server installation positions
  - Optimisation of capacity utilisation and data centre availability
- **Off-line project planning**
  - Pre-configuration of RiZone projects
  - Supports Rittal CMC III components as well as RiMatrix S
  - Components are easily replaced using drag and drop
- **Central access control**
  - Central administration of acess data and PINs
  - One-time PIN function
  - Emergency PIN function
  - 2-way authorisation
- **User administration**
  - Granular user administration within RiZone
  - Support directory services
- **Open Virtualization Format (OVF)**
  - The virtual RiZone appliance is supplied in the industry standard OVF
- **Active Directory**
  - The RiZone server may be a member of a directory service
  - RiZone users may be a member of a directory service
- **CMC III access control**
  - Central administration of access control by RiZone
  - Administration of transponder cards
  - Centralised administration of access data
  - Import function

RiZone plus Rittal components creates a system solution with maximum energy efficiency.

Note:
- RiZone Appliance Standard
- RiZone IP node licence

see page 831



Rizone Appliance Standard

RiZone is supplied as a software appliance.

The software appliance is available as a virtual server in Open Virtualization Format (OVF) which is easily used on existing hardware in the data centre.

RiZone installer
- RiZone is installed on a client server
- The software is installed by a Rittal engineer on a Windows server 2012R2 or 2016

Note:
- RiZone supports the protocols SNMP V1/V2C and SNMP V3 for monitoring infrastructure components (OT devices) in a data centre. RiZone is manufacturer-neutral and suitable for use in a heterogeneous landscape of OT devices.
- Available to download at www.rittal.com/software

Also required:
- RiZone IP node licence according to the number of IP nodes available

Standard version	Model No.		
Software appliance[1)]	Hard drive + Windows	RiZone software	RiZone graphics tool
	7990.103	**7990.203**	**7990.303**
Installer	**–**	**7990.402**	**7990.502**

[1)] All Model Nos. on the same line belong together, and must always be ordered together

RiZone Appliance IP node licence

The flexible RiZone licence model allows optimum adaptation to any project size, while at the same time being capable of growing with the data centre.

The volume licences for the IP nodes are graduated with 25 and 100 nodes and may be adapted precisely to the size of the data centre. One node licence is required for each active component or other SNMP-compatible component to be covered.

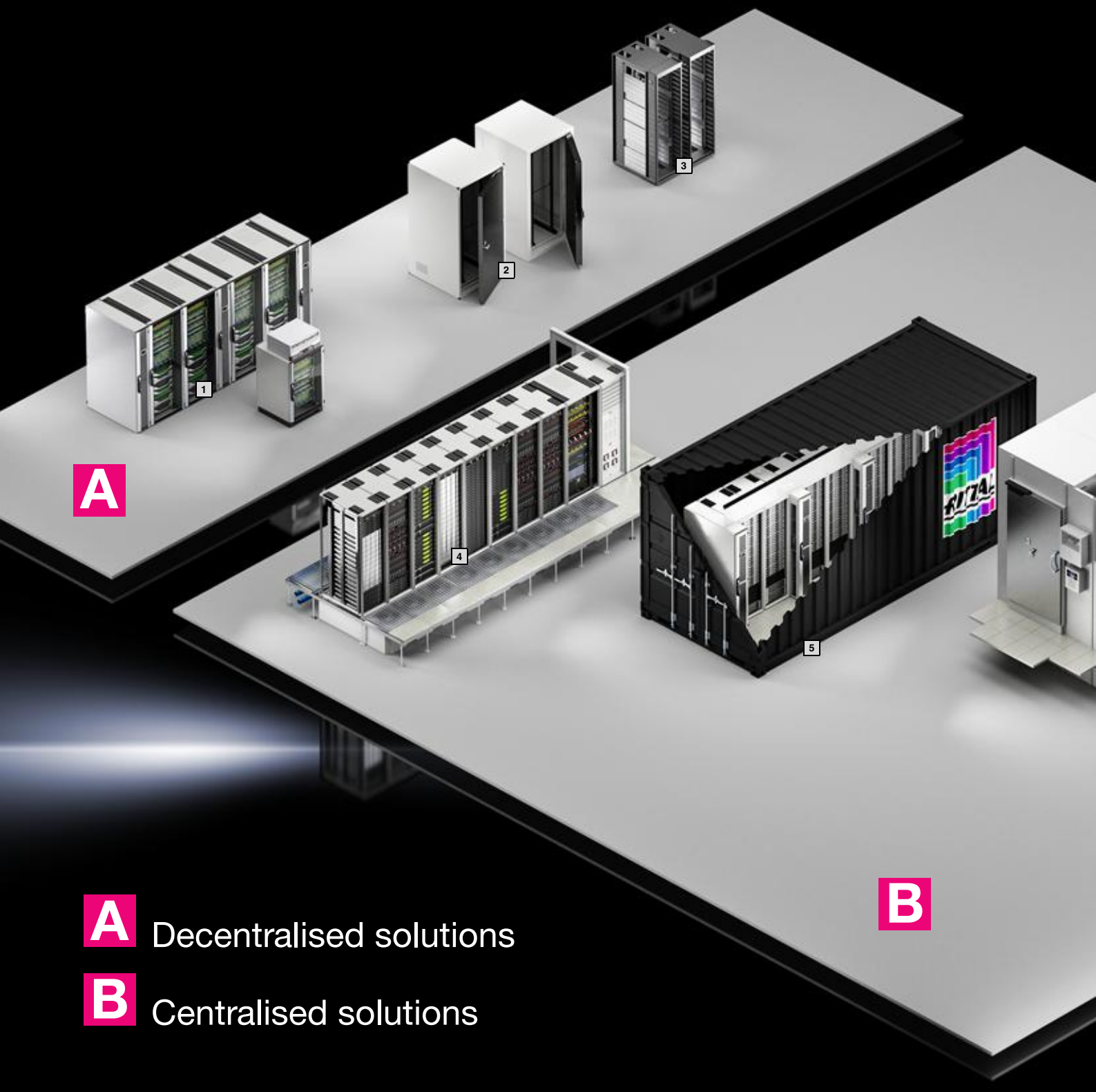
For no. of IP nodes[1)]	Console licences included	Model No.	
		RiZone software	RiZone graphics tool
25	4	**7990.206**	**7990.306**
100	8	**7990.208**	**7990.308**

[1)] All Model Nos. on the same line belong together, and must always be ordered together

Note:
- Download available at www.rittal.com/software

Rittal – The System.

Faster – better – everywhere.



A Decentralised solutions

B Centralised solutions

IT solutions

Edge Data Center

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Sample applications

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2 Micro Data Center, see page 842
3 Open Compute Project, see page 866
4 RiMatrix S, see page 848
5 IT container, see page 852
6 Security room, see page 862

Edge Data Center

The ideal solution for your applications

Edge & cloud solutions – for successful digitalization

- Industry 4.0, mobile streaming and self-driving cars all demand the fastest response times, top-level security, and availability. Rittal edge solutions deliver just that. They allow you to securely store, process and share large quantities of data in real time, wherever it is needed.
- Edge computing can significantly reduce storage and transmission costs, because large volumes of data can be pre-processed with only relevant data subsequently being transferred to a cloud or IT infrastructure. In this way, an edge data centre ensures minimal latency combined with maximum reliability and security.

Flexibility and reliability

- Edge data centres are always based around the local application. They must offer all the features of a “conventional” data centre, such as security and availability, since the availability of a production line depends on all its components, from the robot through to the edge data centre.
- Redundancy and fail-safe operation are key: The concept of continuous power & cooling ensures that the IT remains available for a defined period of time following a power failure so that the systems can be made safe.
- Fully redundant edge solutions can also be used to protect highly sensitive applications.

Scalability and physical protection

- Edge data centres are found across all industries in a wide range of application scenarios. The ability to adapt flexibly to the current situation is vital, as are standardised modular solutions enabling the fast assembly of large-scale edge topologies.
- Container solutions and outdoor enclosures facilitate siting outdoors, while micro data centres and security rooms provide bespoke protection in buildings when edge data centres must be protected from physical threats. Of course, the physical protective shield can be tailored precisely to keep pace with your growth plans.

Edge Data Center

With efficient plug & play solutions and innovative cooling technology

In industrial operations, building management, the logistics chain and logistics centres, the market for applications with edge data centres is continuously expanding. The emphasis here is on efficiency and reliability. Rittal's innovative cooling units in the Blue e+ series with integral heatpipe herald a new dimension in efficiency, particularly for edge data centres at the lower end of the output range.

Your benefits at a glance:

- Interfaces to all sensors, machines and devices
- Low latency in critical applications
- Capture and analysis of unstructured data to avoid unnecessary transmission to the cloud
- Interface to other edge data centres and to superimposed services in the cloud
- Efficient plug & play cooling solution with no installation work required

Example of a rear door-mounted cooling unit application:

- Cooling of IT equipment with standalone enclosure solutions
- Plug & play cooling solution with no installation work
- Rack-based cooling solution combined with 482.6 mm (19″) rack extinguisher systems
- For use in industrial environments

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server enclosure VX IT, IP 55	1	5309.136
IT power	PDU metered, 24 x C13/4 x C19, 1~, 16 A	2	7979.215
IT cooling	Wall-mounted-mounted cooling unit Blue e+ IT, up to 3 kW	1	3312.810
	Air duct for wall-mounted cooling unit Blue e+ IT	1	3312.820
IT monitoring	IoT interface	1	3124.300
	Temperature/humidity sensor	1	7030.111
	Access sensor	2	7030.120
IT security	Fire alarm and extinguisher system DET-AC III	1	7338.121
IT accessories	IT LED system light, 600 lm	1	7859.000

All the variants shown are sample configurations. Individually adaptable.

Example of a roof-mounted cooling unit application:

This edge solution is perfect for production and IoT sensor data capture, and for managing all types of data.

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server enclosure VX IT, IP 55	1	5303.134
IT power	PDU metered, 12 x C13/1 x C19, 1~, 16 A	2	7979.210
IT cooling	Roof-mounted cooling unit Blue e+ IT, 1.6 kW	1	3312.800
IT monitoring	IoT interface	1	3124.300
	Temperature/humidity sensor	1	7030.111
	Access sensor	2	7030.120
IT security	Smoke detector	1	7030.400
IT accessories	IT LED system light, 600 lm	1	7859.000

All the variants shown are sample configurations. Individually adaptable.

Edge Data Center

Reliable and redundant with split cooling solutions

Edge data centres can handle a wide variety of tasks, not just data capture and condition monitoring. With critical processes, such as controlling traffic flows or monitoring production processes, it is particularly vital for an edge data centre to reflect the availability of the application. Scalable redundancy is the key here.

Example of an integrated cooling unit application:

IT infrastructures comprising just one or two IT racks must still offer the same features as a large data centre. This begins with a reliable power supply and cooling, and extends through to monitoring. Smaller edge data centres are ideally suited for distributed installation across various locations for processing data in real time (for example, traffic monitoring and control).

The coolant-based cooling units are designed as split solutions. Depending on the cooling output, the heat exchanger is either built into the server rack or bayed to the server rack. Heat is emitted direct outside of the building.

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server enclosure VX IT, IP 55	2	5309.190
IT power	PDU metered, 24 x C13/4 x C19, 1~, 32 A	4	7979.216
IT cooling	LCU DX, redundant, 6.5 kW	2	3311.493
IT monitoring	CMC III monitoring system	1	7030.000
IT security	Fire alarm and extinguisher system DET-AC III	1	7338.121
IT accessories	IT LED system light, 600 lm	2	7859.000
	CAT 6, Network Cable Organizer	4	7044.110

All the variants shown are sample configurations. Individually adaptable.

Example of a rack-based suite cooling application:

Smart cities, interconnected vehicles and streaming services bring with them the challenge of continuous availability of safety-relevant data. This calls for data centres with a maximum degree of fail-safeness. Edge data centres are the answer, being exceptionally energy-efficient with a small footprint.

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Network/server rack VX IT, IP 55	4	5309.136
IT power	PDU metered, 24 x C13/6 x C19, 3~, 16 A	8	7979.236
IT cooling	LCP Rack DX, 12 kW	3	3313.420
	Condenser unit for LCP DX	3	3311.360
IT monitoring	CMC III monitoring system	1	7030.000
	Automatic door opening (ADO)	1	7030.262
	Access sensor	2	7030.120
IT security	Fire alarm and extinguisher system DET-AC III	1	7338.121
	Add-on unit DET-AC III	3	7338.321
IT accessories	IT LED system light, 600 lm	1	7859.000

All the variants shown are sample configurations. Individually adaptable.

Edge Data Center

The modular concept in a security safe or container

Data such as personal patient data is highly sensitive and must be protected from theft, while production data must be protected from physical threats such as dust, fire and splashed water. The Micro Data Center provides the perfect housing for edge data centres. The numerous options available, coupled with the opportunity of baying, permit a high degree of flexibility at the point of use.

Continuously growing data volumes are having a major impact on IT infrastructure. Demand for CPU and storage capacity is increasing at the same pace, which means that more and more servers and storage systems are needed, while the floorspace available for IT infrastructure has barely changed. Rittal's data centres in containers offer the perfect solution, because the standardised RiMatrix Data Cubes are installed in a short time and the concept is individually tailored to your requirements.

Benefits of Rittal container solutions:

- Customised container solutions on a platform basis
- Predefined modules are individually compiled to create a container data centre
- Pre-assembled container solutions can be up and running in next to no time.
- Project planning by Rittal
- Turnkey delivery of a field-tested solution complete with comprehensive documentation.

If there is no suitable space available in the office building, factory hall or institution, it may be possible to site the edge data centre outdoors. The modular container from Rittal is the ideal platform for combining predefined solutions of server, power and cooling containers. Numerous options and a choice of redundancy classes mean that solutions are precisely aligned with customer requirements.

Application examples for Rittal container solutions:

- Lack of space, because more IT hardware is needed as data volumes grow
- Influence of IoT and Industry 4.0: Data exchange between the machines and data centre must be guaranteed
- With edge data centres, the computing performance is provided locally, data volumes are reduced, and pressure on the main company data centre is relieved

IT Infrastructure	Product description	Packs of	Model No.
Container	RiMatrix Data Center Container all-in-one, max. IT output 35 kW	1	RDC-AIO 35/ 3-M-II
IT rack	Server rack	3	5310.009
	Network rack	1	5311.009
IT power	Low voltage distribution	1	7857.009
	UPS, modular, 40 + 20 kW	1	DPA UPScale ST TS 8
	PDU metered, 24 x C13/6 x C19, 3~, 16 A	4 x 2	7979.236
IT cooling	LCP Inline DX, 12 kW	5	3313.430

All the variants shown are sample configurations. Individually adaptable.

Example of a security safe application:

With its modular layout and option of dismantling and reassembly at any time, your edge data centre expands to accommodate your growing requirements. The security safe provides complete protection from physical threats and ensures the requisite fail-safeness for automated production in Industry 4.0 environments.

IT Infrastructure	Product description	Packs of	Model No.
IT rack	Micro Data Center Level E	1	7999.009
IT power	PDU metered, 24 x C13/4 x C19, 1~, 32 A	2	7979.216
IT cooling	LCU DX, redundant, 6.5 kW	1	3311.493
IT monitoring	CMC III monitoring system Compact	1	7030.010
IT security	Fire alarm and extinguisher system DET-AC III	1	7338.121
IT accessories	IT LED system light, 600 lm	1	7859.000
	CAT 6, Network Cable Organizer	2	7044.110

All the variants shown are sample configurations. Individually adaptable.

Micro Data Center

High availability in a security safe

Optimum protection from physical threats

- Data such as personal patient data can be highly sensitive and must be protected from theft, while production data must be protected from physical threats such as dust, fire and splashed water.
- The Micro Data Center provides the perfect housing for data centres. The numerous options available, coupled with the opportunities for baying, make it an extremely flexible solution.
- With its modular layout and option of dismantling and reassembly at any time, your data centre can expand as your requirements grow. The security safe offers complete protection from physical threats in even the smallest space.

Options for adapting to your needs

- The Micro Data Center is available in two variants – Level B (solid basic protection) and Level E (maximum protection).
- Level E MDCs are also bayable and can be fitted around your current installed IT racks even while operational.
- There are a range of climate control options available, with varying dissipated thermal loads and redundancies. For example, cooling in a security safe may be designed as fully redundant.
- A fire alarm and extinguisher system protects your valuable IT components from threats inside the safe.

Simple configuration of tested system solutions

- With the Rittal Micro Data Center, your security safe solution can be tailored to your exact application.
- System-tested quality means that the entire solution has been tested for fire protection, intruder protection, smoke protection and water/dust-tightness in accordance with the specified standards.
- Testing has been carried out by accredited institutes and confirmed with test reports.

Micro Data Center Level E

System accessories Page 877

Applications:
- A high level of protection against potential physical threats for IT components
- Targeted configuration components transform the safe into a complete Micro Data Center

Benefits:
- As well as facilitating installation in poorly accessible sites, the modular design also makes it possible to retrospectively enclose existing IT structures.
- Extendibility, dismantling and re-assembly mean targeted, future-safe investments
- Tested security – testing has been carried out by accredited institutes and confirmed with test reports

Protection standards:
- Fire protection category F 90 to DIN 4102 Part 2
- Compliance with limit values ΔT < 50 K, rel. humidity < 85% over 30 minutes
- Burglary resistance RC 2, optionally RC 3, tool attack analogous to DIN EN 1630/ 2011-09 and optionally WK 4, tool attack analogous to DIN V ENV 1630/ 1999-04/WK 4
- Smoke protection based on DIN 18 095-2: 1991-03

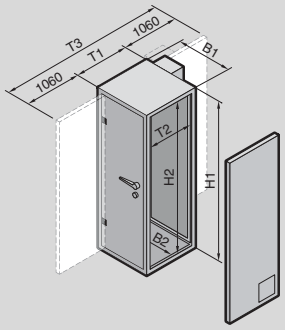
Material:
- Sheet steel, coated

Colour:
- Enclosure and service door: RAL 7035
- Operator door: RAL 9005

Protection category IP to IEC 60 529:
- IP 56

Supply includes:
- Micro Data Center with operator door and service door
- Cable entry in both side elements
- Both doors with key lock

Optional:
- Choice of door hinges
- Bifold doors
- Different cable entry systems and different positions
- Cable entry in the top/base unit
- Different lock variants
- Supporting structure



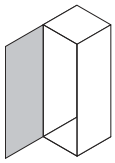
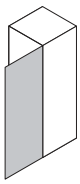
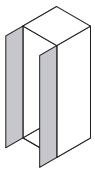
Note:
- The Micro Data Center is configured on a project-specific basis

U		42	47	42	47	Page
External dimensions mm	Width (B1)	1100	1100	1100	1100	
	Height (H1)	2210	2410	2210	2410	
	Depth (T1)	1200	1200	1400	1400	
	Depth (T3)	3320	3320	3520	3520	
Internal dimensions mm	Width (B2)	920	920	920	920	
	Height (H2)	2030	2230	2030	2230	
	Depth (T2)	1000	1000	1200	1200	
Model No.		**7999.009**	**7999.009**	**7999.009**	**7999.009**	
Empty weight excluding cooling unit and excluding rack approx. kg		660	700	730	800	
Accessories						
Fire alarm and extinguisher system DET-AC/EFD III		see page	see page	see page	see page	823
CMC III monitoring system		see page	see page	see page	see page	800
PSM – Modular Power Distribution Unit		see page	see page	see page	see page	744
PDU – Power Distribution Unit		see page	see page	see page	see page	732
LCU – Liquid Cooling Unit		see page	see page	see page	see page	768

Standard protection from:

Fire | Extinguishing water | Corrosive gases | Vandalism | Unauthorised access | Dust | Theft/burglary

Level E, options

Operator door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
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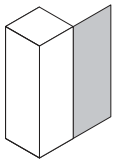
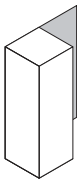
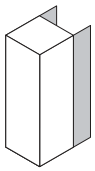
Service door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
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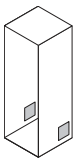
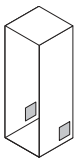
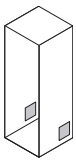
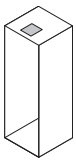
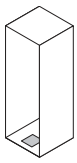
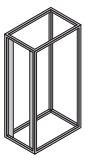
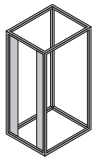
Cable entry	Soft duct[1] in both side elements	Hard duct[2] in both side elements	Cable box[3] in both side elements	Hard duct[2] in top element	Hard duct[2] in base element
					
	■	□	□	□	□

[1] Size of soft duct: approx. 267 x 165 mm
For fire protection reasons, the duct may be configured up to a max. of 60% with a maximum cable diameter of 15 mm and a maximum conduit diameter of 18 mm.
[2] Size of hard duct: 2 panels each 120 x 120 mm
Cables up to a diameter of 15 mm may be routed through the hard duct.
[3] Size of cable box: Field 1 approx. 210 x 44, field 2 approx. 210 x 25 mm
Cables up to a diameter of 15 mm and hoses up to a diameter of 44 mm may be routed through the cable box.
No conduits may be routed through the cable box.
Other positions are also possible.

Locks	Key lock with 2 keys	Electronic combination lock[1]	Electronic combination lock for activation via an access control system supplied by the customer
	■	□	□

[1] First code, second code and double code allocation possible. Key-based opening for inspection purposes supported.

VX IT rack with air baffle plates								
Width mm	600				800			
Height mm	2000	2200	2000	2200	2000	2200	2000	2200
Depth mm	1000	1000	1200	1200	1000	1000	1200	1200
	□	□	□	□	□	□	□	□

Supporting structure	Steel supporting structure to compensate for the raised floor height when siting the security safe on the bare floor. The height of the supporting structure is selectable between 100 mm and 1000 mm.	Steel supporting structure to compensate for the raised floor height when siting the security safe on the bare floor. The supporting structure has a fire-proof covering. The height of the supporting structure is selectable between 100 mm and 1000 mm.
	□	□

■ Included with the supply □ Optional

Micro Data Center Level B

System accessories Page 877

Applications:
- Basic protection against potential physical threats for IT components.
- Targeted configuration components transform the safe into a complete Micro Data Center.

Benefits:
- Modular layout for installation in hard-to-access locations
- Lower weight than the Level E Micro Data Center
- Tested security – testing has been carried out by accredited institutes and confirmed with test reports

Protection standards:
- Fire protection – fire resistance class EI 90/F 90 to DIN EN 1363-1: 1999 based on DIN 4102-2: 1997
- Burglar resistance RC 2 Tool attack analogous to DIN EN 1630/2011-09/RC 2
- Smoke protection based on DIN EN 1634-3: 2005-01

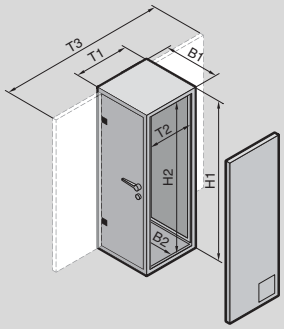
Material:
- Sheet steel, coated

Colour:
- Enclosure and service door: RAL 7035
- Operator door: RAL 9005

Protection category IP to IEC 60 529:
- IP 56

Supply includes:
- Security safe with integral VX frame
- 482.6 mm (19") mounting angles, standard, front and rear
- Adjusted air baffle plates
- Every side element is prepared for one cable entry at the bottom and one cable entry at the top
- Operator and service door with swing-lever handle and profile half-cylinder

Optional:
- Choice of door hinges
- Bifold doors
- Different cable entry systems and different positions
- Different lock variants
- Supporting structure with fire protection



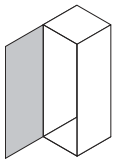
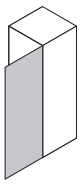
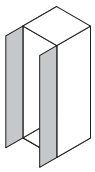
Note:
- The Micro Data Center is configured on a project-specific basis

U		42	47	42	47	Page
External dimensions mm	Width (B1)	1115	1115	1115	1115	
	Height (H1)	2205	2405	2205	2405	
	Depth (T1)	1377	1377	1577	1577	
	Depth (T3)	3274	3274	3474	3474	
Internal dimensions mm	Width (B2)	905	905	905	905	
	Height (H2)	2000	2200	2000	2200	
	Depth (T2)	1060	1060	1260	1260	
Model No.		**7999.709**	**7999.709**	**7999.709**	**7999.709**	
Empty weight excluding cooling unit approx. kg		595	630	660	700	
Accessories						
Fire alarm and extinguisher system DET-AC/EFD III		see page	see page	see page	see page	823
CMC III monitoring system		see page	see page	see page	see page	800
PSM – Modular Power Distribution Unit		see page	see page	see page	see page	744
PDU – Power Distribution Unit		see page	see page	see page	see page	732
LCU – Liquid Cooling Unit		see page	see page	see page	see page	768

Standard protection from:

Fire · Extinguishing water · Corrosive gases · Vandalism · Unauthorised access · Dust · Theft/burglary

Level B, options

Operator door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
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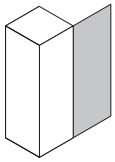
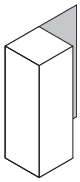
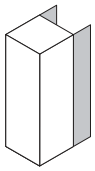
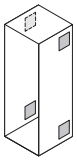
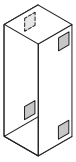
Service door	L/h DIN door hinge	R/h DIN door hinge	Bifold door
			
	■	□	□

Cable entry	Soft duct[1] in both side elements	Cable box[2] in both side elements
		
	■	□

[1] Size of soft duct: approx. 267 x 165 mm
For fire protection reasons, the duct may be configured up to a max. of 60% with a maximum cable diameter of 15 mm and a maximum conduit diameter of 18 mm.
[2] Size of cable box: Field 1 approx. 210 x 44, field 2 approx. 210 x 25 mm. Cables up to a diameter of 15 mm and hoses up to a diameter of 44 mm may be routed through the cable box. No conduits may be routed through the cable box.

Locks	Swing lever handle with interchangeable profile half-cylinder	Swing lever handle with electronic lock for external activation	Swing lever handle with electronic lock with combination code
	■	□	□

Supporting structure	Steel supporting structure to compensate for the raised floor height when siting the security safe on the bare floor. The supporting structure has a fire-proof covering. The height of the supporting structure is selectable between 100 mm and 1000 mm.		
	□	□	□

■ Included with the supply □ Optional

RiMatrix S

The standardised data centre

IT infrastructure – Fully operational

The RiMatrix S standardised data centre is suitable for all architectures, be it main data centres, small data centres in distributed locations, or edge data centres located outdoors. The local conditions are of secondary importance, because RiMatrix S can be used both in existing properties and in container data centres.
The significantly reduced planning times are key, because these highly efficient modules are fully pre-planned, including existing data sheets, implementation diagrams and documentation.
In the longer term, another benefit of this system-tested solution is a significant reduction in your electricity bills, with detailed calculations possible even at the planning phase.

Save time when planning

- Easily select your required modules with just one Model No.
- Complete documentation available at the planning phase
- Short delivery times and fast commissioning
- Pre-assembled modules for the installation of IT equipment, ready to use immediately
- Simplified final certification of the finished data centre

Efficient technology

- Unique, efficient cooling solution
- Space-saving climate control in the raised floor
- n+1 redundancy in the power supply and cooling
- Complete low-voltage distribution system and PDUs pre-installed in the racks, UPS built into selected modules
- Optional packages for comprehensive PUE (power usage effectiveness) monitoring using a prefabricated DCIM solution are available
- Documented low PUE (power usage effectiveness) of between 1.5 and 1.15
- Documented system test of the entire data centre module

Scalability from the edge to the cloud

- Standardised modules for simplified worldwide delivery
- Simple, uniform connection to supply infrastructures
- Different modules with outputs ranging from 10 kW to 450 kW (scalable)
- For use in existing premises in a simple protective cover or robust container structure

RiMatrix S at a glance

Standard room

The standardised data centre is assembled at your premises within the context of hot aisle/cold aisle containment.

Benefits:
– Aisle containment is a combination of door and roof components which allow consistent separation of the hot and cold air

Supply includes:
– Advice and ROI calculation
– Delivery and integration into the customer infrastructure
– Commissioning and handover
– Documentation, training, instruction
– Hotline and service/service agreements
– Precise-fit aisle containment

	Single 6	Double 6	Single 9	Double 9
Model No.	**7998.106**	**7998.107**	**7998.406**	**7998.407**
Exterior dimensions, width mm	2807	4839	2807	4839
Exterior dimensions, height mm	2750	2750	2750	2750
Exterior dimensions, depth mm	7067	7070	7067	7070
Interior dimensions, width mm	2750	4774	2750	4774
Interior dimensions, height mm	2722	2722	2722	2722
Interior dimensions, depth mm	7000	7000	7000	7000
Fire protection	–	–	–	–
Burglar resistance	–	–	–	–
Acrid gas-tightness	–	–	–	–
Dust- and water-tightness	IP 20	IP 20	IP 20	IP 20
Basic EMC protection	–	–	–	–
Early fire detection	■	■	■	■
Room extinguisher system	optional	optional	optional	optional
Humidification and dehumidification system	optional	optional	optional	optional
Server rack (600 x 2000 x 1200 mm)	6	12	8	16
Combined network/server rack (800 x 2000 x 1200 mm)	1	2	1	2
Uninterruptible power supply	60 kW + 20 kW n+1 redundant	2 x (60 kW + 20 kW) n+1 redundant	–	–
Low-voltage main distribution board (NSHV)	1	2	1	2
PDU basic	14	28	18	36
Climate control (ZUCS)	60 kW + 10 kW n+1 redundant	120 kW + 20 kW n+2 redundant	90 kW + 10 kW n+1 redundant	180 kW + 20 kW n+2 redundant
Efficiency package	**7998.905**	**7998.906**	**7998.907**	**7998.908**

RiMatrix S at a glance

Security room

The standardised data centre at your premises is equipped with an additional security room (room-within-a-room) to provide additional protection from fire, water and smoke.

Material:
- Element core made from thermally effective insulating material
- Robust, encapsulated sheet steel cassette panels
- Innovative connection system using patented profile technology
- Use of temperature- and humidity-resistant seals
- Optional use of overpressure control dampers
- Dismantling and reassembly are possible at any time

Supply includes:
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Commissioning and handover
- Documentation, training, instruction
- Hotline and service/service agreements

Container

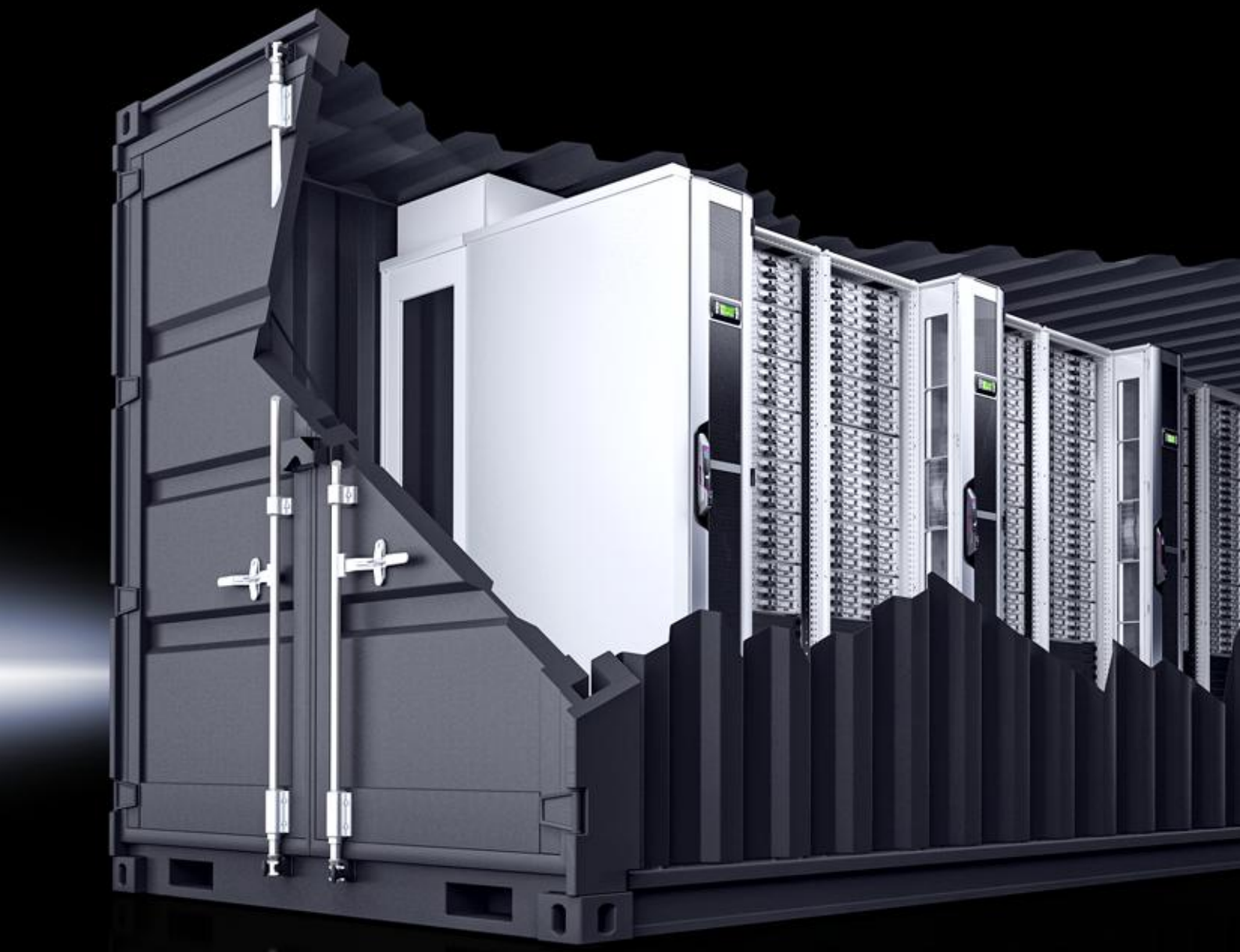
The standardised data centre is implemented in a container solution and can due to the robust sheet steel container construction be sited outdoors if required.

Supply includes:
- Robust sheet steel container with reinforced frame structure for optimum weight distribution
- Housed interior wall structure with thermal insulating materials
- Advice and ROI calculation
- Delivery and integration into the customer infrastructure
- Documentation, training, instruction
- Hotline and service/service agreements

Single 6	Double 6	Single 9	Double 9	Single 6	Single 9
7998.306	**7998.307**	**7998.606**	**7998.607**	**7998.206**	**7998.506**
2950	4976	2950	4976	3000	3000
2800	2800	2800	2800	3000	3000
7420	7420	7420	7420	7250	7250
2750	4776	2750	4776	2750	2750
2700	2700	2700	2700	2700	2700
7220	7220	7220	7220	7000	7000
EI 90 according to EN 1363/F 90 based on DIN 4102	EI 90 according to EN 1363/F 90 based on DIN 4102	EI 90 according to EN 1363/F 90 based on DIN 4102	EI 90 according to EN 1363/F 90 based on DIN 4102	–	–
RC III	RC III	RC III	RC III	RC II	RC II
■	■	■	■	–	–
IP 56	IP 56	IP 56	IP 56	IP 55	IP 55
■	■	■	■	■	■
■	■	■	■	■	■
optional	optional	optional	optional	optional	optional
optional	optional	optional	optional	optional	optional
6	12	8	16	6	8
1	2	1	2	1	1
60 kW + 20 kW n+1 redundant	2 x (60 kW + 20 kW) n+1 redundant	–	–	60 kW + 20 kW n+1 redundant	–
1	2	1	2	1	1
14	28	18	36	14	18
60 kW + 10 kW n+1 redundant	120 kW + 20 kW n+2 redundant	90 kW + 10 kW n+1 redundant	180 kW + 20 kW n+2 redundant	60 kW + 10 kW n+1 redundant	90 kW + 10 kW n+1 redundant
7998.905	7998.906	7998.907	7998.908	7998.905	7998.907

Data centre container

The modular concept for complete IT infrastructures



IT technology plus matching infrastructure equals a complete system

Growing data volumes and escalating requirements are creating ever more problems with space. Modular containers suitable for outdoor siting offer a possible solution and are highly scalable. Thanks to the container structure, a data centre can be planned with minimal effort and extended in the future. RiMatrix Data Cubes are a modular system from Rittal which provide the ideal basis for suitable projects and include server, power and cooling modules. There is also an all-in-one (AIO) variant available as a plug & play solution, in which the server zone and technical room are accommodated together in a single module.

A scalable, modular system

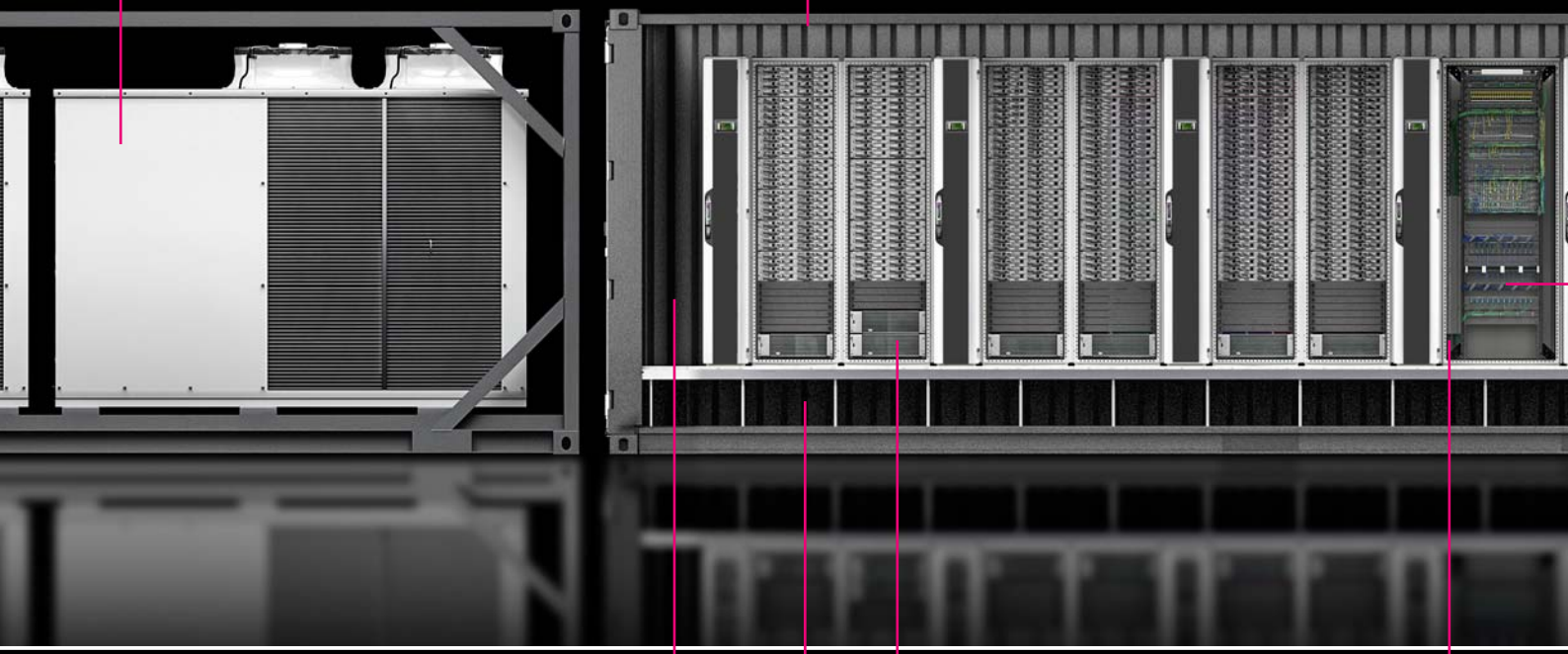
- This flexible solution accommodates the specific requirements of individual applications
- Simple selection options help to streamline planning, with detailed planning of individual assemblies specifically for the application in each container
- Standardised components with tested and certified safety.
- Industrial production of the entire container is very fast, with installation and cabling of the IT hardware on request
- Suitable for outdoor siting
- Reduced installation phase thanks to the plug & play principle
- High level of scalability
- Mobile and future-proof

Efficiency and service

- Low CO_2 emissions: Modern IT cooling units from Rittal support high levels of efficiency in containers compared with conventional data centres
- Continuous advice and planning from the Rittal data centre experts
- Servicing and preventive maintenance help to safeguard the longevity and maximum availability of your infrastructure

RiMatrix Data Cube Cooling:
Efficient recooling systems in the container frame, ready to connect and system-tested with redundant chillers, free-cooling mode or additional free cooler and network functions

RiMatrix Data Cube IT:
Ready-to-connect IT infrastructure in a robust container shell, as standardised IT modules in a range of output categories for SME, Cloud and Edge applications.



Robust container cover:
For siting outdoors, standardised dimensions for reduced planning effort

Network racks:
Pre-configured type VX IT for installing network technology and structured cabling, with two PDUs for redundant power supply

Modular raised floor:
In a range of application-specific heights

Server racks:
Pre-configured type VX IT for server installation, with cable guide rails and two PDUs for redundant power supply in the server exhaust air zone

RiMatrix Data Cube

Modules with maximum scalability

From individual all-in-one containers through to large container parks, Rittal offers the maximum possible scalability with its comprehensive portfolio of solutions. For larger applications, uninterruptible power supply and cooling modules in the same container pitch pattern are added to the RiMatrix Data Cubes.
For the conventional components of rack, power, cooling and monitoring, Rittal and its strategic partners Innovo Cloud and Lefdal also offer "IT as a Service", together with a location – the Lefdal Mine Datacenter in Norway – which can save up to 40 percent energy costs annually compared with a data centre in Germany.

RiMatrix Data Cube Power:
Modular UPS systems with redundancy to supply one or more IT modules

Individual equipment:
All containers are equipped with the necessary infrastructure (lighting, service sockets, structured cabling etc.)

Low-voltage distributor:
Complete distributor system with connection point for the main supply and the outgoing feeders from all PDUs

IT cooling:
Cold water or coolant-based systems for energy-efficient cooling of the entire server inlet air zone, speed-controlled and with redundancy

RiMatrix Data Cube IT

Design			RDC IT 50/10-L-III	RDC IT 60/12-L-II	
Maximum total IT output in kW			50	60	
Maximum IT output per rack in kW			5	5	
Redundancy of cooling system			2n	n+1	
Redundancy of power supply			2n	2n	
Cooling concept			LCP systems are positioned between the racks, and depending on the variant, are either flush with or set forward from the enclosure suite. These systems cool the entire cold aisle in front of the servers and have a redundant design in the container variants. The variants with a second set of cold water pipelines also support n+n redundancies.		
Power concept			The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply to which one or two UPS-buffered supply lines may be connected. A RiMatrix Data Cube Power with integral UPS may also be used to supply the containers. The container peripherals are supplied via an additional C-line.		
Racks	Server rack W x H x D mm	600 x 2000 x 1200	10	12	
	Network rack W x H x D mm	800 x 2000 x 1200	1	1	
	Technical rack W x H x D mm	600 x 2000 x 600	–	–	
		600 x 2000 x 1200	1	1	
Current	Low-voltage distributor		1	1	
	UPS, modular		–	–	
	PDU		11 x 2	13 x 2	
Cooling	Quantity		6 x LCP CW	4 x LCP CW	
	Pipe systems		2 set(s)	1 set(s)	
Container size L x W x H mm (external dimensions)			12192 (40 ft.) x 3000 x 3000	12192 (40 ft.) x 3000 x 3000	

	RDC IT 90/8-M-I	RDC IT 100/10-L-II	RDC IT 100/10-L-III
	90	100	100
	10	10	10
	n+1	n+1	2n
	2n	2n	2n
	Use of the zero-U-space cooling system (ZUCS) optimises use of the interior space by positioning the cooling units underneath the racks in the raised floor. Efficient EC fans ensure a constant server inlet air temperature in the shielded cold aisle. This system provides a redundancy of n+1.	LCP systems are positioned between the racks, and depending on the variant, are either flush with or set forward from the enclosure suite. These systems cool the entire cold aisle in front of the servers and have a redundant design in the container variants. The variants with a second set of cold water pipelines also support n+n redundancies.	
	The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply to which one or two UPS-buffered supply lines may be connected. A RiMatrix Data Cube Power with integral UPS may also be used to supply the containers.	The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply to which one or two UPS-buffered supply lines may be connected. A RiMatrix Data Cube Power with integral UPS may also be used to supply the containers. The container peripherals are supplied via an additional C-line.	
	8	10	10
	1	1	1
	1	–	–
	–	1	1
	1	1	1
	–	–	–
	9 x 2	11 x 2	11 x 2
	9 x ZUCS	6 x LCP CW	6 x LCP CW
	1 set(s)	1 set(s)	2 set(s)
	7250 x 3000 x 3000	12192 (40 ft.) x 3000 x 3000	12192 (40 ft.) x 3000 x 3000

RiMatrix Data Cube IT

Design			**RDC IT 200/10-L-II**	
Maximum total IT output in kW			200	
Maximum IT output per rack in kW			20	
Redundancy of cooling system			n+1	
Redundancy of power supply			2n	
Blob arrangement			–	
Cooling concept			Energy-efficient LCP systems with a cold water supply are used as cooling systems, and can each produce a cooling output of up to 55 kW. These systems are positioned in the row between the server racks and can easily be set forward into the cold aisle. This brings the cold air directly in front of the servers for cooling without deflection losses.	
Power concept			The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply to which one or two UPS-buffered supply lines may be connected. A RiMatrix Data Cube Power with integral UPS may also be used to supply the high-performance containers. The container peripherals are supplied via an additional C-line.	
Racks	Server rack W x H x D mm	600 x 2000 x 800	–	
		600 x 2000 x 1200	10	
	Network rack W x H x D mm	800 x 2000 x 800	–	
		800 x 2000 x 1200	1	
	Technical rack W x H x D mm	600 x 2000 x 1200	1	
Current	Low-voltage distributor		1	
	UPS, modular		–	
	PDU		11 x 2	
Cooling	Quantity		6 x LCP CW	
	Pipe systems		1 set(s)	
Container size L x W x H mm (external dimensions)			12192 (40 ft.) x 3000 x 3000	

	RDC IT 200/10-L-I	RDC IT 200/10-ISO L-I
	200	200
	20	20
	n+1	n+1
	2n	2n
	The racks and cooling systems are arranged so that two racks form a unit with one LCP. An additional LCP in the suite ensures redundancy. All racks are cooled evenly and energy-efficiently via the shared cold aisle, even with varying loads.	
	Energy-efficient LCP systems with a cold water supply are used as cooling systems, and can each produce a cooling output of up to 55 kW. These systems are positioned in the row between the server racks and can easily be set forward into the cold aisle. This brings the cold air directly in front of the servers for cooling without deflection losses.	
	The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply to which one or two UPS-buffered supply lines may be connected. A RiMatrix Data Cube Power with integral UPS may also be used to supply the high-performance containers. The container peripherals are supplied via an additional C-line.	
	–	10
	10	–
	–	1
	1	–
	–	–
	1	1
	–	–
	11 x 2	11 x 2
	7 x LCP CW	7 x LCP CW
	1 set(s)	1 set(s)
	12192 (40 ft.) x 3000 x 3000	12192 (40 ft.) x 2438 x 2896 (ISO High Cube)

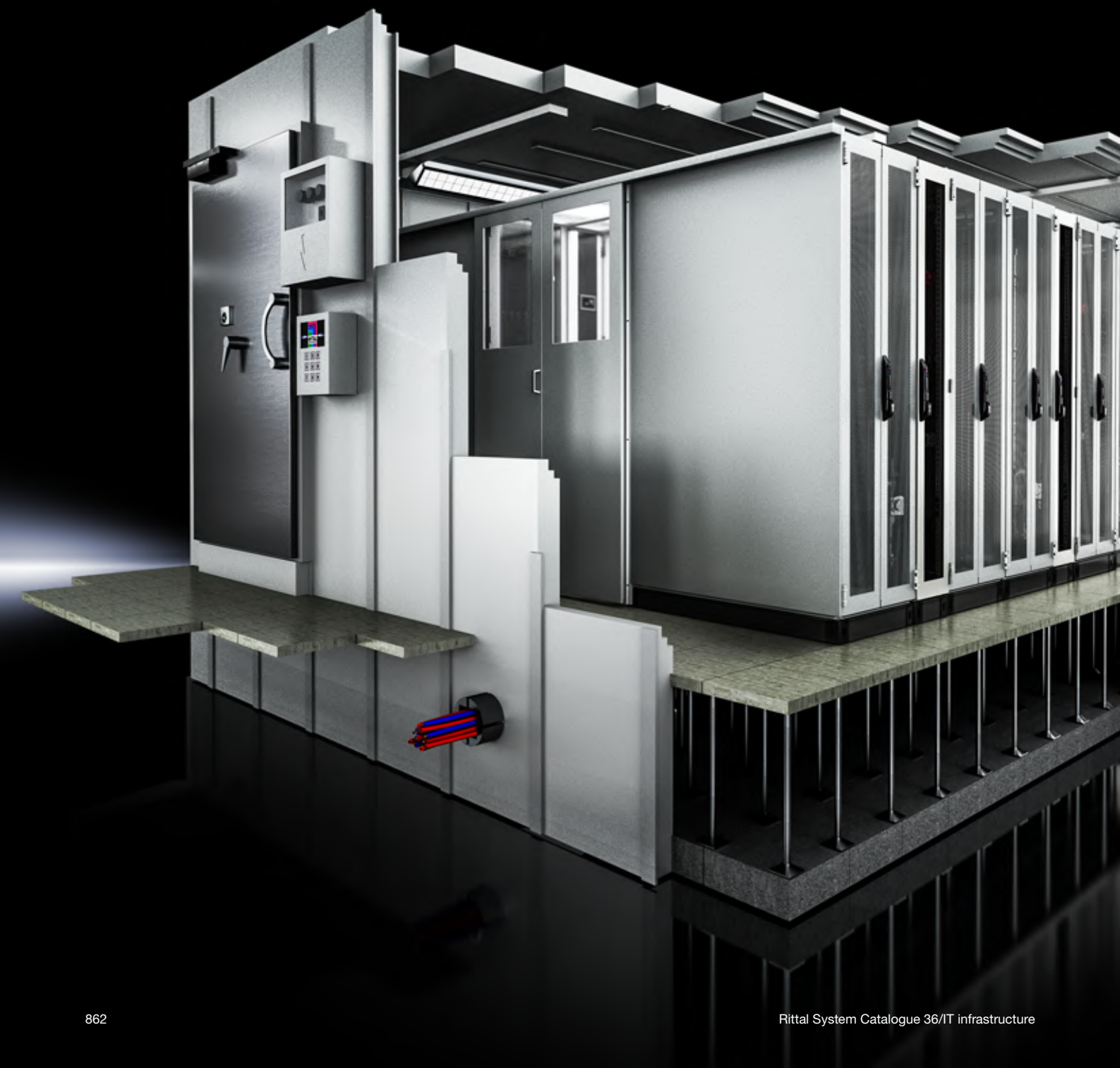
RiMatrix Data Cube All-in-One

Design			**RDC AIO 35/3-M-II**	**RDC AIO 45/8-L-II**	
Maximum total IT output in kW			35	45	
Maximum IT output per rack in kW		Server rack	10	5	
		Network rack	5	5	
Redundancy of cooling system			n+1	n+1	
Redundancy of power supply			2n	2n	
Cooling concept			LCP systems are positioned between the racks, and depending on the variant, are either flush with or set forward from the enclosure suite. These systems cool the entire cold aisle in front of the servers and have a redundant design in the container variants. Coolant-based DX systems may also be used in the AIO variants, which are linked to the relevant external unit. These may also be optionally secured directly to the outer container sleeve.		
Power concept			The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply; the integral modular UPS is positioned directly at the infeed to the B-line. The container peripherals are supplied via an additional C-line.		
Racks	Server rack W x H x D mm	600 x 2000 x 1200	3	8	
	Network rack W x H x D mm	800 x 2000 x 1200	1	1	
	Technical rack W x H x D mm	600 x 2000 x 600	–	–	
		600 x 2000 x 1200	–	–	
Current	Low-voltage distributor		1	1	
	UPS, modular		40 + 20 kW	60 + 20 kW	
	PDU		4 x 2	9 x 2	
Cooling	Quantity		5 x LCP DX	6 x LCP DX	
	Pipe systems		Single	Single	
Container size L x W x H mm (external dimensions)			7250 x 3000 x 3000	12192 (40 ft.) x 3000 x 3000	

	RDC AIO 60/6-M-I	RDC AIO 90/8-L-II	RDC AIO 180/16-L-II	RDC AIO 180/16-L-III
	60	90	180	180
	10	10	10	10
	–	5	5	5
	n+1	n+1	n+1	2n
	2n	2n	2n	2n
	Use of the zero-U-space cooling system (ZUCS) optimises use of the interior space by positioning the cooling units underneath the racks in the raised floor. Efficient EC fans ensure a constant server inlet air temperature in the shielded cold aisle. This system provides a redundancy of n+1.	LCP systems are positioned between the racks, and depending on the variant, are either flush with or set forward from the enclosure suite. These systems cool the entire cold aisle in front of the servers and have a redundant design in the container variants. The variants with a second set of cold water pipelines also support n+n redundancies.		
	The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. A UPS is already integrated into the RDC-AIO 60/6-M-II.	The container main power supply is split among individual outgoing feeders to the PDUs in the individual enclosures via a low-voltage distributor. Each enclosure has an A supply and a B supply, thereby achieving n+1 redundancy. The main distributor offers separate connections for the A and B supply; the integral modular UPS is positioned directly at the infeed to the B-line. The container peripherals are supplied via an additional C-line.		
	6	8	2 x 8	2 x 8
	1	1	2 x 1	2 x 1
	1	–	–	–
	–	–	–	–
	1	1	2 x 1	2 x 1
	60 + 20 kW	100 + 20 kW	2 x (100 + 20 kW)	2 x (100 + 20 kW)
	7 x 2	9 x 2	2 x (9 x 2)	2 x (9 x 2)
	6 x ZUCS for server zone 1 x ZUCS for UPS zone	6 x LCP CW	2 x (6 x LCP CW)	2 x (6 x LCP CW)
	1 set(s)	1 set(s)	2 x 1 set(s)	2 x 2 set(s)
	7250 x 3000 x 3000	12192 (40 ft.) x 3000 x 3000	12192 (40 ft.) x 3000 x 3000	12192 (40 ft.) x 3000 x 3000

Security room

High availability for data centres



Customised protection from physical threats

- Innovative services provided by regional governments and banks, for example, demand the highest standards of security for storing sensitive citizen data and protecting it from manipulation.
- This data must be protected from physical threats such as fire, smoke, corrosive gases, dust and water, as well as unauthorised access.
- Security rooms are a room-within-a-room solution, in other words, a security room is constructed from base, wall and ceiling elements in an existing building and can be flexibly adapted to suit the local conditions, especially if changes cannot be made to the building's structure.

Adaptation to the building infrastructure and operational IT requirements

- The basic protection room/basic protection Plus room provides a high-quality, system-tested solution. The basic protection room is an optimum, modular room-within-a-room solution for protecting IT components and creating technical rooms. The flexible modular system allows it to be extended whilst operational.
- The high-availability room offers maximum physical protection for data centres. The system was certified by ECB (European Certification Body GmbH) to ECB·S regulations. The modular concept offers the same benefits as a basic protection room, but with a higher level of protection.

Tested system solutions

- System-tested quality means that the entire solution has been tested for fire protection, intruder protection, smoke protection and water-/dust-tightness in accordance with the specified standards.
- System testing covers the entire structure, comprising the cell structure and built-in modules such as doors, cable shields and ventilation units.
- Testing is carried out by accredited institutes and documented in test reports.

Basic Protection room and Basic Protection Plus room (GSR)

IT power Page 722 **IT cooling** Page 756 **IT monitoring** Page 798

Your benefits with GSR, GSR Plus and HVR
- System-tested protection
- Multi-functional risk coverage
- Dust- and noise-reduced installation
- Dismantling and reassembly plus extendibility = investment security
- Adaptation of the different room systems

With HVR only:
- System-tested high-availability protection
- ECB·S certification
- Independent quality monitoring

High security requirements
The Basic Protection room provides a system-tested solution for protecting infrastructure components such as extinguisher systems, uninterruptible power supplies and cooling.
The Basic Protection Plus room also offers solid basic protection for IT in addition to protection of infrastructure components.

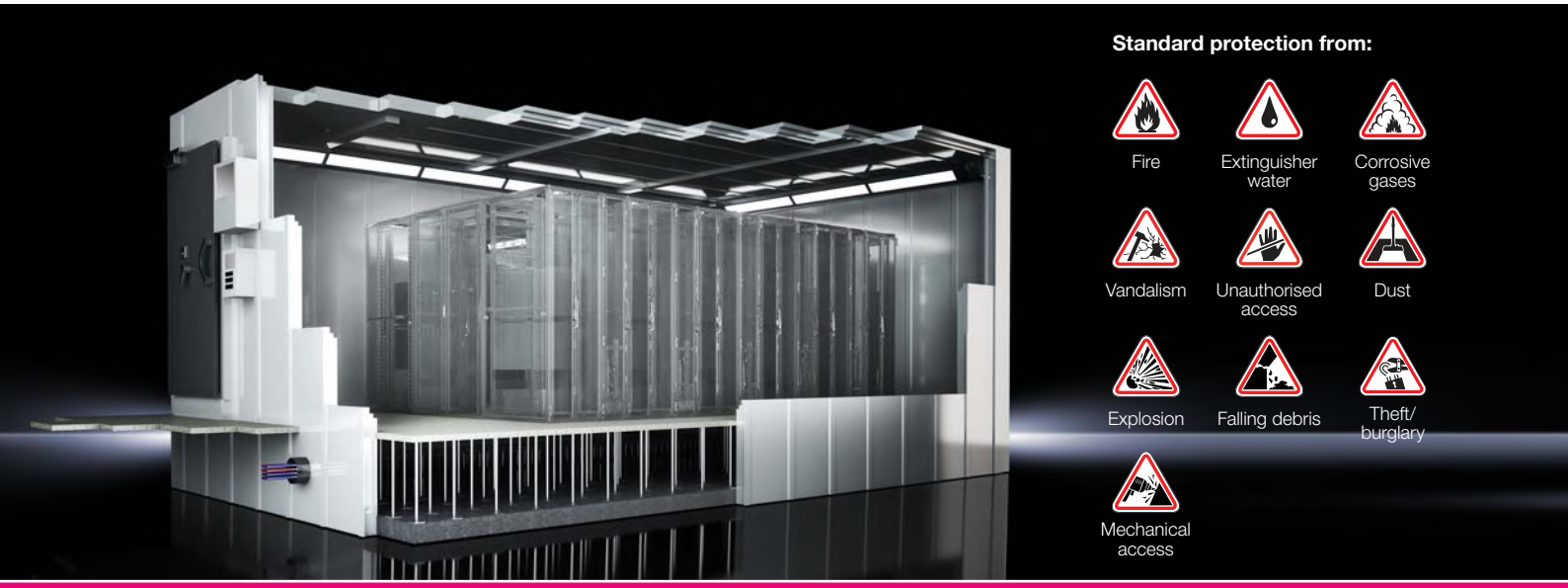
Structure of the Basic Protection room
- Element core made from thermally effective insulating material
- Robust, encapsulated sheet steel cassette panels
- Innovative connection system using patented profile technology
- Use of temperature- and humidity-resistant seals

Criterion	Standard	
System testing	System testing	
Fire protection	ECB·S certification to EN 1047-2, 50 K temperature increase and 85% rel. humidity up to 24 hours (post-heating period), 60 minutes flame impingement time	
	50 K temperature increase and 85% rel. humidity without post-heating period, flame impingement time 30 minutes	
	F 120 to DIN 4102; EI 120 (wall) to EN 1363 (component-tested)	
	F 90 to DIN 4102	
	EI 90 to EN 1363	
Corrosive combustion gases	Acrid gas-tightness based on DIN 18 095	
Falling debris	Impact test 200 kg from a drop height of 1.5 m with impact energy of 3,000 Nm	
Water	Protection category IP X6 to IEC 60 529	
	Protection from standing water	
Dust	Protection category IP 5X to IEC 60 529	
Unauthorised access	Resistance class RC4, tool attack analogous to DIN/EN 1630, door system only	
	Resistance class RC3, tool attack analogous to DIN/EN 1630	
	Resistance class RC2, tool attack analogous to DIN/EN 1630	
Explosion	Detonation test	
EMC	Shield attenuation levels of up to 60 dB in the frequency range from 30 MHz to 3 GHz	

System-tested structures are tested as a complete unit, comprising the cell structure and built-in modules such as doors, cable shields or ventilation units.
By contrast, generic component testing only refers to individual parts.

Conventional construction methods refer to room structures made of plasterboard, concrete and other standard construction materials which do not offer sufficient protection for data centre applications. Conventional construction methods are generally unsuitable for use as a fire wall and are only component-tested.

High-Availability room (HVR)



IT power Page 722 **IT cooling** Page 756 **IT monitoring** Page 798

Maximum security
The High-Availability room offers maximum physical protection for data centres and IT system locations. The system was certified by ECB (European Certification Body GmbH) to ECB·S regulations. This certification confirms that the High-Availability room meets the requirements of EN 1047-2 without restriction. Moreover, the construction of the security room is subject to continuous quality monitoring by an independent agent.

Structure of the High-Availability room
- Complex 4-layer element core made of thermally effective insulation substances
- Robust, encapsulated sheet steel cassette panels
- ECB·S tested, multiple lock, panic release
- Patented connection system
- Fireproof floor elements
- Use of extremely temperature- and humidity-resistant seals

	Basic Protection room	Basic Protection Plus room	High-Availability room
	■	■	■
	–	–	■
	–	■	■
	–	–	■
	■	■	■
	■	■	–
	■	■	■
	■	■	■
	■	■	■
	–	–	■
	■	■	■
	–	–	■
	–	□	■
	■	■	■
	–	–	■
	□	□	□

■ Standard □ Option

Open Compute Project (OCP)

Big data is a subject which is shaking up many areas of industry, commerce and trade. It is not only that data volumes are increasing exponentially. Also important is that efficient and fast data processing will in future be more and more decisive for business success.
The OCP community came together to find solutions to this challenge. The prime objective of the Open Compute Project (OCP) is to reduce the investment and operating costs, energy consumption and environmental impact of data centres by way of innovative, fully standardised IT architectures. To this end, the OCP provides an open platform for the sharing of ideas and know-how, as a vehicle for the definition of ground-breaking standards for the data centre of the future.

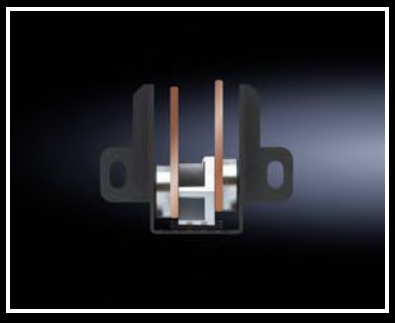
IT infrastructure – Architectures for the future
As a leading manufacturer of IT infrastructures, Rittal is proud to be a member of the OCP community. Expertise in the standardization of data centre architectures, in particular, has established Rittal's reputation as a strong partner when it comes to demanding OCP-related tasks.
As well as building application-specific racks, Rittal has also extended its standard portfolio to include the Open Compute Project segment. This means that Rittal can now handle customer-specific enquiries as well as requests for standardised racks based on the latest OCP design. As well as the rack itself, Rittal also offers a comprehensive range of accessories, a special power supply unit, and a cooling system tailored to innovative OCP architecture, reinforcing Rittal's image as an operational technology (OT) portfolio provider to the OCP segment.

bel POWER SOLUTIONS & PROTECTION
a bel group

In a joint collaboration with Bel Power Solutions & Protection, Rittal provides power supplies for OCP racks. These innovative and efficient power distributors are a key element of any OCP architecture. Substantial power savings can be made by transforming the power centrally and distributing it via the busbars that typify an OCP system.

48 V DC/36 kW

48 V DC/15 kW



12 V DC/6.6 – 13.2 kW

Open Compute Project (OCP)

Rack design for greater flexibility

Tried-and-tested rack design

- Complies with Open Rack Standards 1.2 and 2.0
- Stable, firmly linked frame structure on castors
- Prepared to accommodate special OCP hardware with a system width of 21″ at the front
- Highly efficient power distribution by connecting the hardware directly to the busbar integrated into the rack
- UL listed, CE compliant
- Variants available for both system voltages 12 V DC and 48 V DC
- Potential output range of a rack based on OCP: 13.2 kW – 40 kW

More flexibility

- Doors available with a broad selection of lock options for keys, magnetic cards or numerical codes
- One-piece side panel for the end of row (EOR) rack
- Modular configuration of busbars

Variable interior

- Height units in the Open Compute Design with a variable OpenU pitch pattern (OU) from 1 OU (48 mm) to 3 OU
- Preconfigured slide rails for direct installation of servers, height-adjustable on the OpenU (OU) pitch pattern
- 21″/19″ adaptor for the additional integration of 482.6 mm (19″) components optionally available
- Standard 1 U 482.6 mm (19″) adaptor for tool-free installation of 19″ hardware
- Special 482.6 mm (19″) EIA brackets in various heights to accommodate multiple 19″ devices

Standard R-OCP V2 rack

OCP rack, 41 OpenU (OU), for use in energy-efficient IT architectures based on the principles of the Open Compute Project. Depending on the variant, with split 12 V DC busbar fitted at the rear, or without busbar for individual configuration. Depending on accessories and the use of power packs, one (single) or two (dual) power zones may be used in the rack.

Benefits:
- Complies with Open Rack Standards 1.2 and 2.0
- Stable, firmly linked frame structure on castors
- Height units in the Open Compute Design with a variable OpenU pitch pattern (OU) of between 1 OU (48 mm) and 3 OU
- Pre-assembled slide rails for direct installation of servers, height-adjustable on the OpenU (OU) pitch pattern
- Prepared to accommodate special OCP hardware with a system width of 21" at the front
- Highly efficient power distribution by connecting the hardware directly to the 12 V DC busbar integrated into the rack
- 21"/19" adaptor for the additional integration of 482.6 mm (19") components optionally available
- Matching OCP power packs (power shelves) and batteries (back-up units) for central power supply and protection optionally available in the rack
- Extendible up to a maximum of 3 busbars

Material:
- Frame: Sheet steel

Colour:
- RAL 9005

Supply includes:
- Firmly linked frame structure, with fitted castors, without doors, without side panels
- 2 pairs of slide rails, 3 OU, pre-assembled
- 16 pairs of slide rails, 2 OU, pre-assembled

Please observe the product-specific scope of supply.

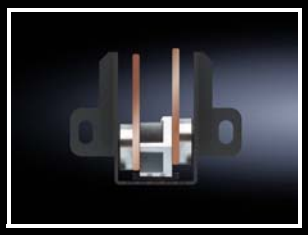
Standards:
- Open Rack Standard V2

Approvals:
- UL

Units OU	Packs of	41	41	Page
Width mm		600	600	
Height mm		2246	2246	
Depth mm		1068	1068	
Design		OCP V2 rack, deep, without busbar, for individual configuration	OCP V2 rack, deep, incl. preconfigured 12 V DC busbar with 2 power zones	
Load capacity		15,000 N	15,000 N	
Colour		RAL 9005	RAL 9005	
Power consumption min./max. kW		–	6.6 / 13.2	
Model No.	1 pc(s).	**7100.200**	**7100.221**	
Product-specific scope of supply				
1 x OCP busbar 12 V DC		–	■	
Also required				
OCP busbar	1 pc(s).	7100.312	–	871
Accessories				
OCP busbar	1 pc(s).	–	7100.312	871
OCP adaptor	2 pc(s).	7100.401	7100.401	871
OCP V2 side panel	2 pc(s).	7100.501	7100.501	871
OCP PDU		see page	see page	872

OCP busbar

Design	Output range	Packs of	**Model No.**
12 V DC	6.6 - 13.2 kW	1 pc(s).	**7100.312**



OCP busbar 12 V DC for power distribution in a standard R-OCP V2 rack. The busbar is fitted at the rear and is used to supply power to the hardware in the rack. The hardware and busbar make contact via a clip connection at the rear of the hardware.

Benefits:
– Multiple 12 V DC busbars may be combined
– Simple configuration of two to one power zone
– Greater energy efficiency with silver-plated contact area

Material:
– Copper, zinc-plated, silver-plated

Supply includes:
– Assembly parts

OCP V2 side panel

Height mm	Depth mm	Packs of	**Model No.**
2246	1068	2 pc(s).	**7100.501**

OCP V2 side panel, 1-piece, for finishing off a rack suite with standard R-OCP V2 racks.

Material:
– Sheet steel

Colour:
– RAL 9005

Supply includes:
– Assembly parts

OCP adaptor

U OU	Packs of	**Model No.**
1	2 pc(s).	**7100.401**

21"/19"
Adaptor for installing 482.6 mm (19") components in the 21" OCP rack system. The adaptor is screw-fastened to the enclosure frame.

Material:
– Sheet steel

Supply includes:
– Assembly parts

Accessories

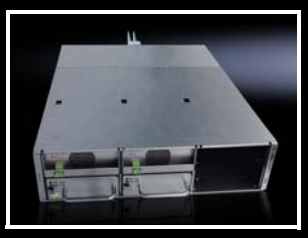
OCP PDU

The OCP PDU installed on the rack is needed to supply power to the OCP power shelves. The OCP PDU distributes power from the data centre to the power shelves fitted in the rack.

Material:
– Enclosure: Sheet steel

Supply includes:
– Connection cable

Input voltage	Infeeds	Phases per infeed	Output voltage	Number of outputs	Rated voltage A	Type of electrical connection	Overvoltage protection	To fit Model No.	Packs of	**Model No.**
240 / 415 V AC	1	3~	240 / 415 V AC	2	32	IEC 60 309	■	7100.200/ 7100.221	1 pc(s).	**7100.911**
277 / 480 V AC	2	3~	277 / 480 V AC	2	20	L22-20P	■	7100.200/ 7100.221	1 pc(s).	**7100.912**
277 / 480 V AC	1	3~	277 / 480 V AC	2	30	L22-30P	■	7100.200/ 7100.221	1 pc(s).	**7100.913**
48 V DC	2	–	48 V DC	2	250	–	–	7100.200/ 7100.221	1 pc(s).	**7100.914**
200 / 415 V AC	1	3~	54.5 V DC	3	–	–	–	7100.200	1 pc(s).	**7100.915**



OCP Power Shelf

The power shelf connects the power supply to the busbar of the OCP rack, while at the same time functioning as a rack-mounted frame for the power supply units and the battery back-up units. Depending on the variant, a built-in controller is pre-fitted for monitoring the power supply.

Also required:
– OCP PDU, see page 872
– OCP Power Supply Unit, see page 873

Accessories:
– OCP Battery Back-up Unit, see page 873
– OCP Power Supply Unit, see page 873

Design	Number of slots	Redun-dancy	Output voltage	Active power kW	Number of outputs	Height OU	Product-specific scope of supply	To fit Model No.	Packs of	**Model No.**
Shelf type: AC-DC	3 x PSU / 3 x UPS	2+1	12 V DC	6.6	1	3	–	7100.221	1 pc(s).	**7100.921**
Shelf type: AC/DC-DC	6 x PSU	3+3 / 5+1	12 V DC	18	3	1	Built-in controller	7100.200	1 pc(s).	**7100.922**
Shelf type: AC/DC-DC	6 x PSU	3+3 / 5+1	12 V DC	18	1	1	Built-in controller	7100.221	1 pc(s).	**7100.923**
Shelf type: AC/DC-DC	6 x PSU	3+3 / 5+1	48 V DC	24	1	1	Built-in controller	7100.200	1 pc(s).	**7100.924**
Shelf type: DC-DC	6 x PSU	3+3 / 5+1	12 V DC	15	1	1	Built-in controller	7100.221	1 pc(s).	**7100.925**
Blanking cover	–	–	–	–	–	1	–	7100.921	1 pc(s).	**7100.961**
Blanking cover	–	–	–	–	–	1	–	7100.921	1 pc(s).	**7100.962**

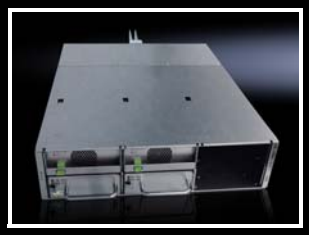
OCP Power Supply Unit

The power supply unit (PSU) is a power pack which centrally transforms the current or voltage in an OCP rack. The PSUs operate in parallel mode. A power shelf is needed for installation of the power supply units. Depending on the power shelf, up to 6 PSUs may be installed.

Benefits:
– May be connected with the system operational
– Parallel operation with active load distribution

Design	Input voltage	Output voltage	Active power kW	Power pack	To fit Model No.	Packs of	**Model No.**
Power Module PM	200 - 277 V AC	12.6 V DC	3.3	AC - DC	7100.921	1 pc(s).	**7100.931**
Power Module PM	90 - 300 V AC / 240 - 400 V DC	12.3 V DC	3	AC/DC - DC	7100.922/ 7100.923	1 pc(s).	**7100.932**
Power Module PM	90 - 300 V AC / 192 - 400 V DC	12.3 V DC	3.6	AC/DC - DC	7100.922/ 7100.923	1 pc(s).	**7100.933**
Power Module PM	200 - 277 V AC / 192 - 400 V DC	48 V DC	4	AC/DC - DC	7100.924	1 pc(s).	**7100.934**
Power Module PM	40 - 72 V DC	12,5 V DC	3	DC - DC	7100.925	1 pc(s).	**7100.935**
Blanking cover	–	–	–	–	7100.922/ 7100.923	1 pc(s).	**7100.963**

OCP Battery Back-up Unit



The battery back-up unit is an internal UPS in OCP architecture housed inside the rack, to ensure a controlled shutdown of the hardware and data backup in the event of a power failure.

Benefits:
– May be connected with the system operational
– Parallel operation with active load distribution

Design	Input voltage	Active power kW	To fit Model No.	Packs of	**Model No.**
Lithium ion battery back-up unit	52.5 V DC	3.6	7100.921	1 pc(s).	**7100.951**

Configurators/Tools/CAD data

IT Infrastructure

Security, availability and efficiency are crucial to the productive operation of a data centre. This calls for a comprehensive approach which addresses all the relevant requirements as well as the peripheral conditions in order to devise a suitable solution. As well as personalised advice, Rittal can also provide you with a comprehensive range of tools for selecting, configuring and monitoring all relevant parameters.

IT infrastructure selector

The selector supports you as partner, system integrator, system engineer or end customer in selecting the right IT products for your specific application.

Selector for:
- VX IT network/server enclosures
- Power Distribution Unit
- Liquid Cooling Package DX/CW
- Monitoring system CMC III
- Monitor/keyboard unit
- Fire alarm and extinguisher system DET-AC III

Benefits:
- All product segments in the data centre at a glance: Network/server racks, solutions for IT cooling, IT power and IT monitoring
- For added value, suitable accessories are suggested in every segment.
- The result is an individual IT infrastructure, ready for you to request a quote from Rittal.

Note:
- Use it online at www.rittal.com/it-configurator

RiMatrix S selector

Your selector for standardised data centres for SMEs, branch concepts and flexible cloud applications. Your solution is configured on the basis of standardised data centre modules.

Benefits:
- RiMatrix S at a glance
- Explanation of the option packages
- Efficiency calculation for your location
- As the outcome, you can save your compiled RiMatrix S solution as a PDF file.

Note:
- Use it online at www.rittal.com/configurators
- Download for free from the Google Play Store or App Store

Android app

iPhone app

Micro Data Center configurator

Configuration of your security safe, including a range of configuration components.

Benefits:
- Your complete micro data centre in just a few steps
- Individual selection of configuration components
- When you have finished, you can request a quote for your current configuration

Note:
- Configure online at www.rittal.com/mdc-configurator

Configurators/Tools/CAD data

PDU configurator

Customise PDUs from the Rittal standard portfolio to suit your specific requirements. Assisted by the Rittal Configuration System (RiCS), you can then visualise your configured solution directly during the selection process.

The modular concept:
- Adapt existing standard PDUs (built to order), delivery time up to 14 days
- Use a modular system comprised of individual system modules
- Wide range of accessories
- Additional modules, e.g. for overvoltage protection and for measuring differential current

Benefits:
- List and visualise your configuration
- Delivery times are shown transparently
- Get direct pricing information when you log into the online shop

Note:
- Use it online at www.rittal.com/configurators

IT cooling calculator

Simple selection of water-based Liquid Cooling Packages (LCP) for rack and suite cooling for your IT infrastructure.

Benefits:
- Calculation of the cooling output of LCPs
- Consideration of the various physical parameters
- Save your finished calculation as a PDF file

Note:
- Configure online at www.rittal.com/it-cc

DCIM – Data Centre Infrastructure Management

RiZone – Perfect support of IT infrastructure components
- Customer-focused and cost-efficient
- Optimum monitoring of IT infrastructure components
- The physical data centre infrastructure (OT devices) is incorporated into a data centre infrastructure management system.
- RiZone supports SNMP V1/V2C and SNMP V3
- Simple configuration
- Automatic detection of Rittal components
- Workflow editor for user-defined scenarios
- Enhanced security and reliability
- Enhanced energy efficiency
- Integration of SNMP-compatible third-party equipment

Note:
- Detailed product description, see page 830

Rittal – The System.

Faster – better – everywhere.

SYSTEM ACCESSORIES

Base/plinth
Base/plinth system VX 880
Base/plinth system AX 888
Base/plinth 890

Base
Base 892

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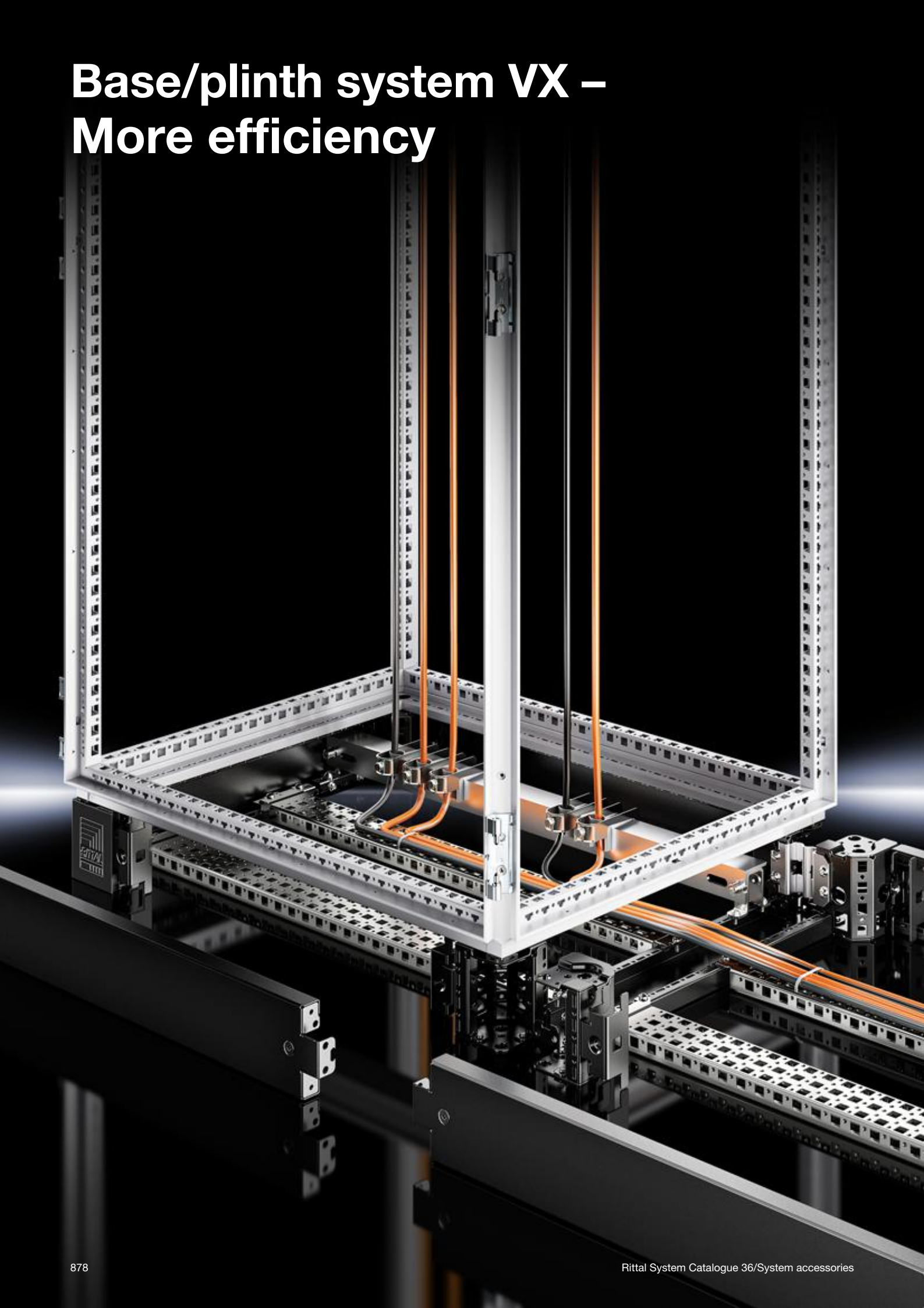
Base/plinth system VX – More efficiency

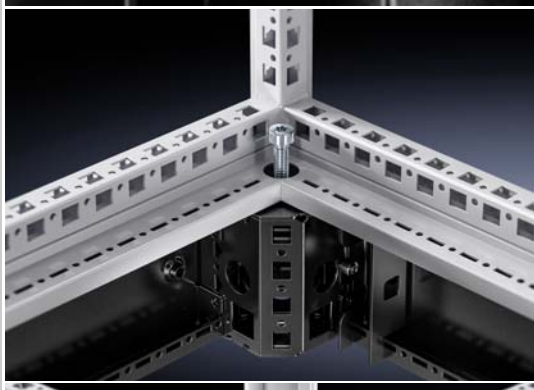


Integral centring aid

- The centring aid for base/plinth mounting on the enclosure frame ensures precise positioning of the enclosure on the base/plinth

Enclosure attachment

- The nuts integrated into the base/plinth corner piece allow screw-fastening directly from above, through the stable base frame, or from below, into the enclosure corner piece



Simple cable management

- Secure cable attachment and cable routing via the punched section with mounting flange in the base/plinth
- Gain space with simple integration of the cable clamping rail and C rail for secure, user-friendly cable routing

Base/plinth system VX

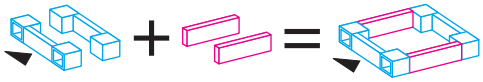
Modular base/plinth diversity

The innovative base/plinth system VX offers an unprecedented diversity of functions and applications. It combines all existing base/plinth functions in a single solution, as well as opening up many new applications. As if that isn't enough, it is also compatible with existing enclosure solutions TS, TS IT, SE, PC and IW. In short, it is a base/plinth system.

The base/plinth system VX comprises the following components:
- Base/plinth corner pieces with base/plinth trim panels, front and rear
- Base/plinth trim panels, sides

Thanks to fully symmetrical corner pieces, and by using the same base/plinth trim panels in the width and depth, the system opens up many new applications. For example, the vented trim panels and trim panels with brush strips available as accessories may now optionally be attached at the sides, or exchanged for the front/rear trim panels.

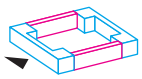
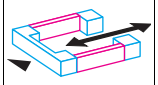
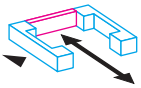
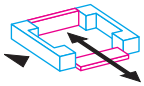
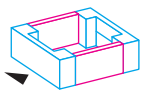
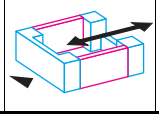
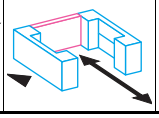
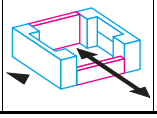
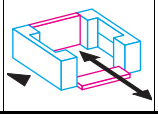
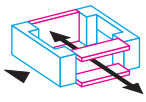
All trim panels may optionally be clipped into the corner piece, or securely screw-fastened. Depending on the application, for example, users can dispense with the trim panels between bayed enclosure suites, or a 100 mm high trim panel may be used to stabilise the base/plinth corner pieces. In combination with its extensive range of accessories, and thanks to its compatibility with enclosure accessories, the base/plinth system VX offers almost infinite possibilities in terms of siting, transportation, cable routing, cable attachment and base/plinth configuration.



One Model No. for the **base/plinth corner pieces with base/plinth trim panels,** front and rear

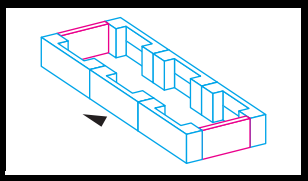
One Model No. for the **base/plinth trim panels,** sides

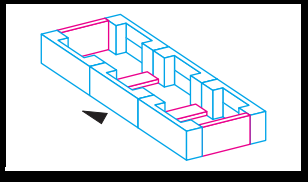
One complete **base/plinth VX**

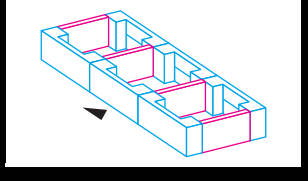
Base/ plinth height	**Basic form**	**Cable entry options**				
					Stabilisation of bayed base/plinths	
100 mm						
200 mm						

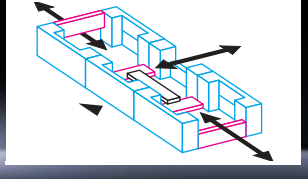
Configuration examples

Order includes	**Functional benefits**
3 packs Base/plinth corner pieces with base/plinth trim panels 1 pack Base/plinth trim panels, sides, 200 mm high	Continuous cable chamber
3 packs Base/plinth corner pieces with base/plinth trim panels 1 pack Base/plinth trim panels, sides, 200 mm high 1 pack Base/plinth trim panels, sides, 100 mm high 1 pack Baying brackets, internal (8617.500, packs of 6) 4 pc(s). are required for this solution	Additional stability during transportation with base/plinth trim panels rotated through 90°
3 packs Base/plinth corner pieces with base/plinth trim panels 2 packs Base/plinth trim panels, sides, 200 mm high	Shielding of the base/plinths from one another









Other options:
- Cable entry at the side by fitting a 100 mm base/plinth trim panel with brush strip
- Cable entry from the rear by dismantling one or more trim panels from the base/plinth corner pieces and replacing them with trim panels with brush strips
- Cable routing in the base/plinth by using punched sections with mounting flanges on the base/plinth trim panels

Base/plinth corner pieces with base/plinth trim panels, front and rear

Sheet steel
for VX, VX IT, VX SE, TE, TopConsole, one-piece console, PC, IW
High-load capacity base/plinth corner pieces with moulded self-positioning to the enclosure, may be used with or without trim panels depending on the application. Large openings in the corner piece for optimum access to the screw-fastening point, may be concealed with a plastic corner and baying cover.

Material:
– Base/plinth corner piece: Sheet steel
– Base/plinth trim panel, front/rear: Sheet steel
– Corner and baying cover: Plastic

Colour:
– RAL 9005

100 mm high supply includes:
– 4 base/plinth corner pieces, 100 mm high
– 4 corner covers
– 1 baying cover
– 2 base/plinth trim panels, front/rear, 100 mm high
– Assembly parts

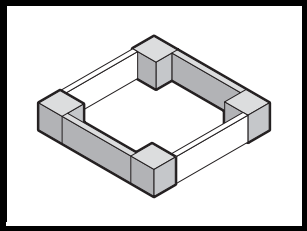
200 mm high supply includes:
– 4 base/plinth corner pieces, 200 mm high
– 4 corner covers
– 1 baying cover
– 1 base/plinth trim panel, front/rear, 200 mm high
– 2 base/plinth trim panels, front/rear, 100 mm high
– Assembly parts

100 mm high

For enclosure width mm	Model No.
300	**8640.000**
400	**8640.001**
600	**8640.002**
800	**8640.003**
850	**8640.004**
1000	**8640.005**
1100	**8640.006**
1200	**8640.007**
1600	**8640.008**
1800	**8640.009**

200 mm high

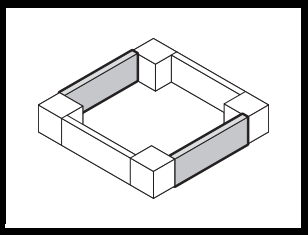
For enclosure width mm	Model No.
300	**8640.020**
400	**8640.021**
600	**8640.022**
800	**8640.023**
1000	**8640.024**
1200	**8640.025**
1600	**8640.026**
1800	**8640.027**



Also required:
– Base/plinth trim panels, sides, to finish off a unit, for additional stabilisation between base/plinths, or for interior configuration, see page 882

Accessories:
– Base/plinth trim panels with brush strip, see page 882
– Base/plinth trim panels, vented, see page 883
– Base/plinth installation bracket, see page 885
– Levelling component for base/plinth, see page 886
– Base mounting plate, see page 885
– Base/plinth adaptor for twin castors and levelling feet, see page 893
– Baying bracket, internal, see page 912
– Transport castors for base/plinth VX, see page 884
– C rails, see page 996

Base/plinth system VX



Base/plinth trim panels, sides

Sheet steel
for base/plinth VX
To finish off a base/plinth unit at the sides and for additional stabilisation or for the interior configuration of bayed base/plinths. One 200 mm high or two 100 mm high trim panels may optionally be fitted on 200 mm high base/plinths.

Material:
– Sheet steel

Colour:
– RAL 9005

Supply includes:
– 2 base/plinth trim panels
– Assembly parts

100 mm high

For enclosure depth mm	Model No.
300	**8640.030**
400	**8640.031**
500	**8640.032**
600	**8640.033**
800	**8640.034**
1000	**8640.035**
1200	**8640.036**

200 mm high

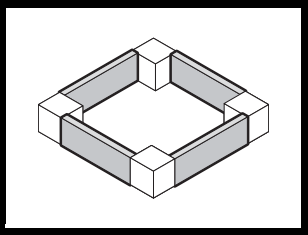
For enclosure depth mm	Model No.
300	**8640.040**
400	**8640.041**
500	**8640.042**
600	**8640.043**
800	**8640.044**
1000	**8640.045**
1200	**8640.046**

Accessories:

– Base/plinth installation bracket, see page 885

Possible alternative:

– Base/plinth trim panels with brush strip, see page 882
– Base/plinth trim panels, vented, see page 883



Base/plinth trim panels with brush strip

Sheet steel
for base/plinth VX
For cable entry in the base/plinth. With a base/plinth height of 200 mm, one or two trim panels with brush strips may optionally be used. Thanks to the complete symmetry of the base/plinth system VX, the trim panels with brush strip may either be fitted at the front, rear or side on the base/plinth corner piece.

Material:
– Base/plinth trim panels: Sheet steel
– Brush strip: Plastic, self-extinguishing

Colour:
– RAL 9005

Supply includes:
– 2 base/plinth trim panels with brush strip
– Assembly parts

For enclosure width/depth mm	Model No.
600	**8620.092**
800	**8620.093**
1000	**8620.094**
1200	**8620.095**

Base/plinth trim panels, vented

Sheet steel
for base/plinth VX
For venting the enclosure via the base/plinth. Specifically in applications such as power distribution where the enclosure gland plates are not used, this can be used to achieve a higher air throughput inside the enclosure. Various solutions to raise the roof and special roof plates with vent openings are also available for enclosure venting. With a 200 mm base/plinth height, one or two vented trim panels may optionally be used. Thanks to the complete symmetry of the base/plinth system VX, the vented trim panels may either be fitted at the front, rear or side on the base/plinth corner piece.

Material:
– Sheet steel

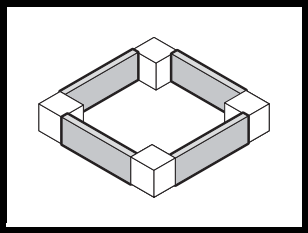
Colour:
– RAL 9005

Supply includes:
– 2 base/plinth trim panels, vented
– Assembly parts for mounting on the base/plinth corner piece

For enclosure width/depth mm	Model No.
600	**8620.090**
800	**8620.091**

Accessories:

– Filter mat, see page 883
– Base/plinth installation bracket, see page 885
– Spacers for lifting the roof, see page 964
– Roof plate with vent holes, see page 961



Filter mat

for base/plinth trim panel, vented
The filter mat is simply inserted into the trim panel from the rear.

Supply includes:
– 1 pack = 2 rolls, length 2 m each, may be shortened to required length

Packs of	Model No.
1 pc(s).	**8620.100**

Baying cover

for VX base/plinth
To neatly close the gap between two bayed base/plinths and it is required to close the gap at the rear when baying three or more base/plinths.

Material:
– Plastic ABS, halogen-free

Colour:
– RAL 9005

Note:
– A baying cover is already included as standard with the supply of base/plinth corner pieces with base/plinth trim panels, front and rear

Height mm	Packs of	Model No.
100	10 pc(s).	**8620.010**
200	10 pc(s).	**8620.011**

Base/plinth system VX

Cable chamber

for VX, VX SE
With integral system punchings for individual system accessories.

Height: 200 mm

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– 1 frame
– 2 trim panels front/rear
– Assembly parts for mounting on the enclosure

For enclosures		Packs of	Model No.
Width mm	Depth mm		
400	500	1 pc(s).	**8600.455**
400	600	1 pc(s).	**8600.465**
600	500	1 pc(s).	**8600.655**
600	600	1 pc(s).	**8600.665**
800	500	1 pc(s).	**8600.855**
800	600	1 pc(s).	**8600.865**
1200	500	1 pc(s).	**8600.255**
1200	600	1 pc(s).	**8600.265**

Accessories:

– Side panels for cable chamber, see page 884

Side panel

for cable chamber

Height: 200 mm

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– 2 side panels
– Assembly parts

For enclosure depth mm	Packs of	Model No.
500	2 pc(s).	**8600.510**
600	2 pc(s).	**8600.520**

Transport castors

for VX base/plinth
For locating onto the base/plinth corner piece, 100 or 200 mm high.

Load capacity:
– Maximum permissible load per twin castor: 750 N

Colour:
– RAL 9005

Supply includes:
– 4 twin castors, 2 x with, 2 x without locks

Floor clearance mm	Model No.
100	**8100.700**

Accessories:

– Base/plinth trim panels, sides, sheet, for stabilisation, see page 882
– Base/plinth trim panels, sides, stainless steel, for stabilisation, see page 887

Base mounting plate

for base/plinth VX, base/plinth AX and base/plinth, complete
For attaching the base/plinth to the floor.
For assembly screws up to 12 mm Ø.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
10 pc(s).	**2817.000**

Base/plinth installation bracket

for VX base/plinth
For configuring the base/plinth with punched sections with mounting flanges or cable clamp rails. To fit 100 and 200 mm high base/plinth trim panels in sheet steel and stainless steel.

Material:
– Stainless steel 1.4301 (AISI 304)

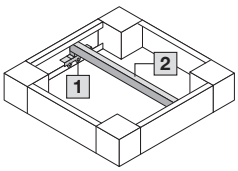
Supply includes:
– 2 installation brackets
– 2 mounting brackets for cable clamp rail
– Assembly parts

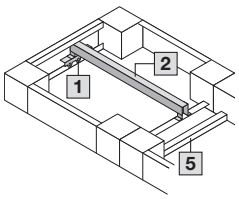
Note:
– For interior installation on upright base/plinth trim panels
– For base/plinth trim panels rotated through 90°, the installation bracket is not needed, because in this position, the system punchings of the base/plinth trim panels may be used directly

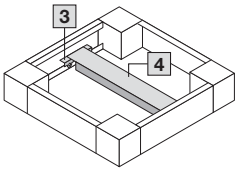
1 Installation bracket with mounting bracket for cable clamp rail
2 Cable clamp rail
3 Installation bracket
4 Punched section with mounting flange, 23 x 89 mm
5 Base/plinth trim panel, rotated through 90°

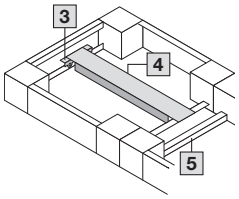
For base/plinth trim panel Height mm	Packs of	Model No.
100	2 pc(s).	**8620.400**
200	2 pc(s).	

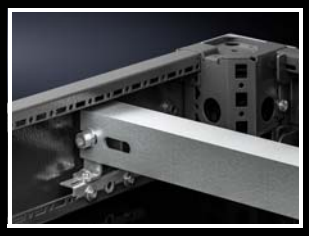
Accessories:
– Punched section with mounting flange, 23 x 64 mm, see page 991
– Punched section with mounting flange, 23 x 89 mm, see page 991
– Cable clamp rail, see page 1059











Base/plinth system VX

Levelling component

for VX base/plinth

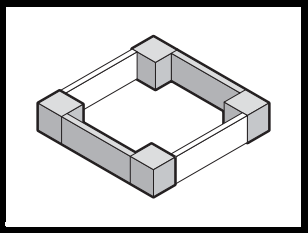
For retrospective levelling on uneven floors at the installation site up to a maximum of 15 mm. Installed through the base/plinth corner piece. Adjusted using a hex spanner, width across flats 19 mm.

Benefits:
- A door offset caused by uneven flooring can be corrected
- Installed on the assembled enclosure, i.e. no need to plan levelling in advance

Load capacity:
- Max. admissible load: 2500 N per levelling component (check the load capacity of the floor)

Supply includes:
- Assembly parts

For base/plinth height mm	Packs of	Model No.
100	4 pc(s).	**8100.710**
200	4 pc(s).	**8100.711**



Base/plinth corner pieces with base/plinth trim panels, front and rear

Stainless steel
for VX, VX SE, PC

High-load capacity base/plinth corner pieces with moulded self-positioning to the enclosure, may be used with or without trim panels depending on the application. Large openings in the corner piece for optimum access to the screw-fastening point, may be concealed with a plastic corner and baying cover.

Material:
- Base/plinth corner piece: Stainless steel 1.4301 (AISI 304)
- Base/plinth trim panel, front/rear: Stainless steel 1.4301 (AISI 304 steel)
- Corner and baying cover: Plastic

Surface finish:
- Trim panel: Grain size 400

100 mm high supply includes:
- 4 base/plinth corner pieces, 100 mm high
- 4 corner covers
- 1 baying cover
- 2 base/plinth trim panels, front/rear, 100 mm high
- Assembly parts

200 mm high supply includes:
- 4 base/plinth corner pieces, 200 mm high
- 4 corner covers
- 1 baying cover
- 1 base/plinth trim panel, front/rear, 200 mm high
- 2 base/plinth trim panels, front/rear, 100 mm high
- Assembly parts

For enclosure width mm	Height mm	Model No.
600	100	**8620.050**
800	100	**8620.051**
1000	100	**8620.052**
1200	100	**8620.053**
600	200	**8620.060**
800	200	**8620.061**
1000	200	**8620.062**
1200	200	**8620.063**

Also required:
- Base/plinth trim panels, sides, to finish off a unit, for additional stabilisation between base/plinths, or for interior configuration, see page 887

Accessories:
- Base/plinth installation bracket, see page 885
- Levelling component for base/plinth, see page 886
- Base mounting plate, see page 885
- Base/plinth adaptor for twin castors and levelling feet, see page 893
- Transport castors for base/plinth, see page 884
- C rails, see page 996

Base/plinth trim panels, sides

Stainless steel
for base/plinth VX
To finish off a base/plinth unit at the sides and for additional stabilisation or for the interior configuration of bayed base/plinths. One 200 mm high or two 100 mm high trim panels may optionally be fitted on 200 mm high base/plinths.

Material:
– Stainless steel 1.4301 (AISI 304)

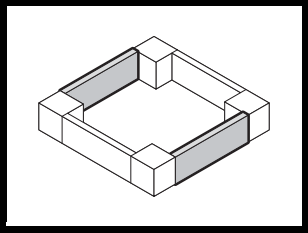
Surface finish:
– Brushed, grain size 400

Supply includes:
– 2 base/plinth trim panels
– Assembly parts

For enclosure depth mm	Height mm	Model No.
400	100	**8620.070**
500	100	**8620.071**
600	100	**8620.072**
400	200	**8620.080**
500	200	**8620.081**
600	200	**8620.082**

Accessories:

– Base/plinth installation bracket, see page 885

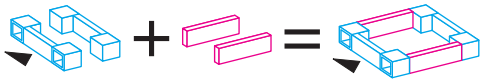


Base/plinth system AX

Modular base/plinth diversity

The innovative base/plinth system AX offers an unprecedented diversity of functions and applications.

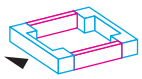
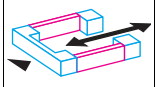
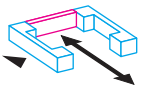
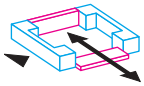
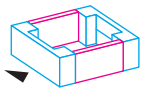
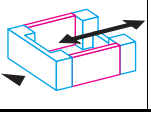
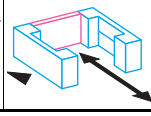
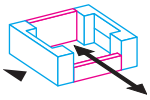
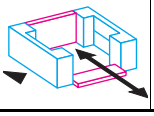
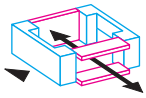
The base/plinth system AX comprises the following components:
– Base/plinth corner pieces with base/plinth trim panels, front and rear
– Base/plinth trim panels, sides

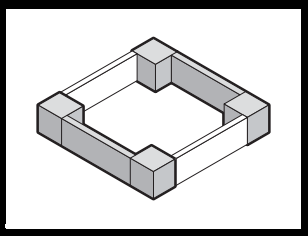


One Model No. for the **base/plinth corner pieces with base/plinth trim panels,** front and rear

One Model No. for the **base/plinth trim panels,** sides

One complete **base/plinth AX**

Base/plinth height	Basic form	Cable entry options			Stabilisation of bayed base/plinths	
100 mm						
200 mm						



Base/plinth corner pieces with base/plinth trim panels, front and rear

Sheet steel
for AX, AX IT
Base/plinth corner pieces with large opening for optimum access to the screw-fastening point, may be concealed with a plastic corner cover.

Material:
– Base/plinth corner piece: Sheet steel
– Base/plinth trim panel, front/rear: Sheet steel
– Corner cover: Plastic

Colour:
– RAL 9005

100 mm high supply includes:
– 4 base/plinth corner pieces, 100 mm high
– 4 corner covers
– 2 base/plinth trim panels, front/rear, 100 mm high
– Assembly parts

200 mm high supply includes:
– 4 base/plinth corner pieces, 200 mm high
– 4 corner covers
– 1 base/plinth trim panel, front/rear, 200 mm high
– 2 base/plinth trim panels, front/rear, 100 mm high
– Assembly parts

100 mm high

For enclosure width mm	Model No.
600	**2820.061**
800	**2820.081**
1000	**2820.101**
1200	**2820.121**

200 mm high

For enclosure width mm	Model No.
600	**2820.062**
800	**2820.082**
1000	**2820.102**
1200	**2820.122**

Also required:
– Side base/plinth trim panels, to finish off a base/plinth unit at the end or for interior configuration of the base/plinth, see page 889

Accessories:
– Base mounting plate, see page 885

Base/plinth trim panel, sides

Sheet steel
for base/plinth AX
To finish off a base/plinth unit at the sides or for the interior configuration of the base/plinth.
One 200 mm high or two 100 mm high trim panels may optionally be fitted on 200 mm high base/plinths.

Material:
– Sheet steel

Colour:
– RAL 9005

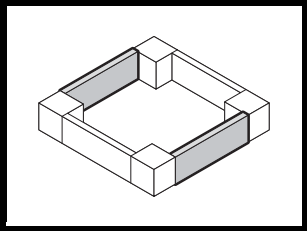
Supply includes:
– 2 base/plinth trim panels
– Assembly parts

100 mm high

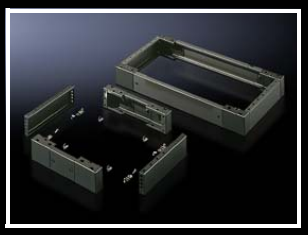
For enclosure depth mm	Model No.
300	**2820.310**
400	**2820.410**

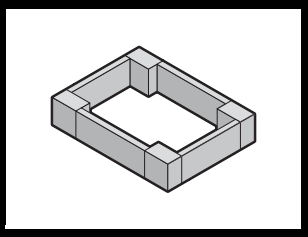
200 mm high

For enclosure depth mm	Model No.
300	**2820.320**
400	**2820.420**



Base/plinth





Base/plinth, complete

Sheet steel
for TP universal console
Trim panels, front and rear with fitted corner pieces and side trim panels.

Height: 100 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

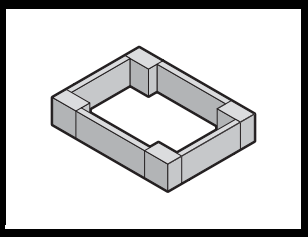
Colour:
– RAL 7022

Supply includes:
– 4 corner pieces
– 2 trim panels, front/rear
– 2 trim panels, side
– Mounting accessories for mounting on the enclosure

For consoles		Base/plinth depth mm	Model No.
Width mm	Depth mm		
600	500	450	**2807.200**

Accessories:

– Fastening bolt, see page 891
– Base mounting plate, see page 885



Base/plinth, complete

Stainless steel
for one-piece console, stainless steel

Height: 100 mm
Where necessary, 2 base/plinths may be installed one above the other.

Material:
– Stainless steel 1.4301 (AISI 304)

Surface finish:
– Brushed

Supply includes:
– 2 trim panels, front/rear
– 2 trim panels, side
– Mounting accessories for mounting on the enclosure

For enclosures / consoles		Model No.
Width mm	Depth mm	
600	400	**2865.000**
800	400	**2869.000**
1000	400	**2867.000**
1200	400	**2870.000**

Accessories:

– Levelling feet HD, see page 223

Base/plinth, static

for PC, IW
Design-coordinated with the enclosures, height 100 mm, with front projection.

Material:
– Sheet steel, 2.0 mm

Colour:
– RAL 7035
– Design component, front: RAL 7015

Supply includes:
– 1 design component, front
– 1 base/plinth component, rear
– 2 base/plinth trim panels, side

For depth mm	Packs of	Model No.
600	1 pc(s).	**8800.920**

Accessories:

– Twin castors 7495.000, see page 893
– Levelling feet 4612.000, see page 892
– Fastening bolt 2819.000, see page 891

Base/plinth

Fastening bolts

for base/plinth, complete and base/plinth, static

For mounting on base/plinth trim panels, side. The lockable fastening bolt allows the installation of cable clamp rails. Tighten with hex spanner, width across flats 19 mm.

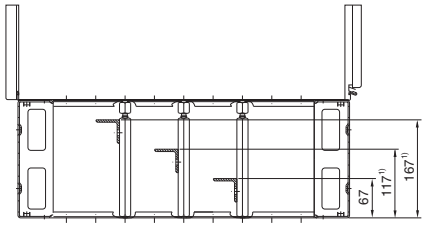
Material:
– Hexagonal steel

Surface finish:
– Zinc-plated

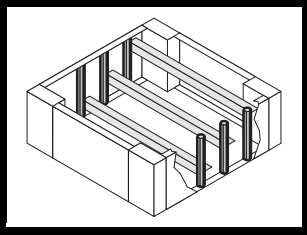
For base/plinth trim panel Height mm	Packs of	Model No.
100	10 pc(s).	**2819.000**
200	10 pc(s).	**2819.200**

Accessories:

– Cable clamp rail, see page 1059



[1)] Only for height 200 mm



Cross member

adjustable
for VX, VX SE, TP, PC, IW

To increase stability, adjustable to the enclosure depth.

Height: 70 mm

To increase stability, the cross member is positioned below the base frame of the enclosure and protrudes 138 mm at the front and rear. For deeper enclosures, the rear part may be extended and screw-fastened again. For screw-fastening to the floor and enclosure with mounting hole at the sides, front and rear. The castors and levelling feet may be secured to the welded nuts M12.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7015

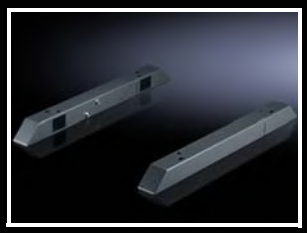
For enclosure depth mm	Model No.
400	**8601.450**
500	
600	**8601.680**
800	

Accessories:

– Twin castors 6148.000, 7495.000, see page 893
– Levelling feet 4612.000, see page 892

Assembly instruction:

– Ensure sufficient stability to prevent the enclosure from tipping over



Base/plinth

for FlatBox

For attachment purposes, the base/plinth may be mounted on the pre-existing thread in the base area of the FlatBox. There is a rear recess provided for cable entry.

Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– 4 levelling feet
– Assembly parts

For base area		Height mm	Packs of	Model No.
Width mm	Depth mm			
600	600	50	1 pc(s).	**7507.750**
700	700	50	1 pc(s).	**7507.755**

Base

Levelling feet

for VX, VX IT, VX SE, PC, IW
To compensate for height differences with floor irregularities. Mounting thread M12.

Load capacity:
– Max. admissible load: approx. 3000 N per levelling foot

For enclosure	Levelling range mm	Packs of	Model No.
Sheet steel	18 – 43	4 pc(s).	**4612.000**
Stainless steel	55 – 125	4 pc(s).	**8100.780**

Also required:
– For mounting on the base/plinth: Base/plinth adaptor, see page 893

Levelling feet

with internal adjustment, for VX IT
To compensate for floor irregularities. When used in the mounting bracket, the levelling feet are moved inwards to allow convenient operation from inside the enclosure so that the enclosure is easily levelled, even retrospectively.

Load capacity:
– Max. admissible static load: 6500 N per levelling foot

Supply includes:
– 4 levelling feet, M12, with TX30 hex socket drive
– 4 mounting brackets
– Assembly parts

Packs of	Model No.
4 pc(s).	**5301.326**

Note:
– Use levelling foot 4612.000 and base/plinth adaptor 8100.770 for mounting on the VX base/plinth

Levelling feet

for FlatBox
M10 x 20 mm
For screw-fastening onto the enclosure base when used as a floor-standing or desktop enclosure. Width across flats 17, mounting thread multi-tooth 30.

Load capacity:
– Max. admissible static load:
5500 N per levelling foot
700 N per enclosure

Packs of	Model No.
4 pc(s).	**7507.740**

Levelling feet

for VX, VX SE, PC
85 – 115 mm high
For mounting on enclosures, for easier floor cleaning and to compensate for floor irregularities ±15 mm.

Load capacity:
– Max. admissible load: 3,500 N per levelling foot

Material:
– Stainless steel 1.4301 (AISI 304)

Supply includes:
– Assembly parts

Packs of	**Model No.**
4 pc(s).	**2859.000**

Twin castors

Mounting thread M12 x 20.

For:
– Baying enclosure system VX
– Network/server racks VX IT
– Free-standing enclosure system VX SE
– PC enclosure system
– Pedestal base plate
– Pedestal 6106.200/6106.300
– TopConsole pedestals
– Industrial Workstation
– Data Rack

Supply includes:
– Packs of 4 twin castors, 2 x with, 2 x without locks
– Assembly parts

1	Maximum admissible static load (per castor)	75 kg
	Floor clearance	85 mm
	Colour	Black with grey running surface
	Model No.	**6148.000**

2	Maximum admissible static load (per castor)	120 kg
	Floor clearance	125 mm
	Colour	Black
	Model No.	**7495.000**

Note:
For mounting on the VX base/plinth, only twin castors 7495.000 may be used in combination with the base/plinth adaptor for twin castors, see page 893

Base/plinth adaptor

for twin castors and levelling feet
For mounting twin castors and levelling feet to the base/plinth.

Material	Packs of	**Model No.**
Sheet steel	4 pc(s).	**8100.770**
	4 pc(s).	**8100.771**

Also required:
– When fitting twin castors, side trim panels, see page 882/887, are required.

Base

Transport kit

for VX, VX IT empty enclosures
To easily transport empty enclosures to the point of use.

Load capacity:
– Max. static load: 2,000 N per set of castors, including enclosure

Supply includes:
– 4 castors
– 4 mounting brackets
– Assembly parts

Packs of	Model No.
1 pc(s).	**5301.515**

Assembly instruction:
– The base area must be open at the mounting points

Castor module

for VX, VX IT
For mobile use even with preconfigured enclosures. The castor module is screw-fastened to the structure directly underneath the base frame and is suitable for transporting configured enclosures on flat ground and inside buildings. The castor modules already have pre-integrated levelling feet, allowing the enclosure to be levelled directly on site at the point of installation. The castor module can remain underneath the enclosure.

Load capacity:
– Max. admissible load: Static 15,000 N
– Max. admissible load: Dynamic 10,000 N

Supply includes:
– 1 transport module with 2 castors
– 1 transport module with 2 castors, fixed
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**5301.516**
800	2 pc(s).	**5301.518**

Note:
– The maximum admissible load capacity (dynamic) of 10,000 N refers to rolling over flat ground

Assembly instruction:
– The base area must be open at the mounting points

Stabiliser

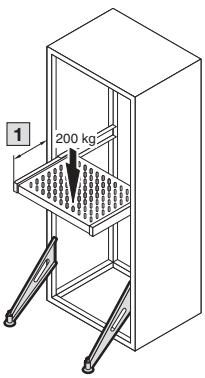
for VX IT
If required, the optional stabiliser for the VX IT may be retrofitted in situ at any time. With the front door open, simply snap onto the vertical sections of the enclosure frame and level to match the enclosure height. This enlarges the enclosure's footprint and makes it less likely to tip over when installed components are withdrawn from the enclosure or fitted in the front. It can be used as an alternative if the enclosures cannot be screw-fastened to the floor or secured in an enclosure suite. After installation, simply remove the stabiliser again. The stabiliser may be used on the enclosure frame without bottom-mounting and in combination with levelling feet or a base/plinth up to 200 mm high. The striking signal-red spray-finish draws attention to this trip hazard.

Packs of	Model No.
2 pc(s).	**5301.325**

Load capacity:
– Max. extension weight: 200 kg, point of gravity 250 mm from the enclosure front

Material:
– Sheet steel, spray finished in RAL 3001 (signal red)

Supply includes:
– 2 levelling stabilisers with fast, tool-free installation



1 Max. distance to the front edge of the enclosure 250 mm

Transport castors

for TE

The castors may be screw-fastened in the corner areas of the base frame in place of the levelling feet. Floor clearance: 58 mm, mounting thread M10 x 20

Supply includes:
– Assembly parts

Max. load capacity (static) per enclosure N	Packs of	Model No.
3000	4 pc(s).	**7000.672**

System divider

for VX, VX SE

Divides the enclosure width into two zones. For example, this allows mounting plates, cable clamp rails or swing frames from 600 mm wide enclosures to be fitted in 1200 mm wide enclosures.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

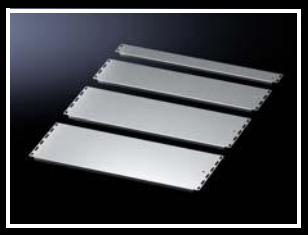
Supply includes:
– Assembly parts

Depth mm	Packs of	Model No.
500	2 pc(s).	**8620.900**
600	2 pc(s).	**8620.901**

Accessories:

– Swing frame mounting kit, see page 1078
– Cable clamp rail, see page 1059
– Support rails 48 x 26 mm, see page 996

Base



Gland plates

for VX, VX IT, VX SE
For individual configuration of the floor space. Potential equalisation is provided via assembly components and earthing points.

Material:
– Sheet steel

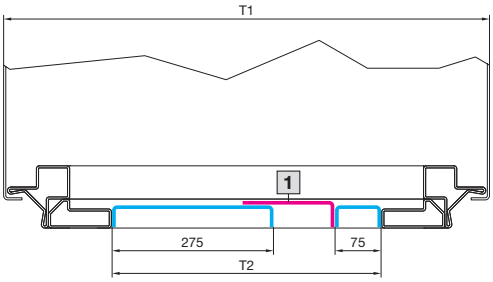
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– At least one sliding plate is required to fully seal a base opening
– For two-door enclosures, one pack is sufficient for one half of the enclosure

Example with enclosure depth 600 mm
T1 (600 mm) - 148 = T2 (452 mm)

1 Sliding plate



Accessories:
– Sliding plate, see page 896

For enclosure width 600 mm

Depth mm	Packs of	Model No.
75	1 pc(s).	**8001.210**
175	1 pc(s).	**8001.214**
237.5	1 pc(s).	**8001.218**
275	1 pc(s).	**8001.222**

For enclosure width 800 mm

Depth mm	Packs of	Model No.
75	1 pc(s).	**8001.211**
175	1 pc(s).	**8001.215**
237.5	1 pc(s).	**8001.219**
275	1 pc(s).	**8001.223**

For enclosure width 1000 mm

Depth mm	Packs of	Model No.
75	1 pc(s).	**8001.212**
175	1 pc(s).	**8001.216**
237.5	1 pc(s).	**8001.220**
275	1 pc(s).	**8001.224**

For enclosure width 1200 mm

Depth mm	Packs of	Model No.
75	1 pc(s).	**8001.213**
175	1 pc(s).	**8001.217**
237.5	1 pc(s).	**8001.221**
275	1 pc(s).	**8001.225**

Sliding plate

for VX, VX IT, VX SE
For variable compensation as well as a flexible opening in the base area. May be combined with gland plates.

Sliding plate depth:
– 65 – 115 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**8001.239**
800	1 pc(s).	**8001.241**
1000	1 pc(s).	**8001.242**
1200	1 pc(s).	**8001.243**

Gland plate set, multi-piece, solid

for VX IT

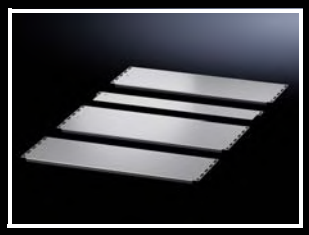
Multi-piece gland plate set consisting of solid base plate modules and a sliding plate for cable entry. The solid gland plate module, depth 237.5 mm, may optionally be exchanged for gland plate module variants for cable entry.

Benefit:
– The sequence of individual modules may be freely selected

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Gland plate set
– Sealing tape
– Assembly parts



For enclosure width mm	For enclosure depth mm	Gland plate module, solid				Sliding plate depth 115 mm	Packs of	Model No.
		Depth 75 mm	Depth 175 mm	Depth 237.5 mm	Depth 275 mm			
600	1000	–	–	2	1	1	1 pc(s).	**5301.338**
600	1200	–	–	4	–	1	1 pc(s).	**5301.341**
800	600	1	1	–	–	2	1 pc(s).	**5301.336**
800	800	1	–	2	–	1	1 pc(s).	**5301.337**
800	1000	–	–	2	1	1	1 pc(s).	**5301.344**
800	1200	–	–	4	–	1	1 pc(s).	**5301.347**

Gland plate module, vented

for VX IT

For closing the base

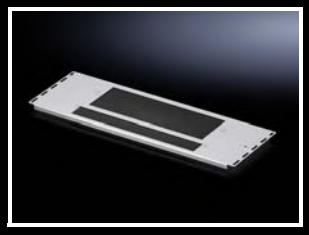
Benefit:
– Large perforated section to support passive climate control of the enclosure
– Filter mat slides in from above for easy replacement

Gland plate depth:
– 237.5 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Gland plate module, vented
– Filter mat
– Assembly parts



For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**5301.330**
800	1 pc(s).	**5301.331**

Assembly instruction:

– Several gland module plates must be combined to seal the base completely in the VX IT
– The gland plate module may be combined in exchange with other base modules with a depth of 237.5 mm

Gland plate module, one-piece, with brush strip

for VX IT

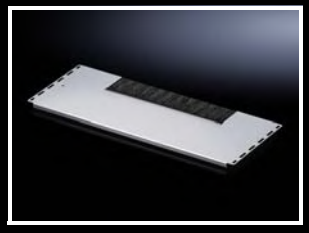
For targeted cable entry from below.

Gland plate depth:
– 237.5 mm

Material:
– Module plate: Sheet steel
– Brush strip: Plastic, UL 94 HB, halogen-free

Surface finish:
– Module plate: Zinc-plated

Supply includes:
– Assembly parts



For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**5301.332**
800	1 pc(s).	**5301.333**

Note:
– Gland plate modules with brush strip not suitable for applications with a protection category to IEC 60 529

Assembly instruction:

– Several gland module plates must be combined to seal the base completely in the VX IT
– The gland plate module may be combined in exchange with other base modules with a depth of 237.5 mm

Base

Gland plate module, multi-piece, with brush strip, super-airtight

for VX IT

For targeted cable entry from below. With correct cable entry, special brush strips with alternating offset brushes provide a more effective seal from the environment to support climate control. The two-piece design even allows retrospective fitting of the base module with the cables already installed.

Gland plate depth:
– 237.5 mm

Material:
– Module plate: Sheet steel
– Brush strip: Plastic, UL 94 HB, halogen-free

Surface finish:
– Module plate: Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	1 pc(s).	**5301.334**
800	1 pc(s).	**5301.335**

Note:
– Gland plate modules with brush strip not suitable for applications with a protection category to IEC 60 529

Assembly instruction:

– Several gland module plates must be combined to seal the base completely in the VX IT
– The gland plate module may be combined in exchange with other base modules with a depth of 237.5 mm.

Gland plate module for side cable entry

for VX IT

With adjustable opening and brush strips on both sides. The version which is open at the side even allows the base plate module to be retro-fitted with the cables already installed.

Gland plate depth:
– 237.5 mm

Material:
– Module plate: Sheet steel
– Brush strip: Plastic, UL 94 HB, halogen-free

Surface finish:
– Module plate: Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
800	1 pc(s).	**5301.348**

Note:
– Gland plate modules with brush strip not suitable for applications with a protection category to IEC 60 529

Assembly instruction:

– Several gland module plates must be combined to seal the base completely in the VX IT
– The gland plate module may be combined in exchange with other base modules with a depth of 237.5 mm.

Module plates

for TE
The base area of the TE may be varied as required using the module plates.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Compensating panel design

Width B1 mm	Depth T1 mm	For enclosure width mm	Model No.
450	50	600	**7526.750**
450	150	600	**7526.755**
650	50	800	**7526.790**
650	150	800	**7526.795**

Vented design

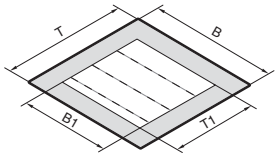
Width B1 mm	Depth T1 mm	For enclosure width mm	Model No.
450	200	600	**7526.829**
650	200	800	**7526.834**

Solid design

Width B1 mm	Depth T1 mm	For enclosure width mm	Model No.
450	200	600	**7526.760**
450	550	600	**7526.770**
450	750	600	**7526.780**
650	200	800	**7526.800**
650	550	800	**7526.785**
650	750	800	**7526.820**

Design with brush strip

Width B1 mm	Depth T1 mm	For enclosure width mm	Model No.
450	200	600	**7526.850**
650	200	800	**7526.860**



Please note the following when selecting suitable module plates:
B1 = Enclosure width (B) - 150 mm
T1 = Enclosure depth (T) - 50 mm

Base

Base mounting bracket

for VX, VX IT

To anchor the enclosure to the floor, particularly if it is top-heavy and inclined to tilt or cannot be incorporated into a suite of enclosures.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**5301.350**

Assembly instruction:

– The base area must be open at the mounting points
– Additional holes in the false base are required for mounting
– The assembly parts for connecting the enclosure to the substructure will vary according to its specific properties and are not included with the supply

Pressure relief stopper

Especially when enclosures are exposed to changing climatic conditions, pressure differences may cause condensation to form in sealed enclosures. The integral sealing membrane in the pressure relief stopper largely prevents such pressure differences and hence eliminates condensation; additionally, it also prevents the ingress of moisture from the outside.
Installed in vertical surfaces to protect against dirt.

Technical specifications:
– Air permeability up to 120 litres/hour with a pressure difference of 70 mbar
– Connection thread M12 x 1.5
– For fitting in wall thicknesses up to 4 mm

Packs of	Model No.
5 pc(s).	**2459.500**

Material:
– Polyamide

Colour:
– Similar to RAL 9005

Protection category IP to IEC 60 529:
– IP X8

Protection category IP to DIN 40 040-9:
– IP 69K

Supply includes:
– Lock nut

Condensate discharge

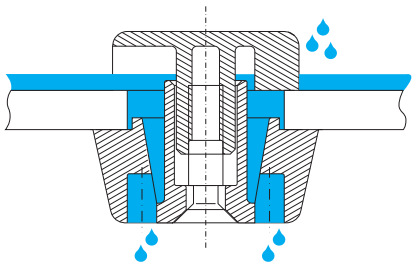
For reliable condensate discharge from the inside and protection against splashed water from the outside (labyrinth effect). A hole diameter of 16 mm is required (with AX sheet steel, the holes are already provided in the base).

Material:
– Polyamide

Colour:
– Similar to RAL 7035

Protection category:
– Protection from splashed water, when correctly installed at the bottom

Packs of	Model No.
6 pc(s).	**2459.000**



Side panel, screw-fastened, sheet steel

for VX, VX IT

- Time-saving assembly thanks to clip-in side panel holders
- Automatic potential equalisation and higher EMC protection, thanks to enclosure panel holders with earthing inserts located on the inside
- Easy positioning in the height and depth with the location aid
- Simple assembly
- Earthing bolts with large, paint-free contact surface for optimum contact

Material:
- Sheet steel, 1.5 mm

Surface finish:
- Dipcoat-primed, powder-coated on the outside

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55 (in conjunction with enclosures from the VX, VX IT series)

Protection category NEMA:
- NEMA 12 (in conjunction with enclosures from the VX, VX IT series)

Supply includes:
- Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
800	600	2 pc(s).	**8173.245**
1200	500	2 pc(s).	**8115.245**
1200	600	2 pc(s).	**8170.245**
1200	800	2 pc(s).	**8175.245**
1200	1000	2 pc(s).	**8176.245**
1400	500	2 pc(s).	**8145.245**
1600	500	2 pc(s).	**8165.245**
1600	600	2 pc(s).	**8166.245**
1600	800	2 pc(s).	**8168.245**
1800	400	2 pc(s).	**8184.245**
1800	500	2 pc(s).	**8185.245**
1800	600	2 pc(s).	**8186.245**
1800	800	2 pc(s).	**8188.245**
2000	400	2 pc(s).	**8104.245**
2000	500	2 pc(s).	**8105.245**
2000	600	2 pc(s).	**8106.245**
2000	800	2 pc(s).	**8108.245**
2000	1000	2 pc(s).	**8100.245**
2000	1200	2 pc(s).	**8102.245**
2200	600	2 pc(s).	**8126.245**
2200	800	2 pc(s).	**8128.245**
2200	1000	2 pc(s).	**8120.245**
2200	1200	2 pc(s).	**8122.245**

Accessories:

- Hinge for side panel, screw-fastened, sheet steel, see page 902

Side panel, screw-fastened, stainless steel

for VX

- Time-saving assembly thanks to clip-in side panel holders
- Automatic potential equalisation and higher EMC protection, thanks to enclosure panel holders with earthing inserts located on the inside
- Easy positioning in the height and depth with the location aid
- Simple assembly
- Earthing bolts with large, paint-free contact surface for optimum contact

Material:
- Stainless steel 1.4301 (AISI 304), 1.5 mm

Surface finish:
- Brushed, grain size 400

Protection category IP to IEC 60 529:
- IP 55 (in conjunction with enclosures from the VX series)

Protection category NEMA:
- NEMA 12 (in conjunction with enclosures from the VX series)

Supply includes:
- Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
1800	400	2 pc(s).	**8700.030**
1800	500	2 pc(s).	**8700.040**
2000	600	2 pc(s).	**8700.050**

Side panels

Hinge

for side panel, screw-fastened, sheet steel
The 180° opening angle allows unhindered access from the side.

Material:
– Die-cast zinc

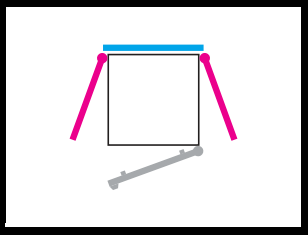
Colour:
– RAL 7035

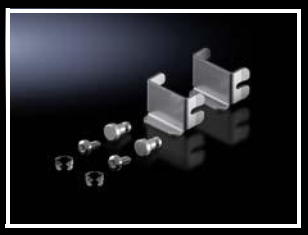
Protection category IP to IEC 60 529:
– IP 55 (in conjunction with enclosures from the VX, VX IT series)

Supply includes:
– Assembly parts

Packs of	Model No.
6 pc(s).	**8106.260**

Note:
– Hinge mounting (red) is only possible in the vicinity of the rear panel (blue)
– Only for use with a side panel depth of 800 mm or less





Internal latch

for side panel, screw-fastened, sheet steel
Additional security is achieved via the option of latching the side panel from the inside. The side panels on the frame section are screw-fastened from the inside with latching brackets.

Surface finish:
– Sheet steel, zinc-plated

Protection category IP to IEC 60 529:
– IP 55 (in conjunction with enclosures from the VX, VX IT series)

Supply includes:
– 2 mounting brackets
– Assembly parts

Packs of	Model No.
2 pc(s).	**5301.235**

Assembly instruction:
– Access via the front and rear doors must be guaranteed

Side panel, horizontally divided

for VX IT
For sealing IT enclosure systems, both stand-alone and baying arrangements.

Benefits:
– Simple handling
– Supports tool-free installation and removal of the side wall
– Locked using security lock 3524 E
– Integral internal latch

Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Top piece
– Bottom piece
– 6 mounting brackets
– 2 lock components
– Assembly parts

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	1000	1 pc(s).	**5301.250**
2000	1200	1 pc(s).	**5301.254**
2200	1000	1 pc(s).	**5301.257**
2200	1200	1 pc(s).	**5301.261**
2450	1000	1 pc(s).	**5301.264**
2450	1200	1 pc(s).	**5301.265**

Side panel, vertically divided

for VX IT

Benefits:
- Simple handling
- Easy to close with snap fasteners
- Optimum access to all installed components
- Opening is only possible via internal locking elements, which requires free access via the doors, but significantly increases access security
- Individual side parts may be completely dismantled at any time without the need for tools

Material:
- Sheet steel

Surface finish:
- Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 20

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	800	1 pc(s).	**5301.246**
2000	1000	1 pc(s).	**5301.236**
2000	1200	1 pc(s).	**5301.242**
2200	800	1 pc(s).	**5301.243**
2200	1000	1 pc(s).	**5301.244**
2200	1200	1 pc(s).	**5301.245**

Supply includes:
- 2 side parts
- Punched rail
- 6 hinges
- 4 quick-release fasteners
- Assembly parts

Assembly instruction:
- Access via the front and rear doors must be guaranteed

Side panel

for TE 8000

Simple assembly with insertion aid at the bottom and lock at the top. Earthing bolt with contact lug.

Material:
- Sheet steel

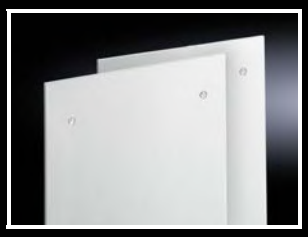
Surface finish:
- Powder-coated

Colour:
- RAL 7035

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	800	2 pc(s).	**7888.652**
2000	1000	2 pc(s).	**7888.653**

Protection category IP to IEC 60 529:
- IP 20

Supply includes:
- 4 cam locks including security lock 3524 E



Corrosion protection primer

The one-component primer is suitable as corrosion protection on paint-free spots which occur due to cut-outs etc. Used to renew corrosion protection of paint-free spots in accordance with the standard IEC 61439 for low-voltage and switchgear assemblies.

Benefits:
- Exceptional bonding
- Passive protection from corrosion
- Very high filling force

Colour:
- Dark grey

	Contents ml	Packs of	Model No.
Paint pen	12	1 pc(s).	**2436.800**

Paint

For touching up and repairing powder-coated and wet-painted surfaces, air-drying.

	Colour	Model No.
Touch-up pen 12 ml	RAL 7035	**2436.735**
Tin 1000 ml	RAL 7035	**2438.735**
Spray can 150 ml	RAL 7035	**2440.735**
	RAL 9005	**2440.905**

Divider panels/partitions

Partition, one-piece, for slide-in fixing

for VX IT

For rack mounting, suspended between two bayed enclosures. With one Ø 40 mm hole in the left-hand and right-hand corner areas for inserting cables, conduits etc. These drilled holes may be sealed with the enclosed cover caps.

Benefits:
– Simply slides into position

Material:
– Sheet steel, zinc-plated

Protection category:
– IP 20 (with fitted cover caps)

Supply includes:
– Partition
– 2 cover caps

Note:
– Use baying connector, external, 3 mm
– Not suitable for use in conjunction with a baying seal
– Any baying seal that may be present must be removed prior to installation

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	1000	1 pc(s).	**5301.270**
2000	1200	1 pc(s).	**5301.281**
2200	1000	1 pc(s).	**5301.287**
2200	1200	1 pc(s).	**5301.300**
2450	1000	1 pc(s).	**5301.315**
2450	1200	1 pc(s).	**5301.317**

Assembly instruction:

– A baying gap of 3 mm is required to insert the partition

Accessories:

– Baying connector, external, 3 mm, see page 914

Partition, vertically divided, for screw fastening

for VX IT

For retrospective installation/dismantling of bayed enclosures. The integrated sealing profile supports enclosure sealing for climate control or for applications with extinguisher gas. It may be fitted from the outside prior to baying the enclosure, or from the inside after baying the enclosure. As the partition is located inside the frame structure, it may be retrofitted at any time. There are no specific required baying distances between the enclosures.

Material:
– Sheet steel, zinc-plated

Supply includes:
– 2 partitioning plates
– 4 cover caps
– Punched rail
– Seal
– Assembly parts

For enclosure height mm	For enclosure depth mm	Packs of	Model No.
2000	1000	1 pc(s).	**5301.274**
2000	1200	1 pc(s).	**5301.284**
2200	1000	1 pc(s).	**5301.291**
2200	1200	1 pc(s).	**5301.303**
2450	1000	1 pc(s).	**5301.319**
2450	1200	1 pc(s).	**5301.321**

Assembly instruction:

– Assembly/removal only supported for enclosures without interior installation

Accessories:

– Baying connector, external, see page 912
– Baying connector, external, 3 mm, see page 914

Divider panel

for VX

For shielding individual enclosure cells. Thanks to the symmetry of the frame system, the divider panel can also be used at the rear. All-round, double fold for stability and to hold the seal.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Protection category IP to IEC 60 529:
– IP 54 (in conjunction with enclosures from the VX series)

Supply includes:
– Assembly parts

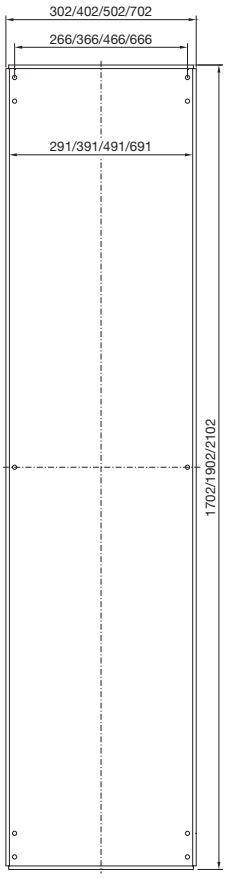
Also required:

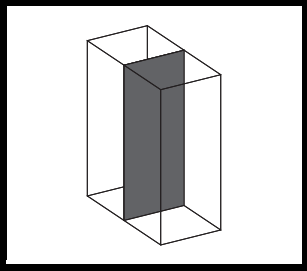
– When baying in conjunction with a divider panel: Baying bracket, internal 8617.500, see page 912 or baying connector, external 8617.502/ 8617.503, see page 912

Accessories:

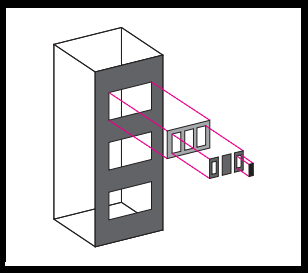
– Cover with door, see page 908

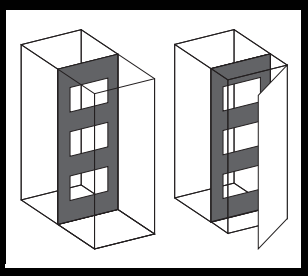
For enclosures		Model No.
Height mm	Depth mm	
1800	400	**8609.200**
1800	500	**8609.201**
1800	600	**8609.202**
2000	400	**8609.203**
2000	500	**8609.204**
2000	600	**8609.205**
2000	800	**8609.206**
2200	600	**8609.207**





Divider panels/partitions





Divider panel

for module plates
for VX

With cut-outs for the installation of module plates for connectors or for cable entry, and also for the entry of busbar systems and other installed equipment. All-round, double fold for stability and to hold the seal. The symmetry of the enclosure frame means that divider panels may also be fitted at the rear, dimensions permitting.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

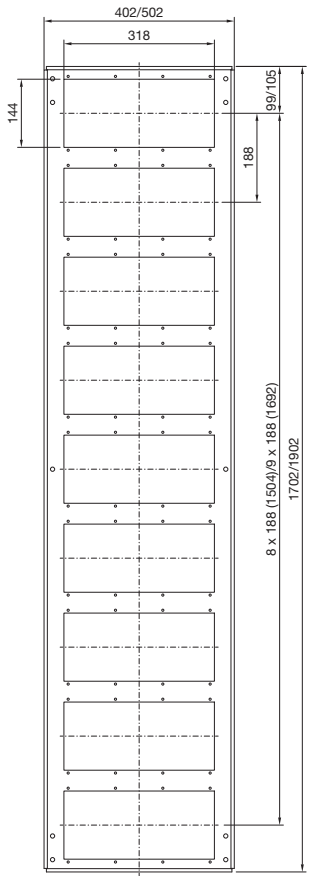
Supply includes:
– Seal and assembly parts

Also required:

– When baying in conjunction with a divider panel: Baying bracket, internal 8617.500, see page 912
or
baying connector, external 8617.502/ 8617.503, see page 912

Accessories:

– Module plates, see page 907
– Cover with door, see page 908
– Baying bracket, internal, see page 912



For enclosures		Number of cut-outs	**Model No.**
Height mm	Depth mm		
1800	500	9	**8609.210**
1800	600	9	**8609.211**
2000	500	10	**8609.212**
2000	600	10	**8609.213**

Module plates

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Seal

Version	Cut-outs	Packs of	Model No.
Solid	–	1 pc(s).	**8609.160**
For 16-pole connectors	4	1 pc(s).	**8609.150**
For 24-pole connectors	4	1 pc(s).	**8609.140**
For cable entry	1	1 pc(s).	**8609.170**
With cable sleeve	1	1 pc(s).	**8609.390**

Solid
For sealing unused cut-outs. Easily machined for individual cut-outs.

For 16/24-pole connectors
With cut-outs to accommodate connectors.

Accessories:
– Adaptor, cover plate, see page 908
– Connector gland for connector cut-outs, see page 1046
– Sealing frame, modular, see page 1048

For cable entry
For the entry of pre-assembled cables. Sealed, secure routing is achieved via adjustable angle brackets with inserted foam cable clamp strip. Fixed bracket, punched, for cable clamping.

Accessories:
– Cable tie for fast assembly 2597.000, see page 1061

With cable sleeve
For cable diameters from 10 to 65 mm.
The flexible grommet adapts to the cable's bending radius

Divider panels/partitions

Adaptor

for connector cut-outs
For using connectors with varying numbers of poles.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Seal and assembly parts

For reduction	Packs of	Model No.
From 24 to 16 poles	5 pc(s).	**2479.000**
From 24 to 10 poles	5 pc(s).	**2480.000**
From 24 to 6 poles	5 pc(s).	**2481.000**
From 16 to 10 poles	5 pc(s).	**2401.000**
From 16 to 6 poles	5 pc(s).	**2402.000**

Cover plate

for connector cut-outs
For unused cut-outs.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Seal and assembly parts

For	Packs of	Model No.
24-pole cut-outs	20 pc(s).	**2477.000**
16-pole cut-outs	20 pc(s).	**2478.000**

Cover with door

for VX
– To protect and finish off connectors or other installed equipment.
– Optional cable entry from above or below

Material:
– Cover: Sheet steel, 1.5 mm
– Door: Sheet steel, 2.0 mm

Surface finish:
– Dipcoat-primed, powder-coated on the outside

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55 (in conjunction with enclosures from the VX series)

Protection category to NEMA:
– NEMA 12 (in conjunction with enclosures from the VX series)

Supply includes:
– Cover
– Door with locking rod and double-bit lock insert
– 2 trim panels for top and bottom

For enclosures		Model No.
Height mm	Depth mm	
2000	500	**8609.220**
2000	600	**8609.230**

Accessories:
– Lock inserts, type G, see page 941
– Comfort handle VX, see page 937
– 180° hinge, see page 951

Isolator door cover

for VX

Including main door latch for safety locking of enclosures and bayed enclosure suites in accordance with UL regulations. Tested in conjunction with actuator lever for master switch from the following companies:
- Allen Bradley
- Square D
- General Electric
- Eaton
- Siemens

A detailed overview of types can be found on the Internet, together with the product description.

Benefits:
- Meets the requirements of UL 508 A
- In conjunction with the operating mechanism, adjacent door lock and interconnecting rods, these requirements are also met for bayed combinations
- Optional mounting on the left or right of the enclosure. With this cover, all single-door bayed enclosures may be configured as isolator door enclosures. The complete installation surface of the enclosure is retained.
- In conjunction with the integrated mounting plate infill, the mounting surface of the main enclosure can be enlarged by up to 14%.
- Two cut-outs for actuator levers on the front, for internal mounting at varying heights

Protection category IP to IEC 60 529:
- IP 55 (in conjunction with enclosures from the VX series)

Protection category to NEMA:
- NEMA 12 (in conjunction with enclosures from the VX series)

Supply includes:
- Main door lock, cover plate and assembly parts

Note:
- Cover may only be mounted on a single-door enclosure with tubular door frame

Also required:

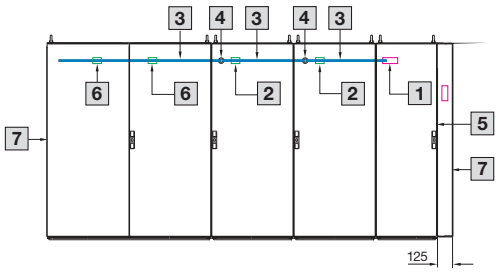
For bayed suites:
- Operating mechanism 4912.000, for enclosure with isolator door cover and additionally in every fourth adjacent enclosure, see page 910
- Adjacent door latch 4911.000, 4911.100, for every adjacent enclosure, see page 910
- Interconnecting rods, for every adjacent enclosure in the appropriate enclosure width, see page 910
- Side panel, screw-fastened, see page 901

Accessories:
- Mounting plate infill, see page 971

Isolator door lock

1 Operating mechanism
2 Adjacent door latch (single-door)
3 Interconnecting rod
4 Connection component
5 Main door latch
6 Adjacent door latch (two-door)
7 Side panel, screw-fastened

Installation to the right of the enclosure



Width mm	Height mm	Depth mm	Material thickness mm	Surface finish	Colour	Model No.	
						Sheet steel	Stainless steel 1.4301 (AISI 304)
103	1800	400	1.5	Powder-coated	RAL 7035	**8951.020**	**–**
103	1800	400	1.5	Brushed, grain size 400	–	**–**	**8952.020**
103	1800	500	1.5	Powder-coated	RAL 7035	**8951.030**	**–**
103	1800	500	1.5	Brushed, grain size 400	–	**–**	**8952.030**
103	2000	500	1.5	Powder-coated	RAL 7035	**8951.000**	**–**
103	2000	500	1.5	Brushed, grain size 400	–	**–**	**8952.000**
103	2000	600	1.5	Powder-coated	RAL 7035	**8951.010**	**–**
103	2000	600	1.5	Brushed, grain size 400	–	**–**	**8952.010**

Isolator door locking

Door latch for bayed enclosure suites

In conjunction with the isolator door cover, the requirements of UL 508 A are also met for bayed enclosure suites. Depending on the baying combination, different components will be required; refer to the assembly sketch on page 909.

Note:

– The door latch for bayed enclosure suites can also be used without the isolator door cover and in combination with commercially available master switches. In this way, adjacent doors cannot be opened until the main door has been opened.

1 **Operating mechanism**
Fitted in the enclosure with main switch and additionally in every fourth adjacent enclosure

	Packs of	Model No.
Operating mechanism	1 pc(s).	**4912.000**

2 **Adjacent door latch**
Installation in adjacent enclosure

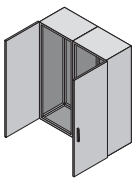
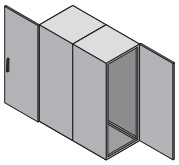
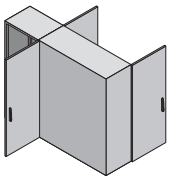
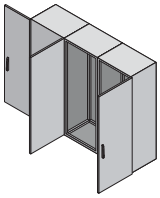
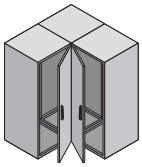
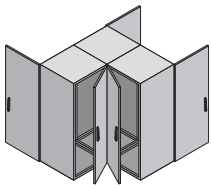
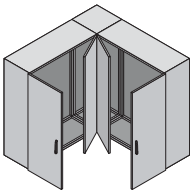
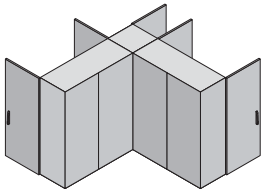
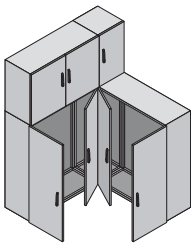
Adjacent door latch for	Packs of	Model No.
Single-door enclosures	1 pc(s).	**4911.000**
Two-door enclosures	1 pc(s).	**4911.100**

3 **Interconnecting rods**
To extend locking from the main enclosure to the adjacent enclosures of a bayed suite.
One interconnecting rod corresponding to the width of the enclosure is required for each adjacent enclosure.

For enclosure width mm	Packs of	Model No.
600	10 pc(s).	**4916.000**
800	10 pc(s).	**4918.000**
1200	10 pc(s).	**4920.000**

Bayable on all sides

Whether around corners, forwards, backwards, to the left or right or even upwards if required, the baying options are unlimited.

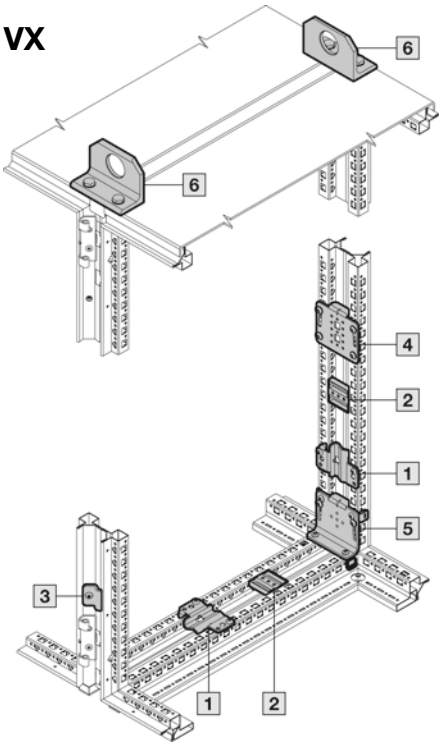










Overview of bayed VX/VX IT

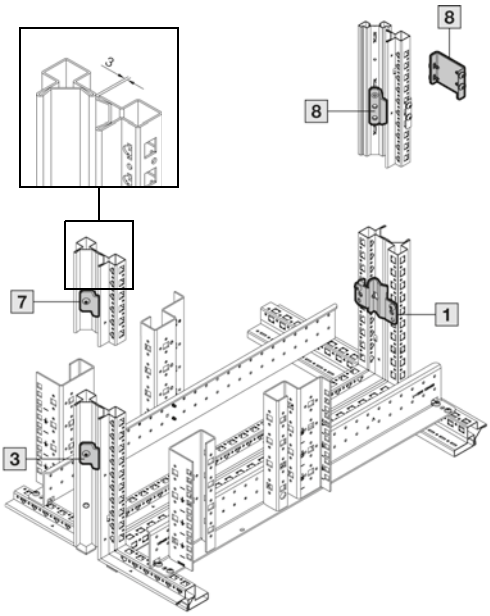
1 Baying bracket, internal, for VX/VX IT
2 Baying block, internal, for VX
3 Baying connectors, external, for VX/VX IT
4 Quick-fit baying clamp for VX
5 Angular baying bracket for VX
6 Combination angle for VX
7 Baying connector, external, 3 mm for VX IT
8 Baying connector for VX IT/TS IT

Notes on the transportation of bayed VX enclosures, see page 915.

VX



VX IT



Baying

Baying bracket, internal

for VX, VX IT

- Fast, secure installation either from the front or from the side
- For all-round installation on the baying point
- May be flexibly positioned to avoid collisions with installed equipment
- Also suitable for baying base/plinth components

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Baying bracket, internal
- Baying seal
- Assembly parts

Packs of	Model No.
6 pc(s).	**8617.500**

Note:
- 1 pack is sufficient for one baying joint
- Transportation of bayed enclosures, see page 915

Possible alternative:

- Baying block, internal, see page 912
- Baying connector, external 8617.502, see page 912

Baying block, internal

for VX, VX IT

- Side mounting creates a flush surface to the profile, suitable for top mounting, thus avoiding collisions with installed equipment
- For all-round installation on the baying point

Material:
- Die-cast zinc

Supply includes:
- Baying block, internal
- Baying seal
- Assembly parts

Packs of	Model No.
6 pc(s).	**8617.501**

Note:
- 1 pack is sufficient for one baying joint

Possible alternative:

- Baying bracket, internal, see page 912
- Baying connector, external 8617.502, see page 912

Baying connector, external

for VX, VX IT

For mounting on the vertical enclosure sections from the outside.

Supply includes:
- Baying connector, external
- Baying seal
- Assembly parts

Material	Packs of	Model No.
Sheet steel, zinc-plated	6 pc(s).	**8617.502**
Stainless steel 1.4301 (AISI 304)	6 pc(s).	**8617.503**

Note:
- 1 pack is sufficient for one baying joint

Possible alternative:

- Baying bracket, internal, see page 912
- Baying block, internal, see page 912

Quick-fit baying clamps

for VX
- For all-round installation on the baying point
- May be flexibly positioned to avoid collisions with installed equipment
- Simply tighten the screws, tap in the quick-fit baying clamp, pull the enclosures together and secure
- Additional mounting level between bayed enclosures, e.g. for mounting cable ducts

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

Packs of	Model No.
6 pc(s).	**8617.506**

Note:
- 1 pack is sufficient for one baying joint

Accessories:
- Baying seal 8617.507, see page 914

Angular baying bracket

for VX
For stable connection in the corners of bayed enclosures. Perfectly suited for aligning enclosures with one another on uneven floors

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

Packs of	Model No.
4 pc(s).	**8617.508**

Note:
- 1 pack is sufficient for one baying joint
- To achieve the required protection category and transportation stability, further baying connectors should be used halfway up the enclosure

Baying connector, external, 9 mm

for VX IT/VX IT with side panels
For retrospective baying of enclosures with side panels.

Material:
- Sheet steel

Colour:
- RAL 7035

Supply includes:
- Assembly parts

Packs of	Model No.
4 pc(s).	**7824.540**

Baying

Baying connector, external, 3 mm

for VX IT

Applications:
- For retrospectively exchanging racks or LCP devices
- For retroactive installation/removal of partitions, one-piece, slide-in

Benefits:
- Supports retroactive exchange of racks or LCP devices
- Guarantees the required baying distance of 3 mm for carrying out retrospective modifications

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- 4 baying connectors, external, 3 mm
- Baying seal, 8 m
- Assembly parts

Packs of	Model No.
1 pc(s).	**5301.310**

Note:
- Within a bayed enclosure suite, the external dimension is increased by 2 mm per baying point
- The maximum achievable IP protection category to IEC 60 529 is IP 20.

Baying clamp

for VX IT/TS IT

For baying enclosures in the VX IT series to TS IT.

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- 4 baying connectors, external
- 2 baying connectors, internal
- Baying seal, 8 m
- Assembly parts

Packs of	Model No.
1 pc(s).	**5301.312**

Note:
- The maximum achievable IP protection category to IEC 60 529 is IP 54

Baying seal

for VX

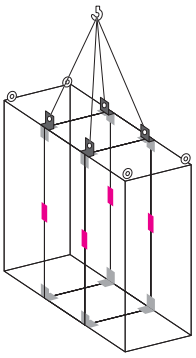
May be used individually for baying on all existing enclosure sizes. The seal sits securely around the section edge, and is easily removed at any time without leaving any residues. It is also reusable.

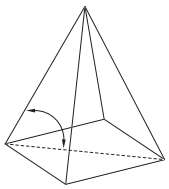
Packs of	Model No.
1 pc(s).	**8617.507**

Material:
- EPDM

Supply includes:
- 8 m

Notes on the transportation of bayed VX enclosures





When transporting bayed enclosures, for example, the baying bracket, internal (8617.500), the baying block, internal (8617.501) or the baying connector, external (8617.502 and 8617.503) may be used in conjunction with the combination angle (4540.000). The load capacity with a cable pull angle of 60° is as follows:
for the left-hand enclosure 7000 N,
for the central enclosure 14000 N,
for the right-hand enclosure 7000 N.

The cable pull angle between the roof plate and the cable has a significant influence on the total permissible load. The cable pull angle must not be less than 45°, and ideally not less than 60°.

Combination angle

for VX
For optimum distribution of tensile forces during transportation of bayed enclosures by crane.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**4540.000**

Accessories:

– Baying cover, top, see page 915

Baying cover, top

for VX, VX IT
A cover with two end caps may additionally be clipped over the seal between the two enclosures. This prevents dirt and liquid from accumulating on the baying seal.

Supply includes:
– Assembly parts

Note:
– May also be fitted in the width with enclosure suites bayed back-to-back
– May be cut to required length, if necessary.
– May also be used in conjunction with dust guard trim, see page 959

For enclosure depth mm	Packs of	Plastic RAL 7035	Stainless steel 1.4301 (AISI 304)	Model No.
400	1 pc(s).	■	–	**8800.845**
500	1 pc(s).	■	–	**8800.855**
600	1 pc(s).	■	–	**8800.865**
800	1 pc(s).	■	–	**8800.885**
400	1 pc(s).	–	■	**8700.140**
500	1 pc(s).	–	■	**8700.150**
600	1 pc(s).	–	■	**8700.160**
1000 – 1200	1 pc(s).	■	–	**8800.825**

Baying

Baying cover, vertical

for VX

To balance out the gap between the side panels when baying back-to-back. For enclosure height 2200 mm, or may be cut to length individually for lower heights.

Material:
– Cover section: Plastic

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**8800.875**

Also required:

– Baying connector, external, 8617.502, see page 912

Baying kit, VX25 to TS 8

For extending existing TS 8 bayed enclosure suites with VX25 enclosures.

Material:
– Baying connector: Sheet steel

Supply includes:
– 8 baying connectors
– 1 seal
– Assembly parts

Packs of	Model No.
1 pc(s).	**8617.505**

Baying kit

for TE/TE

For connecting individual enclosures into bayed suites at the sides. The enclosures are connected between the base and roof frame.

Benefits:
– Baying of TE 8000 to TE 7000 enclosures is supported

Width mm	Packs of	Model No.
55	4 pc(s).	**7888.640**

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Baying kit

for AX, KX

For baying AX/KX enclosures.
The additional cut-outs are to be provided by the customer.

Special screws and nuts
– For fast, simple assembly without thread-tapping
– Compression of the seal is limited to a predefined level, to ensure a long-lasting, permanent seal between enclosures

Seal, self-adhesive
– Comprised of bayable sealing elements and corner pieces, for individual adaptation to various enclosure sizes

One pack is sufficient for a baying joint up to H x D = 800 x 350 mm.

Packs of	Model No.
1 pc(s).	**1199.100**

Supply includes:
– Special screws and nuts
– Sealing elements, self-adhesive

Glazed door

for VX
Instead of a sheet steel door or rear panel.

Material:
– Frame: Extruded aluminium section
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

Colour:
– Frame and corner pieces: RAL 7035
– Viewing window (printed mask on the inside): RAL 9005

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Glazed door
– Locking rod with double-bit lock insert and lock plate
– 180° hinges, 4 pc(s).

For enclosures		Model No.
Width mm	Height mm	
600	1800	**8618.000**
800	1800	**8618.010**
600	2000	**8618.020**
800	2000	**8618.030**
600	2200	**8618.040**
800	2200	**8618.050**

Also required:
– When mounting instead of the rear panel or double door: Lock components for frame 8618.110, see page 917

Accessories:
– Comfort handle VX, see page 937
– Lock inserts, type G, see page 941

Lock components

For retrofitting a glazed door or sheet steel door in place of a rear panel.

Material:
– Die-cast zinc

Supply includes:
– Assembly parts

Packs of	Model No.
4 pc(s).	**8618.110**

Lockable and adjacent door

for VX
For example, if two 400 mm doors are used instead of one 800 mm wide door in order to comply with escape routes. May also be fitted instead of an 800 mm wide rear panel.

Material:
– Sheet steel

Surface finish:
– Dipcoat-primed, powder-coated on the outside

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– 2 doors, including tubular door frame, hinges and lock components

For enclosures		Model No.
Width mm	Height mm	
800	2000	**8618.120**

Accessories:
– Comfort handle VX, see page 937
– Lock inserts, type G, see page 941

Door variants

Glazed door

for VX SE
Instead of a sheet steel door.

Material:
– Frame: Extruded aluminium section
– Corner pieces: Die-cast zinc
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

Colour:
– Frame and corner pieces: RAL 7035
– Viewing window (printed mask on the inside): RAL 9005

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Glazed door
– Locking rod with double-bit lock insert and lock plate
– 180° hinges, 4 pc(s).

For enclosures		Model No.
Width mm	Height mm	
600	1800	**8610.685**
800	1800	**8610.885**
600	2000	**8610.605**
800	2000	**8610.805**

Accessories:
– Comfort handle, see page 938
– Lock inserts, version F, see page 941

Handle adaptor

The handle adaptor compensates for the design chamfer in the door profile to enable installation of the comfort handle.

Material:
– Plastic

Supply includes:
– 1 adaptor plate
– 1 bolt to extend the screw-on dome
– 2 assembly screws

For glazed door VX SE

Colour	Model No.
RAL 7035	**8611.080**

For designer door IW and PC, bottom door

Colour	Model No.
RAL 7035	**8611.300**

Glazed door VX IT

for Automatic Door Opening (ADO)
With integral vent valves for automated opening function in the event of an alarm or power failure. The glazed door for the Automatic Door Opening System replaces the standard VX IT door.

Benefits:
- Supports remote control via the CMC III system
- Tinted single-pane safety glass ensures a high standard of safety
- Combining the vent flaps with a tubular door frame creates exceptional stability
- The vent flaps only protrude into the escape route by 200 mm
- No adjustment to the lock systems system required
- Manual opening of the door without any effect on the vent flaps
- Automatic opening of the vent valves in the event of a power failure

Functional principle:
- Activation via CMC III door control module (DCM)
- Automatic, mechanical opening of the integral vertical ventilation flaps in an emergency if the cooling system fails or an extinguishing system is activated
- Depending on the room volume and temperature, the air inside the room is used for emergency cooling, or the extinguisher gas may flow directly into the IT enclosures

Technical specifications:
- Rated voltage: 24 V DC
- Rated current: 780 mA
- External projection of the vent flap: 200 mm (when opened)
- Internal projection of the mechanism: 52.5 mm
- Connection cable from door catch: 2.5 m
- Door hinged on the right, may be swapped to the left
- Spring damper for flap opening
- Magnets for fixing the flaps
- Valves are open at zero current

Protection category IP to IEC 60 529:
- IP 20 for solid vent flaps

Supply includes:
- Glazed door with comfort handle VX for profile half-cylinders
- Connection cable

Note:
- Other colours (RAL 9005) and sizes (H = 2200 mm) available on request

Also required:
- Door control module, see page 817
- CMC III power pack, see page 818

Accessories:
- CMC III Processing Unit/Compact with connection, power supply and mounting accessories, from page 804
- Lock inserts, see page 942

Design	Material	Colour	Dimensions		Packs of	Model No.
			Width mm	Height mm		
One-part, with vent flaps	Frame: Extruded aluminium section Viewing window: Single-pane safety glass, tinted	–	600	2000	1 pc(s).	**7030.262**
			800	2000	1 pc(s).	**7030.263**
One-part, with vent flaps	Frame: Sheet steel Viewing window: Single-pane safety glass, tinted	RAL 7035	600	2000	1 pc(s).	**7030.272**
			800	2000	1 pc(s).	**7030.273**
Two-part, vertically divided, with vent flaps	Frame: Sheet steel Viewing window: Single-pane safety glass, tinted	RAL 7035	600	2000	1 pc(s).	**7030.282**
			800	2000	1 pc(s).	**7030.283**

Door variants

Glazed aluminium door, one-piece

for VX IT
To replace existing doors.

Material/surface finish:
– Frame: Extruded aluminium section
– Vertical extrusion: Aluminium, anodised
– Horizontal extrusion: Aluminium, spray finished
– Viewing window: Single-pane safety glass, 3 mm

Colour:
– Comfort handle VX, hinges, horizontal extrusion: RAL 9005
– Vertical profile: silver coloured

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Door with comfort handle VX for profile half-cylinders with security lock 3524 E
– 3 x 180° hinges, fitted
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 240°
– Door opening angle when baying: max. 105°

For enclosures		Packs of	Model No.
Width mm	Height mm		
800	2000	1 pc(s).	**5301.423**

Assembly instruction:

– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Glazed sheet steel door, vertically divided

for VX IT
To replace existing doors. With underlaid viewing panel and 4-point locking rod. The divided design allows room-optimised siting of the enclosures coupled with the best possible access, thanks to a reduced distance between the individual bayed enclosure suites.

Material:
– Frame: Sheet steel
– Viewing window: Single-pane safety glass, 3 mm

Surface finish:
– Powder-coated

Colour:
– Frame: RAL 7035
– Comfort handle VX, hinges: RAL 9005

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Door, vertically divided, with comfort handle VX for profile half-cylinders with security lock 3524 E, right
– 4 x 180° hinges, fitted on each half of the door
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 240°
– Door opening angle when baying: max. 160°

For enclosures		Packs of	Model No.
Width mm	Height mm		
800	2000	1 pc(s).	**5301.437**
800	2200	1 pc(s).	**5301.438**

Assembly instruction:

– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Sheet steel door, one-piece, solid

for VX IT
To replace existing doors.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– Door: RAL 7035
– Comfort handle VX: RAL 9005

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Door with comfort handle VX for profile half-cylinders with security lock 3524 E
– 4 x 130° hinges, inside
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 165°
– Door opening angle when baying: max. 110°

For enclosures		Packs of	Model No.
Width mm	Height mm		
800	2000	1 pc(s).	**5301.540**
800	2200	1 pc(s).	**5301.542**

Assembly instruction:

– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Sheet steel door, vertically divided, solid

for VX IT
To replace existing doors. Thanks to the minimal rotation radius of the individual doors, the distance between individual bayed enclosure suites may be reduced.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– Door: RAL 7035
– Comfort handle VX, hinges: RAL 9005

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Door, vertically divided, with comfort handle VX for profile half-cylinders with security lock 3524 E, right
– 3 x 180° hinges, fitted on each half of the door
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 240°
– Door opening angle when baying: max. 160°

For enclosures		Packs of	Model No.
Width mm	Height mm		
600	2000	1 pc(s).	**5301.602**
800	2000	1 pc(s).	**5301.612**

Assembly instruction:

– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Door variants

Aluminium/sheet steel door, vented

for VX IT
To replace existing doors. The vented surface area is approx. 85% perforated.

Material/surface finish:
– Frame: Extruded aluminium section
– Vent grille: Sheet steel
– Vertical extrusion: Aluminium, anodised
– Horizontal extrusion: Aluminium, spray finished

Colour:
– Comfort handle VX, hinges, horizontal extrusion, vent grille: RAL 9005
– Vertical profile: silver coloured

Supply includes:
– Door with comfort handle VX for profile half-cylinders with security lock 3524 E
– 3 x 180° hinges, fitted
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 240°
– Door opening angle when baying: max. 105°

For enclosures		Packs of	Model No.
Width mm	Height mm		
600	2200	1 pc(s).	**5301.450**
800	2000	1 pc(s).	**5301.446**
800	2200	1 pc(s).	**5301.453**

Assembly instruction:

– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Sheet steel door, one-piece, vented

for VX IT
To replace existing doors. The vented surface area is approx. 85% perforated.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– Door: RAL 7035
– Comfort handle VX: RAL 9005

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Door with comfort handle VX for profile half-cylinders with security lock 3524 E
– 3 x 130° hinges, fitted on the inside
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 165°
– Door opening angle when baying: max. 110°

For enclosures		Packs of	Model No.
Width mm	Height mm		
600	2000	1 pc(s).	**5301.561**
800	2000	1 pc(s).	**5301.571**

Assembly instruction:

– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Sheet steel door, vertically divided, vented

for VX IT

To replace existing doors. The vented surface area is approx. 85% perforated.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– Door: RAL 7035
– Comfort handle VX, hinges: RAL 9005

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Door, vertically divided, with comfort handle VX for profile half-cylinders with security lock 3524 E, right
– 3 x 180° hinges, fitted on each half of the door
– Assembly parts

Note:
– Door opening angle for stand-alone siting: max. 240°
– Door opening angle when baying: max. 160°

For enclosures		Packs of	Model No.
Width mm	Height mm		
800	2000	1 pc(s).	**5301.652**

Assembly instruction:

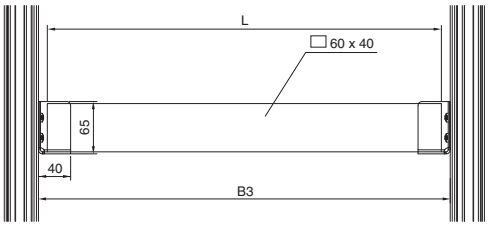
– For a door opening angle of 180° when baying, a 180° baying hinge is required, see page 951

Door variants

Protective bar

As an alternative to a door, e.g. in sealed switch rooms. Prevents people from falling into the open enclosure frame. Easily removable for maintenance purposes. For 1200 mm enclosure width; may be shortened or divided for other sizes.

Material:
– Wood, spray-finished, RAL 3000



For enclosure width mm	Length mm	Packs of	**Model No.**
1200	1090	1 pc(s).	**8801.010**

Enclosure width mm	Clearance between the enclosure frame (B3) mm	Length of protective bar (L) mm
400	311	290[1)]
600	511	490[1)]
800	711	690[1)]
1000	911	890[1)]
1200	1111	1090

[1)] The protective bar 8801.010 (1090 mm) will need to be shortened

Also required:
– Holder 8801.000, see page 924

Holder

for protective bar
For mounting on the vertical section. The protective bar is simply inserted.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

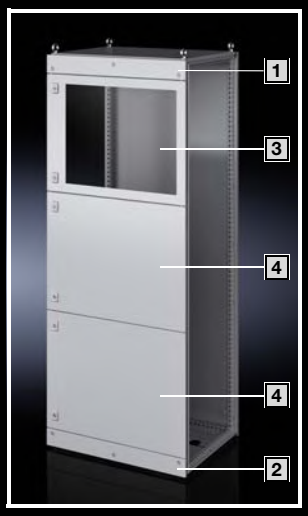
Packs of	**Model No.**
2 pc(s).	**8801.000**

Variable modular climate control concept

Instead of an enclosure door in a 600 mm/800 mm/1200 mm wide and 1800 mm/2000 mm high VX enclosure, section doors with integral cooling module may be retrofitted without major assembly work.

Possible alternative:
– Modular climate control concept, see page 506/507

Installation accessories for modular front design



Modular front design

Suitable for 400 to 1200 mm wide enclosures instead of a door or rear panel.
The partial doors with and without viewing panels for the baying enclosure system VX25, see page 132/133, may be combined with one another as required. A trim panel is required at the top and bottom in each case.
The requirements for your individual front design and the considerations which must be taken into account are illustrated on the sample configuration opposite.

1 Front trim panel, top
2 Front trim panel, bottom
3 Partial door with viewing window
4 Partial door

Note:
Installation accessories for modular front design, see page 926 – 927

Installation accessories for modular front design

Partial door

for VX

The door may be optionally hinged on the right or left. The partial door is attached to the enclosure with no drilling required. Standard double-bit lock insert may be exchanged for lock inserts, type A.

Material:
– Partial door: Sheet steel, 2 mm
– Viewing window: 3 mm single-pane safety glass

Surface finish:
– Textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Cross member, hinges and lock components
– Assembly parts

Note:
– Opening angle of partial doors max. 130°

Also required:

– Front trim panel, top, see page 927 or top-hinged trim panel, see page 928
– Front trim panel, bottom, see page 927

Accessories:

– Mini-comfort handle AX for partial door from a height of 200 mm, see page 940
– Lock inserts, type A, see page 941
– Perforated mounting strip, see page 927

For enclosure width 400 mm

Height mm	With viewing window	Number of locks	Packs of	Model No.
200	–	1	1 pc(s).	**9682.142**
300	–	1	1 pc(s).	**9682.143**
400	–	2	1 pc(s).	**9682.144**
600	–	2	1 pc(s).	**9682.146**
800	–	2	1 pc(s).	**9682.148**
1000	–	3	1 pc(s).	**9682.140**
1200	–	3	1 pc(s).	**9682.152**
1400	–	3	1 pc(s).	**9682.154**
1600	–	4	1 pc(s).	**9682.156**
1800	–	4	1 pc(s).	**9682.158**
2000	–	4	1 pc(s).	**9682.150**

For enclosure width 600 mm

Height mm	With viewing window	Number of locks	Packs of	Model No.
150	–	1	1 pc(s).	**9682.161**
200	–	1	1 pc(s).	**9682.162**
300	–	1	1 pc(s).	**9682.163**
400	–	2	1 pc(s).	**9682.164**
600	–	2	1 pc(s).	**9682.166**
600	■	2	1 pc(s).	**9682.167**
800	–	2	1 pc(s).	**9682.168**
800	■	2	1 pc(s).	**9682.169**
1000	–	3	1 pc(s).	**9682.160**
1200	–	3	1 pc(s).	**9682.172**
1400	–	3	1 pc(s).	**9682.174**
1600	–	4	1 pc(s).	**9682.176**
1800	–	4	1 pc(s).	**9682.178**
2000	–	4	1 pc(s).	**9682.170**

For enclosure width 800 mm

Height mm	With viewing window	Number of locks	Packs of	Model No.
150	–	1	1 pc(s).	**9682.181**
200	–	1	1 pc(s).	**9682.182**
300	–	1	1 pc(s).	**9682.183**
400	–	2	1 pc(s).	**9682.184**
600	–	2	1 pc(s).	**9682.186**
600	■	2	1 pc(s).	**9682.187**
800	–	2	1 pc(s).	**9682.188**
1000	–	3	1 pc(s).	**9682.180**
1200	–	3	1 pc(s).	**9682.192**
1400	–	3	1 pc(s).	**9682.194**
1600	–	4	1 pc(s).	**9682.196**
1800	–	4	1 pc(s).	**9682.198**
2000	–	4	1 pc(s).	**9682.190**

For enclosure width 1000 mm

Height mm	With viewing window	Number of locks	Packs of	Model No.
400	–	2	1 pc(s).	**9682.104**
600	–	2	1 pc(s).	**9682.106**
800	–	2	1 pc(s).	**9682.108**

For enclosure width 1200 mm

Height mm	With viewing window	Number of locks	Packs of	Model No.
400	–	2	1 pc(s).	**9682.124**
600	–	2	1 pc(s).	**9682.126**
800	–	2	1 pc(s).	**9682.128**

Installation accessories for modular front design

Perforated mounting strip

for partial door

For retrospective external mounting. The perforated mounting strips have a 25 mm pitch pattern of holes and may be used for mounting individual accessories such as cable ducts, conduit holders etc. on the rear of the door.

Hole diameter of perforated mounting strip: 4.5 mm

Material:
– Sheet steel, 1 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Length mm	For partial door height mm	Packs of	Model No.
400	198	200 – 800	10 pc(s).	**9681.204**
600	398	150 – 800	10 pc(s).	**9681.206**
800	598	150 – 800	10 pc(s).	**9681.208**

Note:
– For enclosure width 1000 mm you will need: 1 x 9681.204 and 1 x 9681.206
– For enclosure width 1200 mm you will need: 2 x 9681.206

Front trim panel, top

for VX

To finish off the modular front design at the top when using partial doors. The front trim panels may be removed from the outside by unscrewing.
The cross member required for mounting is included with the supply of the mounted partial door.

Material:
– Sheet steel, 1.5 mm

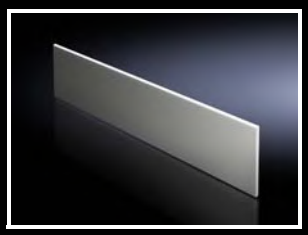
Surface finish:
– Textured paint

Colour:
– RAL 7035

Supply includes:
– Front trim panel
– Assembly parts

Solid, protection category IP 54

For enclosure width mm	Height mm	Packs of	Model No.
400	100	1 pc(s).	**9682.314**
400	300	1 pc(s).	**9682.324**
600	100	1 pc(s).	**9682.316**
600	300	1 pc(s).	**9682.326**
800	100	1 pc(s).	**9682.318**
800	300	1 pc(s).	**9682.328**
1000	300	1 pc(s).	**9682.320**
1200	300	1 pc(s).	**9682.322**



Front trim panel, bottom

for VX

To finish off the modular front design at the bottom when using partial doors. If version IP 2X is chosen, a roof plate with protection category IP 2X should be selected for top ventilation. The front trim panels may be removed from the outside by unscrewing.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Textured paint

Colour:
– RAL 7035

Supply includes:
– Front trim panel including cross member
– Assembly parts

Solid, protection category IP 54

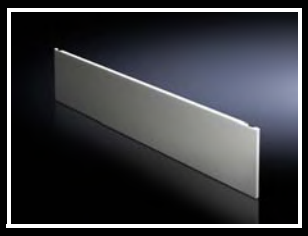
For enclosure width mm	Height mm	Packs of	Model No.
400	100	1 pc(s).	**9682.334**
400	300	1 pc(s).	**9682.344**
600	100	1 pc(s).	**9682.336**
600	300	1 pc(s).	**9682.346**
800	100	1 pc(s).	**9682.338**
800	300	1 pc(s).	**9682.348**
1000	100	1 pc(s).	**9682.330**
1000	300	1 pc(s).	**9682.340**
1200	100	1 pc(s).	**9682.332**
1200	300	1 pc(s).	**9682.342**

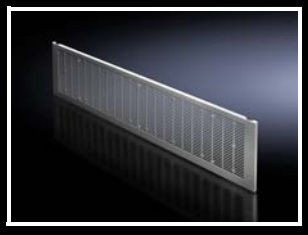
Vented, protection category IP 2X

For enclosure width mm	Height mm	Packs of	Model No.
400	300	1 pc(s).	**9682.354**
600	300	1 pc(s).	**9682.356**
800	300	1 pc(s).	**9682.358**
1000	300	1 pc(s).	**9682.350**
1200	300	1 pc(s).	**9682.352**

Also required:

Roof plate IP 2X, see page 961





Installation accessories for modular front design

Trim panel, hinged at the top

For the installation of control and display components, in conjunction with
– Modular front design
– Protective bar

Material:
– Sheet steel, 2 mm

Surface finish:
– Textured paint

Colour:
– RAL 7035

Supply includes:
– Hinges, cam locks with double-bit insert and assembly parts

Width mm	Height mm	Packs of	Model No.
600	300	1 pc(s).	**8620.500**
800	300	1 pc(s).	**8620.501**
1200	300	1 pc(s).	**8620.502**

Accessories:

– Stay for trim panel, hinged at the top, see page 928
– Lock inserts, type A, see page 941

Drawer

For mouse and keyboard with a maximum width of 500/700 mm. A high level of protection is retained, even with the flap open.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Flap and assembly parts
– Cross member

Height mm	Width mm	Model No.
200	600	**8620.520**
200	800	**8620.521**

Accessories:

– Lock inserts, type A, see page 941

Support stay

for trim panel, hinged at the top
5 pitch pattern positions up to a maximum opening angle of approx. 85°.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
2 pc(s).	**8801.260**

System window

To cover display and operating elements or cut-outs, and to protect against dirt and liquids as well as unauthorised access.

Consisting of the following 2 components:

1. Base frame:
- Easily screw-fastened to the door thanks to modified dimensions (tubular door frame may be used as a drilling template)
- Readily height-adjustable
- Stabilises the door cut-out
- Conceals the cut edge
- The rain canopy
  - prevents dirt from landing on the seal
  - protects the glass from being lifted out
  - prevents the ingress of dirt, and prevents moisture from running behind the window when opened
- Frame section height 30 mm or 60 mm

2. Viewing window:
- Made from single-pane safety glass:
  - High level of resistance to solvents and scratches
  - Anti-static
  - Reduced risk of injury if broken
- Cam lock with double-bit insert, may be exchanged for lock inserts, type A, see page 941
- Hinge with 180° opening angle, easily inserted

Material:
- Extruded aluminium sections with die-cast zinc corner pieces and single-pane safety glass

Surface finish:
- Base frame: Powder-coated in RAL 7035
- Hinge and lock section: Natural-anodised

Protection category IP to IEC 60 529:
- IP 54

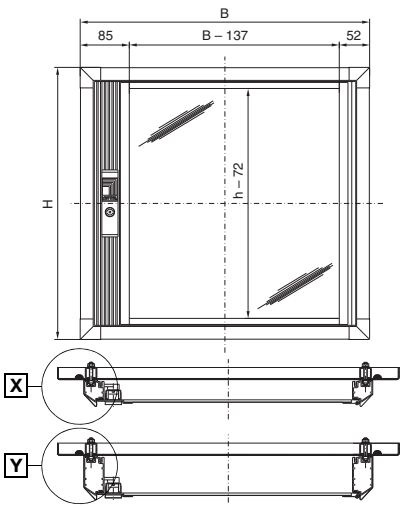
30 section

To fit enclosure width mm	Window dimensions, external mm		Model No.
	W	H	
600	500	270	**2735.500**
		370	**2735.510**
		470	**2735.520**
		570	**2735.530**
		670	**2735.540**
800	700	270	**2735.560**
		370	**2735.570**
		470	**2735.580**
		570	**2735.590**
		670	**2735.250**

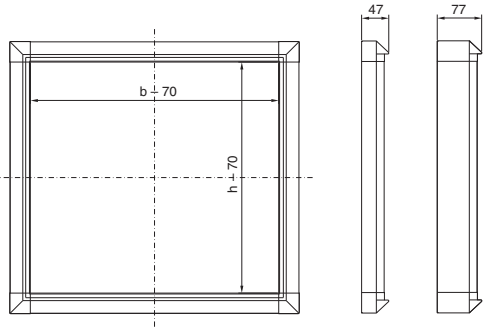
60 section

To fit enclosure width mm	Window dimensions, external mm		Model No.
	W	H	
600	500	370	**2736.510**
		470	**2736.520**
		570	**2736.530**
		670	**2736.540**
800	700	670	**2736.500**

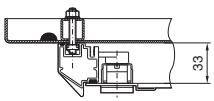
Note:
- Not suitable for outdoor siting



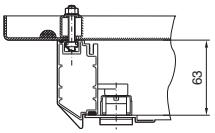
Viewing area (B–137) offset by 16.5 mm towards the hinge side



View X
for section height 30



View Y
for section height 60



Viewing window/operating panel

Viewing window

For mounting on
– AX enclosures instead of the door
– Surfaces

Max. installation depth: Depth - 4 mm
Visible area:
(Width - 60 mm) x (Height - 60 mm)

Material:
– Frame: Aluminium, natural anodised
– Glazed panel: Acrylic

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Plastic handle with lock insert no. 3524 E

Depth 36 mm

For use as door variant with	Width mm	Height mm	Model No.
1050.000, 1350.000, 1007.000, 1013.000	497	497	**2733.010**
1039.000, 1339.000, 1009.000	597	377	**2730.010**
1010.000, 1054.000, 1060.000, 1360.000	597	597	**2731.010**
1012.000, 1076.000, 1376.000	597	757	**2732.010**

Depth 62 mm

For use as door variant with	Width mm	Height mm	Model No.
1050.000, 1350.000, 1007.000	497	497	**2763.010**
1039.000, 1339.000, 1009.000	597	377	**2760.010**
1010.000, 1054.000, 1060.000, 1360.000	597	597	**2761.010**
1012.000, 1076.000, 1376.000	597	757	**2762.010**

Acrylic glazed cover

With security lock, lock no. 3524 E.

Material:
– Frame:
Extruded aluminium sections with die-cast corner pieces
– Glazed panel: Smoked acrylic

Protection category IP to IEC 60 529:
– IP 54

Acrylic glazed covers, 482.6 mm (19")

U	Width mm	Height mm	Depth mm	Model No.
3	320	158	47.5	**2780.000**
3	534	158	47.5	**2781.000**
6	534	291.5	47.5	**2782.000**
9	534	425	47.5	**2796.000**

Max. installation depth: 43 mm
Visible area:
(Width - 40 mm) x (Height - 20.5 mm)

Metric acrylic glazed covers

Width mm	Height mm	Depth mm	Model No.
400	200	47.5	**2784.000**
400	400	47.5	**2785.000**
500	200	47.5	**2786.000**
500	400	47.5	**2787.000**
600	200	47.5	**2788.000**
600	400	47.5	**2789.000**

Max. installation depth: 43 mm
Visible area:
(Width - 40 mm) x (Height - 20.5 mm)

Viewing window/operating panel

Viewing window

Stainless steel
Fitted as standard with internal 130° hinges and all-round seal. The double-bit lock insert may be exchanged for 27 mm lock inserts, type A.

Material:
– Stainless steel 1.4301 (AISI 304)
– Single-pane safety glass

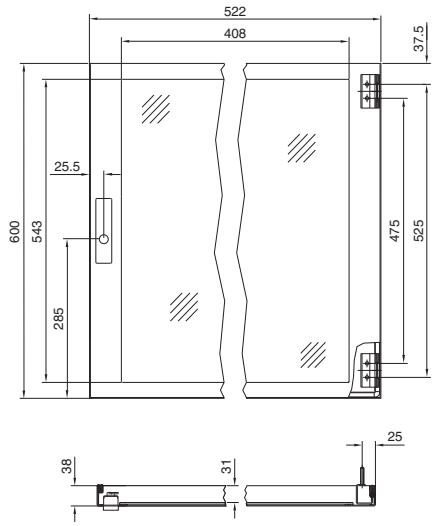
Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Assembly parts

Width mm	Height mm	Depth mm	Model No.
522	600	38	**2793.560**

Accessories:

– Lock inserts 27 mm, type A, see page 941



Operating panel

For mounting on
– AX enclosures instead of the door
– Surfaces

Frame construction with a 3 mm aluminium plate secured from the inside.

Material:
– Aluminium, natural anodised

Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Aluminium frame
– Display panel
– Hinges
– Brackets

For use as door variant for AX	Width mm	Height mm	Depth mm	Model No.
1004.000 1011.000 1031.000	377	297	36	**2741.010**
1006.000 1303.000 1380.000	377	377	36	**2742.010**
1008.000 1038.000 1338.000	377	597	36	**2743.010**
1007.000 1013.000 1050.000 1350.000	497	497	36	**2745.010**
1009.000 1039.000 1339.000	597	377	36	**2744.010**
1010.000 1060.000 1304.000 1360.000	597	597	36	**2746.010**
For surfaces	197	297	36	**2740.010**

Area available for population:
(Width - 70 mm) x (Height - 70 mm)

Dimensions of aluminium plate:
(Width - 54 mm) x (Height - 54 mm)

Accessories:

– Cam lock 2749.100, see page 932

Viewing window/operating panel

Cam lock

for operating panel
May be retrofitted to the operating area or enclosure wall of operating panels. Standard double-bit insert may be exchanged for lock inserts, type C.

Packs of	Model No.
1 pc(s).	**2749.100**

Accessories:

– Lock inserts, type C, see page 941

Identification strip

For individual field identifiers on the door, including transparent cover and assembly parts.

For labels:
Width: Enclosure width - 150 mm
Height: 29 mm
Thickness: 0.75 mm

Colour:
– RAL 7035

For enclosure width mm	Model No.
600	**8618.450**
800	**8618.451**

Small enclosures, compact enclosures and operating housings AX, sheet steel

Application		Enclosure series: E-Box KX, With cam	Compact enclosure AX/AX IT, With cam	Compact enclosure AX/AX IT, With 3-point lock	Operating housings with handle strips AX, With cam	Plastic enclosure AX, With cam	EL 3-part, 3 – 15 U	Lock inserts for handle systems: Profile half-cylinders, Lock and push-button inserts	Profile half-cylinders, DIN 18 252	Lock inserts, Type A	Lock inserts, Type F	Lock inserts, Lock and push-button inserts
	from page	65	85	89	179	94	715	942	942	941	941	942
Handle systems for enclosures												
Comfort handle AX												
For lock inserts or profile half-cylinders	939	–	–	■	–	–	–	■	■	■	–	–
With security lock insert E1	939	–	–	■	–	–	–	–	–	–	–	–
For padlock and lock inserts or profile half-cylinders	939	–	–	■	–	–	–	■	■	■	–	–
Mini-comfort handle AX												
For lock inserts or profile half-cylinders	940	■	■	–	■	–	–	■	■	■	–	–
For padlock and lock inserts or profile half-cylinders	940	■	■	–	■	–	–	■	■	■	–	–
Mini-comfort handle for AX plastic												
For lock inserts or profile half-cylinders	941	–	–	–	–	■	–	■	■	■	–	–
Mini-comfort handle for 3-part EL enclosures												
For lock inserts	949	–	–	–	–	–	■	■	–	–	■	–
For profile half-cylinders	949	–	–	–	–	–	■	■	■	–	–	–
Lock inserts for enclosures												
Lock inserts												
Type A	941	■	■	■	■	■	–					

Allocation of lock systems

Large enclosures and PC enclosures, sheet steel

Application		Enclosure series						Lock inserts for handle systems					
						PC enclosure		Profile half-cylinders		Lock inserts			
		VX/VX IT	VX SE	VX partial doors for modular front design	TE	Door	For keyboard drawer or fold-out tray	Lock and push-button inserts	DIN 18 252	Type A	Type F	Version G	Lock and push-button inserts
	from page	117/ 687	143	926	704	164	164	942	942	941	941	941	942
Handle systems for enclosures													
Comfort handle VX													
For lock inserts	937	■	–	–	–	–	–	–	–	–	–	■	■
For padlock and lock inserts	937	■	–	–	–	–	–	–	–	–	–	■	■
With security lock insert E1	937	■	–	–	–	–	–	–	–	–	–	–	–
For profile half-cylinders	937	■	–	–	–	–	–	■	■	–	–	–	–
Prepared for ASSA lock system	937	■	–	–	–	–	–	–	–	–	–	–	–
With code	946	■	–	–	–	–	–	–	■	–	–	–	–
CMC III online comfort handle VX													
With master key function	946	■	–	–	–	–	–	–	■	–	–	–	–
Radio comfort handle VX													
With card reader	947	■	–	–	–	–	–	–	–	–	–	–	–
Comfort handle for VX SE, PC, IW, EL													
For lock inserts	938	–	■	–	–	■[1]	–	–	–	–	■	–	■
For padlock and lock inserts	938	–	■	–	–	■[1]	–	–	–	–	■	–	■
For profile half-cylinders	938	–	■	–	–	■[1]	–	■	■	–	–	–	–
Comfort handle AX													
For lock inserts or profile half-cylinders	939	–	–	–	■	–	–	■	■	■	–	–	–
With security lock insert E1	939	–	–	–	■	–	–	–	–	–	–	–	–
For padlock and lock inserts or profile half-cylinders	939	–	–	–	■	–	–	–	–	■	–	–	–
Mini-comfort handle AX													
For lock inserts or profile half-cylinders	940	–	–	■	–	–	–	■	■	■	–	–	–
For padlock and lock inserts or profile half-cylinders	940	–	–	■	–	–	–	■	■	■	–	–	–
Ergoform-S handle													
With code	949	–	–	–	■	–	–	–	■	■	–	–	–
Electromagnetic	950	–	–	–	■	–	–	–	■	■	–	–	–
Lock inserts for enclosures													
Lock inserts													
Type A	941	–	–	■	■	–	■						
Type F	941	–	■	–	–	■	–						
Version G	941	■	–	–	–	–	–						

[1] Only in conjunction with the handle adaptor for comfort handle 8611.300, see page 918

Console systems, industrial workstation, Comfort Panel and Optipanel, sheet steel

Application		Enclosure series: TopConsole TP: Desk section and console	TopConsole TP: Pedestal	One-piece console TP: Console cover	One-piece console TP: Console door	Universal console TP	IW	Comfort Panel	Optipanel	Lock inserts for handle systems: Profile half-cylinders: Lock and push-button inserts	Profile half-cylinders: DIN 18 252	Lock inserts: Type A	Lock inserts: Type F	Lock inserts: Lock and push-button inserts
	from page	157	157	161	161	162	167	172	174	942	942	941	941	942
Handle systems for enclosures														
Comfort handle for VX SE, PC, IW, EL														
For lock inserts	938	–	–	–	–	–	■	–	–	–	–	–	■	■
For padlock and lock inserts	938	–	–	–	–	–	■	–	–	–	–	–	■	■
For profile half-cylinders	938	–	–	–	–	–	■	–	–	■	■	–	–	–
Comfort handle AX														
For lock inserts or profile half-cylinders	939	–	■	–	■	■	–	–	–	■	■	■	–	–
With lock insert, lock E1	939	–	■	–	■	■	–	–	–	–	–	–	–	–
For padlock and lock inserts or profile half-cylinders	939	–	■	–	■	■	–	–	–	■	■	■	–	–
T handles														
Type B	943	■	–	■	–	–	–	–	–					
Type C	943	–	–	–	–	–	–	■	■					
Plastic handles														
Type B	942	■	–	■	–	–	–	–	–					
Type C	942	–	–	–	–	–	–	■	■					
Lock inserts for enclosures														
Lock inserts														
Type A	941	■	■	■	■	■	–	–	–					
Type F	941	–	–	–	–	–	■	–	–					
Lock cylinder inserts														
Type B	943	–	–	–	–	–	■	–	–					

Allocation of lock systems

Enclosures and cases, stainless steel

Application		Enclosure series						Lock inserts for handle systems					
			AX		One-piece console TP			Profile half-cylinders		Lock inserts			
		E-Box KX	With cam	With 3-point lock	Console cover	VX	VX SE	Lock and push-button inserts	DIN 18 252	Type A	Type F	Type G	Lock and push-button inserts
	Page	233	237	240	251	243	249	942	942	941	941	941	942
Handle systems for enclosures													
Comfort handle VX													
For lock inserts, stainless steel, precision-cast	937	–	–	–	–	■	–	–	–	–	–	■	■
For profile half-cylinders, stainless steel, precision-cast	937	–	–	–	–	■	–	■	■	–	–	–	–
Comfort handle for VX SE, PC, IW, EL													
For lock inserts, matt chrome	938	–	–	–	–	–	■	–	–	–	■	–	■
For profile half-cylinders, matt chrome	938	–	–	–	–	–	■	■	■	–	–	–	–
Comfort handle AX													
For lock inserts or profile half-cylinders, stainless steel, precision-cast	939	–	–	■	–	–	–	■	■	■	–	–	–
Mini-comfort handle AX													
For lock inserts or profile half-cylinders	940	■	■	–	–	–	–	■	■	■	–	–	–
For padlock and lock inserts or profile half-cylinders	940	■	■	–	–	–	–	■	■	■	–	–	–
Plastic handle													
Type C	942	–	–	–	■	–	–						
T handle													
Type C	943	–	–	–	■	–	–						
Lock inserts for enclosures													
Lock inserts													
Type A	941	■	■	■	–	–	–						
Type C	941	–	–	–	■	–	–						
Type F	941	–	–	–	–	–	■						
Type G	941	–	–	–	–	■	–						
Cam lock, stainless steel													
With double-bit insert, stainless steel 1.4404 (AISI 316L)	943	■	■	–	–	–	–						
Lock cylinder inserts													
Type C	943	–	–	–	■	–	–						

Comfort handle VX

for VX, VX IT

As the handle does not take up any swing space, due to its folding action, the door surface area available for installed equipment is maximised. Simple assembly, thanks to the snap-mounted handle system.
Prepared for the installation of lock inserts, lock and push-button inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders.

	For lock inserts	For padlock and lock inserts	With security lock insert E1[1]	For profile half-cylinders	Prepared for ASSA lock system
	Model No.				
Die-cast zinc RAL 7035	**8618.200**	**8618.230**	**8618.240**	**8618.250**	**8618.270**
Die-cast zinc RAL 9005	**8618.201**	**8618.231**	**–**	**8618.251**	**–**
Precision-cast stainless steel	**8618.220**	**–**	**–**	**8618.280**	**–**
Lock inserts, type G					
7 mm square	8618.300	8618.300	–	–	–
8 mm square	8618.301	8618.301	–	–	–
7 mm triangular	8618.302	8618.302	–	–	–
8 mm triangular	8618.303	8618.303	–	–	–
Screwdriver	8618.304	8618.304	–	–	–
Daimler insert	8618.305	8618.305	–	–	–
3 mm double-bit	8618.306	8618.306	–	–	–
Fiat	8618.307	8618.307	–	–	–
6.5 mm triangular	8618.308	8618.308	–	–	–
Lock and push-button inserts					
Lock insert, lock no. 3524 E[2]	8611.180	8611.180	–	2467.000	–
Push-button insert	8611.190	8611.190	–	2468.000	–
Push-button and lock insert[2]	8611.200[3]	8611.200[3]	–	2469.000[4]	–
Profile half-cylinders					
To DIN 18 252[5]	–	–	–	9785.040[7]	–
	–	–	–	9785.042[6]	–

[1] Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key
[2] With 2 keys
[3] Lock no. 12321, no other lock is possible
[4] Lock no. 2123, no other lock is possible
[5] With 3 keys for each lock insert
[6] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[7] Lock-specific key

Locking bar latch to CNOMO[1]

for VX

To fit all locking bars in doors and glazed doors with standard lock or comfort handle VX. The latch prevents the locking bars from moving when the door is open.

[1] CNOMO is a French automobile industry standard. For safety reasons, it must not be possible to lock the handle whilst the door is open.

Packs of	**Model No.**
10 pc(s).	**8618.460**

Also required:

– For CNOMO[1] lock inserts, type G, 6.5 mm triangular insert 8618.308, see page 941

Lock systems

Comfort handle

for VX SE, PC, IW, EL

As the handle does not take up any swing space, due to its folding action, the door surface area available for installed equipment is maximised.
Prepared for the installation of lock inserts, lock and push-button inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders.

Also required:

– Handle adaptor, see page 918, for mounting on glazed door for VX SE , PC bottom door, IW designer door

Note:

– When replacing the comfort handle in the wall-mounted enclosure EL, 3-part with 21 U, please note that the handle can only be replaced as a complete system (handle including lock insert)
– The comfort handle 8611.020 is included with the supply of the enclosure

	For lock inserts	For padlock and lock inserts	For profile half-cylinders
		Model No.	
Die-cast zinc RAL 7035	**8611.020**	**8611.290**	**8611.070**
Matt chrome	**8611.330**	**–**	**8611.340**
Lock inserts, type F			
7 mm square	8611.100	8611.100	–
8 mm square	8611.110	8611.110	–
7 mm triangular	8611.120	8611.120	–
8 mm triangular	8611.130	8611.130	–
Screwdriver	8611.140	8611.140	–
Daimler insert	8611.150	8611.150	–
3 mm double-bit	8611.160	8611.160	–
Fiat	8611.170	8611.170	–
6.5 mm triangular	8611.220	8611.220	–
Lock and push-button inserts			
Lock insert, lock no. 3524 E[1)]	8611.180	8611.180	2467.000
Push-button insert	8611.190	8611.190	2468.000
Push-button and lock insert[1)]	8611.200[2)]	8611.200[2)]	2469.000[3)]
Profile half-cylinders			
to DIN 18 252[4)]	–	–	9785.040[6)]
	–	–	9785.042[5)]

[1)] With 2 keys
[2)] Lock no. 12321, no other lock is possible
[3)] Lock no. 2123, no other lock is possible
[4)] With 3 keys for each lock insert
[5)] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[6)] Lock-specific key

Comfort handle AX

for compact enclosures AX with 3-point lock system, TE, TP, swing frame, large

The unlocked handle folds out forwards, and the lock is opened by swivelling.
Prepared for the installation of lock inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders, as well as lock and push-button inserts.

	For lock inserts or profile half-cylinders	With security lock insert E1[1]	For padlocks and lock inserts or profile half-cylinders
	Model No.		
Die-cast zinc RAL 7035	**2435.100**	**2435.200**	**2435.400**
Precision-cast stainless steel	**2435.300**	**–**	**–**
Lock inserts, type A			
7 mm square	2460.000	–	2460.000
8 mm square	2461.000	–	2461.000
7 mm triangular	2462.000	–	2462.000
8 mm triangular	2463.000	–	2463.000
Screwdriver	2464.000	–	2464.000
Daimler insert	2465.000	–	2465.000
3 mm double-bit	2466.000	–	2466.000
Fiat	2307.000	–	2307.000
6.5 mm triangular	2460.650	–	2460.650
Lock and push-button inserts			
Lock insert, lock no. 3524 E[2]	2467.000	–	2467.000
Push-button insert	2468.000	–	2468.000
Push-button and lock insert[2]	2469.000[3]	–	2469.000[3]
Profile half-cylinders			
to DIN 18 252[4]	9785.040[6]	–	9785.040[6]
	9785.042[5]	–	9785.042[5]

[1] Only for use with VW, Audi, SEAT, SkodaAuto, supplied without key
[2] With 2 keys.
[3] Lock no. 2123; no other lock is possible
[4] With 3 keys for each lock insert
[5] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[6] Lock-specific key

Mini-comfort handle AX

for AX/AX IT with cam lock, KX with cam lock, partial doors for modular front design

The lock is opened by swivelling the unlocked handle.

Prepared for the installation of lock inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders, as well as lock and push-button inserts.

	For lock inserts or profile half-cylinders	For padlocks and lock inserts or profile half-cylinders
	Model No.	
Die-cast zinc RAL 7035	**2537.100**	**2537.300**
Lock inserts, type A		
7 mm square	2460.000	2460.000
8 mm square	2461.000	2461.000
7 mm triangular	2462.000	2462.000
8 mm triangular	2463.000	2463.000
Screwdriver	2464.000	2464.000
Daimler insert	2465.000	2465.000
3 mm double-bit	2466.000	2466.000
Fiat	2307.000	2307.000
6.5 mm triangular	2460.650	2460.650
Lock and push-button inserts		
Lock insert, lock no. 3524 E[1)]	2467.000	2467.000
Push-button insert	2468.000	2468.000
Push-button and lock insert[1)]	2469.000[2)]	2469.000[2)]
Profile half-cylinders		
to DIN 18 252[3)]	9785.040[5)]	9785.040[5)]
	9785.042[4)]	9785.042[4)]

[1)] With 2 keys.
[2)] Lock no. 2123; no other lock is possible
[3)] With 3 keys for each lock insert
[4)] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[5)] Lock-specific key

Mini-comfort handle AX

for AX plastic

The lock is opened by swivelling the unlocked handle.
Prepared for the installation of lock inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders, as well as lock and push-button inserts.

Packs of	Model No.
1 pc(s).	**1485.600**
Lock inserts, type A	
7 mm square	2460.000
8 mm square	2461.000
7 mm triangular	2462.000
8 mm triangular	2463.000
Screwdriver	2464.000
Daimler insert	2465.000
3 mm double-bit	2466.000
Fiat	2307.000
6.5 mm triangular	2460.650
Lock and push-button inserts	
Lock insert, lock no. 3524 E[1)]	2467.000
Push-button insert	2468.000
Push-button and lock insert[1)]	2469.000[2)]
Profile half-cylinders	
to DIN 18 252[3)]	9785.040[5)]
	9785.042[4)]

[1)] With 2 keys.
[2)] Lock no. 2123; no other lock is possible
[3)] With 3 keys for each lock insert
[4)] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[5)] Lock-specific key

Lock inserts

for handles and enclosures

Accessories:

– Enclosure key, see page 945

Type	A	C	F	G
Material	Die-cast zinc	Die-cast zinc	Die-cast zinc	Die-cast zinc
Length	27 mm	41 mm		
	Model No.			
7 mm square	**2460.000**	**2523.000**	**8611.100**	**8618.300**
8 mm square	**2461.000**	**2526.000**	**8611.110**	**8618.301**
7 mm triangular	**2462.000**	**2527.000**	**8611.120**	**8618.302**
8 mm triangular	**2463.000**	**2528.000**	**8611.130**	**8618.303**
Screwdriver	**2464.000**	**–**	**8611.140**	**8618.304**
Daimler insert	**2465.000**	**2522.000**	**8611.150**	**8618.305**
3 mm double-bit	**2466.000**	**2483.000**	**8611.160**	**8618.306**
Fiat	**2307.000**	**–**	**8611.170**	**8618.307**
6.5 mm triangular	**2460.650**	**–**	**8611.220**	**8618.308**

Lock systems

Lock inserts

for installation in comfort handle, mini-comfort handle

Lock and push-button inserts

Installation options:
- In comfort handle VX for lock inserts
- In comfort handle for VX SE, IW, PC for lock inserts
- In mini-comfort handle for EL for lock inserts

	Model No.
Security lock insert, lock no. 3524 E[1]	**8611.180**
Push-button insert	**8611.190**
Push-button and lock insert[1]	**8611.200[2]**

[1] With two keys
[2] Lock no. 12321; no other lock is possible

Lock and push-button inserts and profile half-cylinders

Installation options:
- In comfort handle VX for profile half-cylinders
- In comfort handle AX
- In mini-comfort handle AX
- In mini-comfort handle AX for AX plastic
- In mini-comfort handle for EL for profile half-cylinder

	Model No.
Security lock insert, lock no. 3524 E[1]	**2467.000**
Push-button insert	**2468.000**
Push-button and lock insert[1]	**2469.000[2]**
Profile half-cylinders to DIN 18 252[3]	**9785.040[5]**
	9785.042[4]

[1] With two keys
[2] Lock no. 2123; no other lock is possible
[3] With 3 keys for each lock insert
[4] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[5] Lock-specific key

Plastic handles

With or without lock cylinder insert.

Supply includes:
- Assembly parts and seal

Type	B		C	
	With lock cylinder insert, lock no. 3524 E[1]	Without lock cylinder insert	With lock cylinder insert, lock no. 3524 E[1]	Without lock cylinder insert
Installation in	Console lid TP, sheet steel		Console lid TP, stainless steel Comfort Panel Optipanel	
	Model No.			
RAL 9011	**2576.000**	**2533.000**	**2485.000**	**2485.100**

[1] With two keys

T handles

With or without lock cylinder insert.

Supply includes:
– Seal

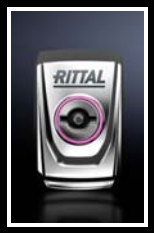
Type	B		C	
	With lock cylinder insert[1]	Without lock cylinder insert	With lock cylinder insert[1]	Without lock cylinder insert
Installation in	Console lid TP, sheet steel		Console lid TP, stainless steel Comfort Panel Optipanel	
	Model No.			
	2575.000[2]	**2572.000**	**2535.000[2]**	**2536.000**

[1] With 2 keys
[2] Lock no. 3524 E

Cam lock, stainless steel

for AX, KX E-Box
With double-bit insert.

Material:
– Made entirely from stainless steel 1.4404 (AISI 316L)



For	Packs of	Model No.
AX	1 pc(s).	**2304.100**
KX E-Box	1 pc(s).	**2309.110**

Accessories:

– Lock inserts, type A, see page 941

Lock cylinder inserts

Type	B	C
	With lock no. 3524 E[1]	With lock no. 3524 E[1]
Installation in	IW	Console lid TP, stainless steel
Material	Die-cast zinc	Die-cast zinc
	Model No.	
	2571.000	**2525.000**

[1] With two keys

Lock systems

Multiple lock

for 6 padlocks
The ideal solution in cases where several people need individual access for maintenance and repair purposes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
2 pc(s).	**2493.500**

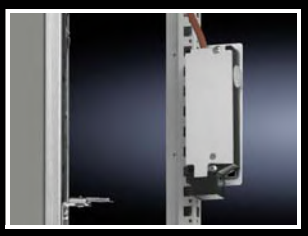
Lock cover

for AX/AX IT, prepared for a lead seal
For retrospective mounting on all compact enclosures AX, sheet steel, with cam lock.

Material:
– Polyamide

Colour:
– RAL 7035

Packs of	Model No.
2 pc(s).	**2476.100**



Safety lock

Fitted to doors, to protect against contact with live electrical equipment whilst the master switch is ON.

Function:
– Locks the door when the master switch is ON.
– Mains power (voltage) is only enabled whilst the door is closed.
– Monitoring of the lock magnet via an additional closing contact.

Supply includes:
– Lock
– Actuator
– Angle bracket
– Assembly parts

Connection voltage for lock magnet	Model No.
230 V AC 11 VA	**2416.000**
24 V DC 8 W	**2418.000**
120 V AC 8 VA	**2419.000**

Also required:

– For twin-door enclosures (for the overlapping door, to indicate "enclosure door closed"): Door-operated switch 4127.010, see page 1024

Enclosure key

For lock inserts. Enclosure, case and lock systems are supplied as standard with matching keys.

	Model No.			
	–	–	2549.000	2549.500[2)3)]
Double-bit no. 5	**2531.000**	–	■	■
Security lock no. 3524 E	–	**2532.000**[1)]	–	–
7 mm triangular	**2545.000**	–	–	■
8 mm triangular	**2546.000**	–	■	■
7 mm square	**2547.000**	–	–	■
8 mm square	**2548.000**	–	■	■
For HD locks	**2549.600**	–	–	–
For Daimler	**2521.000**	–	–	–
For Fiat	**2308.000**	–	–	–

[1)] Packs of 2
[2)] With bit adaptor and reversible bit for: Multi-tooth size 25 and 30
[3)] Bit 2549.510 for HD lock insert, see page 224

Lock systems

Comfort handle VX

with numerical code, for VX, VX IT
Flexible access opportunities with individual 4-digit code.

Benefits:
– Enhanced security by automatically wiping the code after use
– Emergency opening and overwriting of the code is possible with a 40 mm profile half-cylinder to DIN 18 252

Functional principle:
– The 4-digit code may be set individually by the user
– Programming mode can only be accessed via the set code
– Once the code has been entered or used, it is automatically reset to the digits "0000" and thus cannot be read by a third person once the handle has been opened
– May be opened in an emergency situation or if the code is forgotten using the master key function with key

Dimensions:
– W x H x D: 41 x 386 x 46 mm, door-mounted

Material:
– Die-cast zinc
– Plastic

Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 30

Packs of	Model No.
1 pc(s).	**7030.601**

Supply includes:
– Comfort handle for profile half-cylinders
– Handle adaptor for VX IT aluminium glazed door and VX IT aluminium sheet steel door, vented (door hinge on right/left)
– Assembly parts

Also required:
– Profile half-cylinders, see page 942

Accessories:
– Mounting adaptor for TS 8 doors, see page 948

CMC III online comfort handle VX

with master key function for VX, VX IT
For door locking, handle lever monitoring and status display. It can be opened directly via a 24 V DC supply voltage or connected to the CMC III via the CMC III Access Control.

Benefits:
– Remote control and an extensive range of functions for automated access control by linking to the CMC III, e.g. activation via an optional coded lock or transponder reader
– Optical LED status display of the handle or superordinate CMC III system in the rack
– Individual activation and colour selection configurable via the CMC III
– Prepared for use of a 40 mm profile half-cylinder to DIN 18 252

Technical specifications:
– Rated voltage: 24 V DC
– Rated current: 100 mA

Dimensions:
– W x H x D: 41 x 386 x 42 mm, door-mounted

Material:
– Die-cast zinc
– Plastic

Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 30

Packs of	Model No.
1 pc(s).	**7030.611**

Supply includes:
– Comfort handle for profile half-cylinders
– Connection cable RJ12, 2.9 m
– Handle adaptor for VX IT aluminium glazed door and VX IT aluminium sheet steel door, vented (door hinge on right/left)
– Assembly parts

Also required:
– Profile half-cylinders, see page 942

Accessories:
– CMC III access control, see page 812
– CMC III Processing Unit/Compact, from page 804
– CMC III coded lock VX, see page 813
– CMC III transponder reader VX, see page 813

Radio comfort handle VX

with card reader for VX, VX IT

Battery operated radio handle for door locking, handle lever/rack door monitoring and status display.

Benefits:
- Supports remote control via radio by linking to CMC III
- Stand-alone operation supported
- Easily retrofitted without any machining thanks to radio technology
- Optical LED status display of the handle or superordinate CMC III system in the rack
- Individual activation and colour selection configurable via CMC III
- Service life of the integral batteries is up to 2 years.
- Supports use of the handle without radio technology, connection to CMC III via optional online adapter
- High standard of security thanks to encrypted radio transmission of security-relevant signals using Advanced Encryption Standard 128 Bit (AES 128)

Functional principle:
- Battery operation: EnOcean 868 MHz radio technology with encryption
- Operation with CMC III: Up to 128 radio handles on one CMC III system
- Stand-alone operation: Handle settings via master card or Android app “Access Control VX” with NFC-enabled smartphone
- Supports emergency opening via an integral USB-C-slot, transponder handle and external power supply
- Integral transponder card reader for Legic Advant, HID, FeliCa and NFC via Android app (Legic Prime available on request)
- Integral monitoring of lever handle
- Integral rack door monitoring of the handle position with a compass signal or infrared sensor

Dimensions:
- W x H x D: 41 x 377 x 27 mm, door-mounted

Material:
- Die-cast zinc
- Plastic

Colour:
- RAL 9005

Protection category IP to IEC 60 529:
- IP 30

Supply includes:
- Handle
- 2 batteries, type CR123A
- Handle adaptor for VX IT aluminium glazed door and VX IT aluminium sheet steel door, vented (door hinge on right/left)
- 1 Mifare classic transponder card
- Assembly parts

Packs of	**Model No.**
1 pc(s).	**7030.621**

Max. number of radio comfort handles/sensors

Wireless Units	Processing Unit Compact	Processing Unit
16	0	128

Operating modes/transponder cards

Operating mode	Setting of user cards	Max. number of user cards per handle
Stand-Alone	Master card	10
Stand-Alone	Android App + Master card	50
CMC III via radio	CMC III	1000

Also required:
- Only for remote control via the CMC III:
  CMC III Wireless Unit, see page 815
  CMC III Processing Unit/-Compact, from page 804

Accessories:
- Transponder card, see page 814
- Online adaptor for radio comfort handle, see page 948
- VX mounting adaptor for TS 8 doors, see page 948

Lock systems

Mounting adaptor

for comfort handle VX with numerical code, radio comfort handle VX
For mounting VX handles on doors

Colours:
– RAL 9005

Supply includes:
– Adaptor
– Coupling element
– Adaptor for TS glazed aluminium door
– Assembly parts

To fit enclosure type	Packs of	Model No.
TS 8	1 pc(s).	**7030.692**

Online adaptor

for radio comfort handle VX
For converting the VX radio comfort handle to a wired solution. The adaptor is inserted into the VX radio comfort handle instead of the batteries.

Application:
– Deactivation of radio technology

Functional principle:
– Control via connection cable and 24 V DC power supply instead of batteries
– Connection to CMC III access control system is also optionally supported

Technical specifications:
– Rated voltage: 24 V DC
– Rated current: 100 mA

Dimensions:
– W x H x D: 34 x 33 x 21 mm

Material:
– Plastic

Supply includes:
– Connection cable RJ12, 2.9 m

Packs of	Model No.
1 pc(s).	**7030.624**

Also required:
– Radio comfort handle VX, see page 947

Accessories:
– CMC III access control, see page 812
– CMC III Processing Unit/Compact, from page 804

Cable routing kit for doors

VX, VX IT
For optimised cable routing on the inside of the VX enclosure system doors when using a CMC III handle.

Benefits:
– The duct cover and the ring cable holder may be shortened to any desired length

Functional principle:
– When installing handles or reader units with cables, these will need to be laid close to the inside of the door. The cables are routed in the aluminium extrusion of the doors.
– To close the duct, the duct cover simply snaps onto the profile.
– For cable routing with ventilated or sheet steel doors, the ring cable holder is glued to the inside of the door.

Material:
– Plastic

Colour:
– Pale grey

Packs of	Model No.
1 pc(s).	**7030.695**

Supply includes:
– Duct cover, 2 m
– 4 ring cable holders, 0.5 m
– Assembly parts

Mini-comfort handle

for EL 3-part, , 3 – 15 U
Prepared for the installation of lock inserts or for the installation of standard commercially available 40 or 45 mm profile half-cylinders, as well as lock and push-button inserts.

	For lock inserts	For profile half-cylinders
	Model No.	
Die-cast zinc RAL 7035	**7705.110**	**7705.120**
Lock inserts, type F[6]		
7 mm square	8611.100	–
8 mm square	8611.110	–
7 mm triangular	8611.120	–
8 mm triangular	8611.130	–
Screwdriver	8611.140	–
Daimler insert	8611.150	–
3 mm double-bit	8611.160	–
Fiat	8611.170	–
6.5 mm triangular	8611.220	–
Lock and push-button inserts		
Lock insert, lock no. 3524 E[1]	8611.180	2467.000
Push-button insert	8611.190	2468.000
Push-button and lock insert[1]	8611.200[2]	2469.000[3]
Profile half-cylinders		
to DIN 18 252[4]	–	9785.040[7]
	–	9785.042[5]

[1] With 2 keys
[2] Lock no. 12321, no other lock is possible
[3] Lock no. 2123, no other lock is possible
[4] With 3 keys for each lock insert
[5] Packs of two, simultaneous locking within the same pack, no simultaneous locking for different packs
[6] Replacement of the complete system only (handle including lock inserts)
[7] Lock-specific key

Ergoform-S handle

with numerical code, for TE
Flexible access options thanks to individual 3-digit numerical code without key, or via the master key function with the additional use of 40 or 45 mm profile half-cylinders to DIN 18 252, independently of the code.

Colour	Packs of	**Model No.**
RAL 7035	1 pc(s).	**7200.810**

Accessories:

– Profile half-cylinders, see page 942
– Lock inserts, type A, see page 941

Lock systems

Ergoform-S handle

electromagnetic, for TE

For door locking and handle lever monitoring.
If the 24 V DC voltage supply is applied, the handle cannot be opened with the push-button insert.
The handle may be connected to the CMC III via the CMC III access control and activated in this way.
The push-button insert may be replaced with a lock insert or a profile half-cylinder, 40 or 45 mm to DIN 18 252.

Technical specifications:
- Rated voltage: 24 V DC
- Rated current: 100 mA

Supply includes:
- Handle including cable 0.4 m
- Push-button insert
- Connection cable RJ12, 3 m

Colour	Packs of	**Model No.**
RAL 7035	1 pc(s).	**7320.700**

Accessories:
- Profile half-cylinders, see page 942
- Lock inserts, type A, see page 941
- CMC III access control, see page 812
- CMC III Processing Unit/Compact, see page 804

180° hinges

Supply includes:
– Assembly parts

Note:
– The protection category of the enclosure may be reduced
– Door hinge remains the same within a bayed enclosure suite

Enclosure type	Door variant	Material	Colour	Packs of	180° Model No.
VX25	Sheet steel door	Steel/precision-cast	RAL 7035	4 pc(s).	**8618.330**[1]
			RAL 9005	4 pc(s).	**8618.335**[1]
	Stainless steel door	Stainless steel/ precision-cast	–	4 pc(s).	**8618.340**[1]
VX SE	Sheet steel door	Die-cast zinc	RAL 7035	4 pc(s).	**8800.190**
			Matt nickel-plated		**8701.180**
VX SE	Doors with high dynamic loads, door installations up to 900 N	Precision casting/ die-cast zinc	RAL 7035	4 pc(s).	**8800.710**
VX IT bayed enclosure suites with comfort handle	Sheet steel doors	Die-cast zinc	RAL 7035 RAL 9005	4 pc(s).	**5301.400 5301.401**
	Aluminium doors	Die-cast zinc	RAL 9005		**5301.403**
AX/AX IT	Sheet steel door	Die-cast zinc	–	3 pc(s).	**2449.010**

[1] May be mounted without machining the door, suitable for door installations up to 900 N

Cover hinge

for terminal boxes KX
The cover hinge is simply screw-fastened to the enclosure protection channel and to the edge fold. The position of the installation holes is prepunched, so no need to measure and mark out.

Supply includes:
– Cover hinge
– Stoppers
– Assembly parts

Material	Packs of	Model No.
Die-cast zinc	6 pc(s).	**1592.200**
Stainless steel 1.4404 (AISI 316L)	2 pc(s).	**1592.210**

Door, internal

Support strip

For attachment of
– Cable ducts
– Cable conduit holders
– Contact hazard protection covers
– Equipment installed on the door
– Cable clamping and attachment

4.5 mm diameter hole on a 25 mm DIN pitch pattern

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Accessories:

– Screws and self-tapping screws M5, see page 1004

For VX, VX SE, AX plastic, TP, PC, IW

Installation options:
– In VX, VX SE, PC, IW on tubular door frame
– TP on perforated door strip
– In AX plastic on mounting boss in the door

For door width mm	Distance between attachment points mm	Packs of	Model No.
400	275	20 pc(s).	**4594.000**
500	375	20 pc(s).	**4309.000**
600	475	20 pc(s).	**4596.000**
800	675	20 pc(s).	**4598.000**
900	775	20 pc(s).	**4579.000**
1000	875	20 pc(s).	**4599.000**

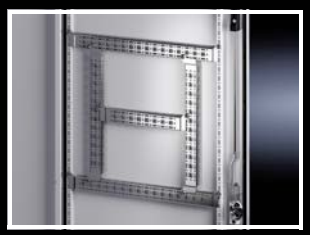
For AX

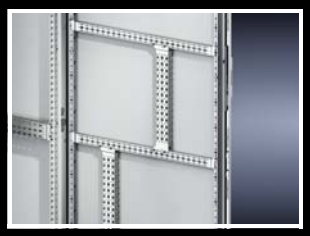
Installation options:
– In AX sheet steel in the enclosure door with cam lock
– In AX stainless steel in enclosure door with cam lock in conjunction with perforated door strip

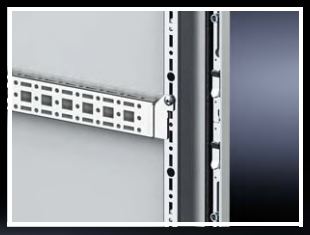
For door width mm	Distance between attachment points mm	Packs of	Model No.
380	305	20 pc(s).	**4599.100**
400	325	20 pc(s).	**4694.000**
500	425	20 pc(s).	**4695.000**
600	525	20 pc(s).	**4696.000**
760	685	20 pc(s).	**4599.200**
800	725	20 pc(s).	**4697.000**

Also required:

– For installation in AX stainless steel: AX perforated door strip, stainless steel, see page 953







Punched section with mounting flange, 14 x 39 mm

for door installation, for VX, VX SE, AX, AX plastic, PC, IW

Secure location and fast mounting on the tubular door frame.

For attaching
– Cable ducts
– Cable conduit holders
– Equipment installed on the door, etc.

Installation options:
– In VX, VX SE, PC, IW on tubular door frame
– In AX sheet steel in the enclosure door with 3-point lock system in the lockable door
– In AX stainless steel in enclosure door with 3-point lock system in the lockable door in conjunction with perforated door strip
– In AX plastic on mounting boss in the door

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For door width mm	Distance between attachment points mm	Packs of	Model No.
400	275	4 pc(s).	**8619.700**
500	375	4 pc(s).	**8619.710**
600	475	4 pc(s).	**8619.720**
800	675	4 pc(s).	**8619.730**
900	775	4 pc(s).	**8619.740**
1000	875	4 pc(s).	**8619.750**

Also required:

– For installation in AX stainless steel: AX perforated door strip, stainless steel, see page 953

Accessories:

– Screws and self-tapping screws M5 for configuring the customer's own components on the punched section with mounting flange, see page 1004

Spacers

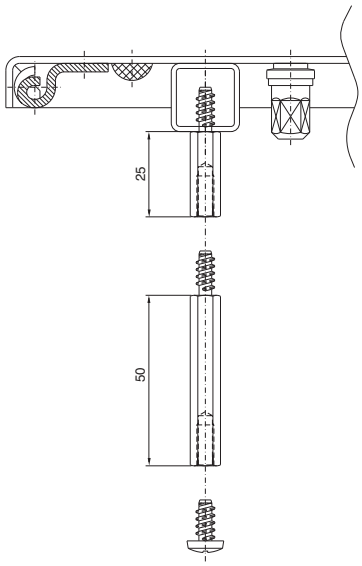
The universal assembly component for all situations where a distance from the mounting level is required. With self-tapping thread for 4.5 mm diameter holes. The following components may be attached to the rear using 5.5 x 13 mm screws:
– Top-hat / cross rails
– Contact hazard protection covers
– Master switch trim panels
– Cable clamp rails
etc.

Material:
– Hexagonal steel (SW8)

Surface finish:
– Zinc-plated

Accessories:
– Screws 5.5 x 13 mm, see page 1004

Length mm	Packs of	Model No.
25	12 pc(s).	**2311.225**
50	12 pc(s).	**2311.250**



Perforated door strip

for AX stainless steel

For vertical mounting on the threaded bolts of the door.

For attaching
– Support strips
– Punched section with mounting flange, 14 x 39 mm
– Door stay

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For door height mm	Packs of	Model No.
760	2 pc(s).	**2311.076**
1000	2 pc(s).	**2311.100**
1200	2 pc(s).	**2311.120**

Accessories:
– Support strip, see page 952
– Punched section with mounting flange, 14 x 39 mm, see page 952
– Door stay, see page 956
– Screws, see page 1004

Utility lectern

for VX, VX SE, TP, PC

For programming units etc., prepared for mounting on the tubular door frame. When required for servicing, it folds out quickly with a maximum support area, and after use is lowered between the tubular door frames in a space-saving design.

Load capacity:
– Max. 300 N

Material:
– Sheet steel

Colour:
– RAL 7035

Support area		For door width mm	Model No.
Width mm	Depth mm		
413	400	600	**4638.600**
613	400	800	**4638.800**

Door, internal

Wiring plan lectern

for VX, VX SE, TP, PC

Holds wiring plans during fault-finding and maintenance work. Wiring plan lecterns may be bayed in line with the door width. For mounting on the tubular door frame.

Material:
– Utility lectern: Polypropylene
– Mounting bracket: Die-cast zinc

Colour:
– Similar to RAL 7035

Supply includes:
– Wiring plan lectern (width 210 mm)
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**4120.000**

For door width mm	Required/possible number of wiring plan lecterns	
	min.	max.
400	1	1
500	1	1
600	2	2
800	2	3
1000	3	3

Storage box

For fixing to all flat, clean surfaces with double-sided adhesive tape. Secure storage of CDs/DVDs, small parts such as fuses etc.

Capacity:
– Max. 10 CDs/DVDs

Material:
– Polyamide

Colour:
– RAL 7035

Packs of	**Model No.**
1 pc(s).	**2446.000**

Wiring plan pocket, sheet steel

width-variable, for AX

For fastening to the perforated door strip at any height. Variable and easily adjustable in the width.

Depth: 35 mm

Colour:
– RAL 7035

Supply includes:
– Assembly screws

To fit door width mm	Clearance opening mm		**Model No.**
	Width	Height	
400, 500	325 – 425	210	**2515.200**
600	475 – 575	210	**2515.300**
760, 800	625 – 725	210	**2515.400**

Also required:

– For installation in AX stainless steel:
AX perforated door strip, stainless steel,
see page 953

Wiring plan pocket, sheet steel

for VX, VX SE, TP pedestal, PC
For fastening to tubular door frames at any height.

Colour:
– RAL 7035

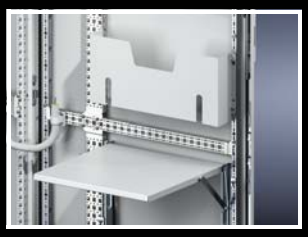
Supply includes:
– Assembly parts

D = 90 mm

To fit door width mm	Clearance opening mm		Model No.
	W	H	
400	255	210	**4114.000**
500	355	210	**4115.000**
600	455	210	**4116.000**
800	655	210	**4118.000**
900	755	210	**4123.000**
1000	855	210	**4124.000**

D = 35 mm

To fit door width mm	Clearance opening mm		Model No.
	W	H	
500	355	210	**4115.500**
600	455	210	**4116.500**
800	655	210	**4118.500**



Plastic wiring plan pocket

For adhering to surfaces.

Material:
– Polystyrene with self-adhesive fastening strips

Colour:
– Similar to RAL 7035

For format	Clearance opening mm			Model No.
	W	H	D	
A3 landscape	438	286	45	**2513.000**
A4 portrait	228	254	17	**2514.000**
A5 landscape	228	174	17	**2515.000**

Wiring plan pocket with transparent pouch

With welded-on transparent pouch and self-adhesive backing.

For format	Model No.
A4	**2510.000**
A3	**2512.000**

Door, internal

Door stay

To secure the door in the open position. May be fitted without machining the enclosure/housing.

Supply includes:
– Assembly parts

For	Mounting	Packs of	Model No.
VX	bottom	1 pc(s).	**8618.430**
VX SE, TP universal console, PC	bottom	5 pc(s).	**4583.000**
TP	top	2 pc(s).	**2519.200**
AX sheet steel AX stainless steel	top	1 pc(s).	**2519.010**

Also required:
– For installation in AX sheet steel: AX rail for interior installation in the appropriate depth, see page 989
– For installation in AX stainless steel: AX perforated door strip, stainless steel, see page 953

Door stay for escape routes

In an emergency situation, conventional door stays could block the escape route. The stay is activated automatically by pressure, releasing the door in both directions. In conjunction with 180° hinges, this ensures that no escape routes are blocked by open doors in the event of an emergency.

Supply includes:
– Assembly parts

For	Packs of	Model No.
1 VX	1 pc(s).	**8618.425**
2 VX SE, PC	1 pc(s).	**4583.500**

Accessories:
– 180° hinge, see page 951

Ride-up roller

for door VX, VX SE, PC
Lifts up the door when there is heavy installed equipment (e.g. cooling unit) as a closing aid. For attaching to the tubular door frame.

For	Packs of	Model No.
1 VX	10 pc(s).	**8618.420**
2 VX SE, PC	10 pc(s).	**4538.000**

Shipping brace

for door VX
To stabilise the door when transporting from an additional weight load of 15 kg.

Material:
– Plastic

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
10 pc(s).	**8618.410**

Transport and mounting handle

for doors VX, VX SE
For safe installation and removal of the door and during relocation in the workshop.

Packs of	Model No.
1 pc(s).	**2415.100**

Document clip, magnetic

For simple attachment of installation documentation as a reminder or for flexible accommodation of a wide range of documents, measurement records, test reports etc. May be attached to any magnet-compatible surface via a permanent magnet.

Material:
– Plastic

Colour:
– Clip: Transparent
– Handle pieces: Black

Packs of	Model No.
2 pc(s).	**7950.200**

Alternate frame, magnetic

For individual marking or labelling of the existing network infrastructure. The magnetic surface facilitates flexible mounting on all magnet compatible surfaces. Adhesive strips are supplied for non-magnetic surfaces. The maximum size of the labels is 130 x 50 mm.

Packs of	Model No.
10 pc(s).	**7950.150**

Roof

Outdoor housing

for compact enclosures AX

– For use outdoors
– For creating an enclosure-within-an-enclosure concept
– Cut-out at the bottom and integrated louvres in the side and base for optimum enclosure ventilation

Material:
– Aluminium AlMg3

Surface finish:
– Powder-coated

Note:
– Depending on the application/environment, a sheet steel or stainless steel enclosure may be built into the housing

Housing W x H x D mm	For AX enclosures W x H x D mm	Packs of	ModelNo.
421 x 550 x 308	300 x 400 x 210	1 pc(s).	**9792.055**
621 x 650 x 308	500 x 500 x 210	1 pc(s).	**9792.065**
721 x 750 x 448	600 x 600 x 350	1 pc(s).	**9792.075**

Also required:

– Wall mounting bracket for AX, sheet steel, see page 966
or wall mounting bracket for AX, stainless steel, see page 967

Accessories:

– Pole clamp, see page 968

Protective roof

for AX

The sloping protective roof reliably protects the enclosure from standing moisture and other soiling from above.

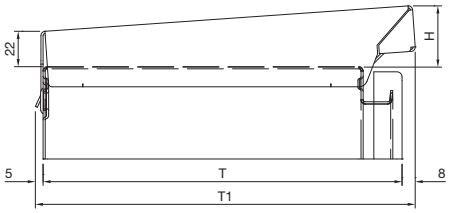
Material:
– Stainless steel 1.4301 (AISI 304)

Surface finish:
– Brushed, grain size 240

Supply includes:
– Assembly parts

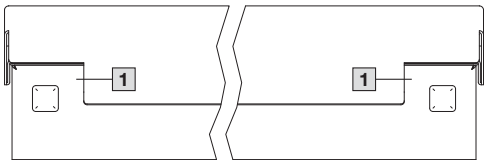
For		H mm	Model No.
Enclosure width mm	Enclosure depth T mm		
300	210	37	**2361.010**
380	210	37	**2472.010**
500	210	37	**2362.010**
600	210	37	**2473.010**
600	350	47	**2476.010**
760	300	43	**2474.010**
800	300	43	**2475.010**
1000	300	43	**2363.010**

Side view



T1 = Enclosure depth T + 13 mm

Rear view



1 Recess for wall mounting bracket

Dust guard trim

for AX, KX

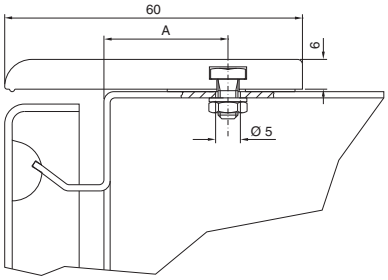
To protect against deposits on the upper edge of the door and between the enclosure and the door/cover. Cut the dust guard trim to length according to the enclosure width. Drill the enclosure and fit the dust guard trim using the adhesive strips and screws.

Material:
– Plastic, UV-resistant

Colour:
– Similar to RAL 7024

Supply includes:
– Assembly parts

For enclosure	Length mm	A mm	Model No.
AX	1200	21.5	**2426.500**
KX		21	



Dust guard trim

for VX, VX SE

To protect against dust deposits on the upper edge of the door and between the door and upper horizontal enclosure section. The dust guard trim provides space for texts or company logos.

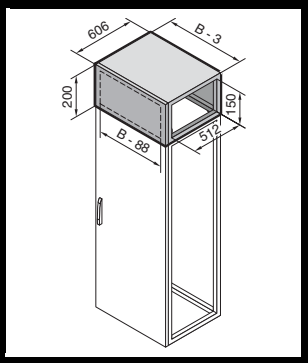
Colour:
– RAL 7035

Supply includes:
– Clear plastic strip for text labels (height 29.5 mm)
– Assembly parts

Length mm	Model No.
600	**2424.100**
800	**2425.100**
1000	**2427.100**
1200	**2426.100**

Note:
– Also suitable for use in conjunction with top baying cover, see page 915

Roof



Top-mounting module

As a cable chamber for cable infeed from above, or for power distribution with busbar systems across bayed enclosures. The cover plate supplied as standard is used to finish off at the top. The enclosure height is increased by 200 mm with the top-mounting module fitted. Installation accessories for top and bottom, see diagram and explanations below.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Spray-finished, textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

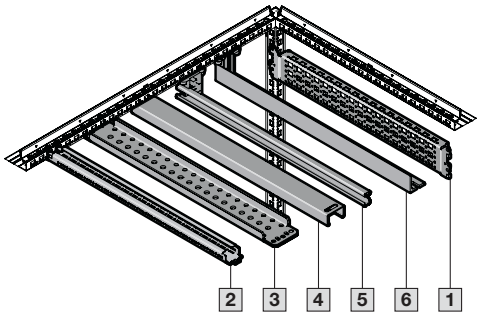
Protection category NEMA:
– NEMA 12

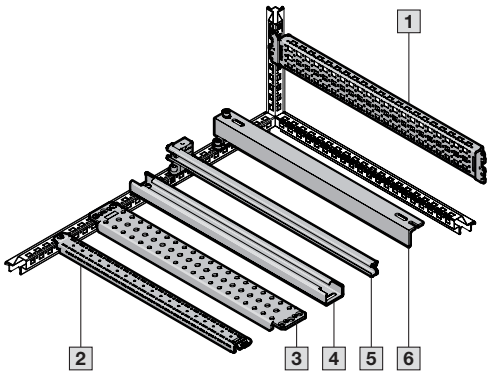
For enclosures		Packs of	Model No.
Width (B) mm	Depth mm		
600	600	1 pc(s).	**8618.501**
800	600	1 pc(s).	**8618.511**
1000	600	1 pc(s).	**8618.521**
1200	600	1 pc(s).	**8618.531**

Supply includes:
– 1 frame module
– 2 trim panels (front and rear)
– 8 retainers with automatic potential equalisation
– Assembly parts

! Also required:

– Side panel for top-mounting module 8618.541, see page 960





+ Accessories:

Description	Page
1 Punched section with mounting flange 23 x 64 mm (for the inner level)	991
2 Punched rail 18 x 39 mm	993
3 Support rail 75 x 20 mm	996
4 Support rail 48 x 26 mm	996
5 C rail 30/15	996
6 Cable clamp rail	1059

Side panel

for top-mounting module
To finish off the side of a top-mounting module or bayed suite.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Spray-finished, textured paint

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**8618.541**

Roof plate IP 55, solid

for VX, VX IT
For enclosures without roof plate and in exchange for the standard roof.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Textured paint

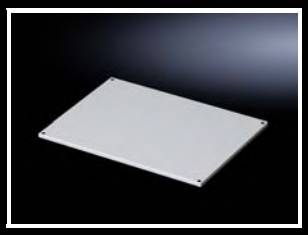
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Assembly parts

For enclosures		Packs of	Model No.
Width mm	Depth mm		
400	600	1 pc(s).	**9681.646**
400	800	1 pc(s).	**9681.648**
600	600	1 pc(s).	**9681.666**
600	800	1 pc(s).	**9681.668**
600	1000	1 pc(s).	**9681.660**
600	1200	1 pc(s).	**9681.662**
800	600	1 pc(s).	**9681.686**
800	800	1 pc(s).	**9681.688**
800	1000	1 pc(s).	**9681.680**
800	1200	1 pc(s).	**9681.682**

Accessories:
– Pressure stoppers, see page 962
– Eyebolt, see page 964



Roof plate IP 2X with ventilation hole

for VX, VX IT
For enclosures without roof plate and in exchange for the standard roof.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Textured paint

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 2X

Supply includes:
– Assembly parts

For enclosures		Build height mm	Packs of	Model No.
Width mm	Depth mm			
400	600	72	1 pc(s).	**9681.846**
400	800	72	1 pc(s).	**9681.848**
600	600	72	1 pc(s).	**9681.866**
600	800	72	1 pc(s).	**9681.868**
800	600	72	1 pc(s).	**9681.886**
800	800	72	1 pc(s).	**9681.888**
1000	600	72	1 pc(s).	**9681.806**
1000	800	72	1 pc(s).	**9681.808**
1200	600	72	1 pc(s).	**9681.826**
1200	800	72	1 pc(s).	**9681.828**

Roof plate for cable entry glands

for VX, VX IT
For enclosures without roof plate and in exchange for the standard roof.

Material:
– Sheet steel, 1.5 mm

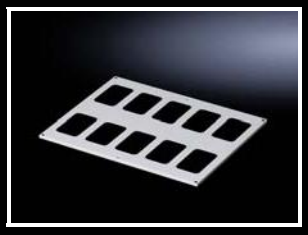
Surface finish:
– Textured paint

Colour:
– RAL 7035

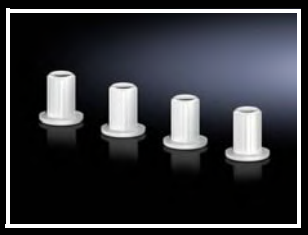
Supply includes:
– Assembly parts

For enclosures		Required no. of glands	Packs of	Model No.
Width mm	Depth mm			
400	600	3	1 pc(s).	**9681.546**
400	800	4	1 pc(s).	**9681.548**
600	400	2	1 pc(s).	**9681.564**
600	600	4	1 pc(s).	**9681.566**
600	800	8	1 pc(s).	**9681.568**
800	600	8	1 pc(s).	**9681.586**
800	800	8	1 pc(s).	**9681.588**
850	400	3	1 pc(s).	**9681.594**
850	600	6	1 pc(s).	**9681.596**
1100	400	4	1 pc(s).	**9681.514**
1100	600	8	1 pc(s).	**9681.516**

Also required:
– Cable entry gland, see page 962
– Eyebolt, see page 964



Roof



Pressure stoppers

for roof plate
For converting the IP 55 roof plate into a roof plate with pressure relief function. The pressure relief function is essential for compliance with health and safety regulations for arc-proofing to IEC/TR 61 641. After fitting the pressure stopper, a protection category of IP 54 is achieved.

Material:
– Polyamide

Supply includes:
– 2 warning stickers

Note:
– 2 pressure stoppers and 1 warning sticker are required for one roof plate
– The arc-proofing compliance limits are dependent on the busbar system used

Packs of	**Model No.**
4 pc(s).	**9674.790**

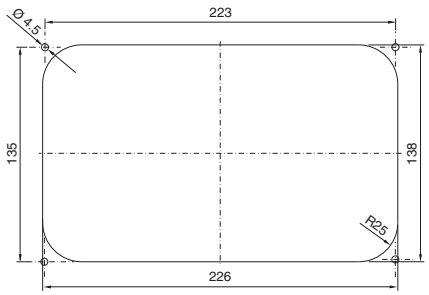
Cable entry gland

for roof plate
For simple, secure cable entry in the roof zone.

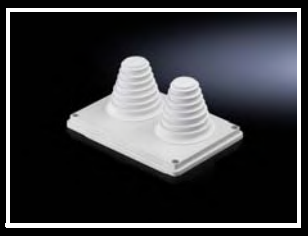
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Seal



Cut-out dimensions for 9665.750 to 9665.785



Version	Material	Width mm	Depth mm	Packs of	**Model No.**
14 x M25/32	Insulating material	250	160	1 pc(s).	**9665.750**
2 x M25/32/40, 1 x M32/40/50, 2 x M40/50/63	Insulating material	250	160	1 pc(s).	**9665.760**
With sealing membranes 32 x Ø 7 – 16 mm, 4 x Ø 10 – 20 mm, 3 x Ø 14 – 26 mm	Insulating material	250	160	1 pc(s).	**9665.770**
With entry fittings up to Ø 66 mm	Insulating material	250	160	1 pc(s).	**9665.780**
Solid	Sheet steel, spray-finished	250	160	4 pc(s).	**9665.785**

Roof

Roof plate, two-piece

for cable entry
for VX, VX IT
In exchange for the standard roof. Equipped with a sliding angular bracket in the rear section. Rubber cable clamp strip on both sides for attaching cable bundles and bunched cables.
Due to the symmetrical design of the VX frame, side cable entry can also be achieved by rotating the roof plate. The two-piece design allows convenient retrofitting.

Material:
– Sheet steel

Colour:
– RAL 7035

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	1 pc(s).	**7826.665**
600	800	1 pc(s).	**7826.685**
600	1000	1 pc(s).	**7826.605**
800	600	1 pc(s).	**7826.865**
800	800	1 pc(s).	**7826.885**
800	1000	1 pc(s).	**7826.805**
800	1200	1 pc(s).	**7826.825**

Protection category IP to IEC 60 529:
– IP 20

Supply includes:
– Assembly parts

Brush kit for cable entry in the roof

for TE
For cable entry in the roof plate.

Benefits:
– For simple top-mounting on the cut-out edge

Material:
– Plastic support with brushes
– Brush strip: Plastic UL 94-V0
– Bristles: Plastic UL 94-HB

For enclosure width mm	Bristle length mm	Width mm	Length mm	Packs of	Model No.
600	30	19	390	2 pc(s).	**7888.610**
800	30	19	590	2 pc(s).	**7888.612**

Cable organiser

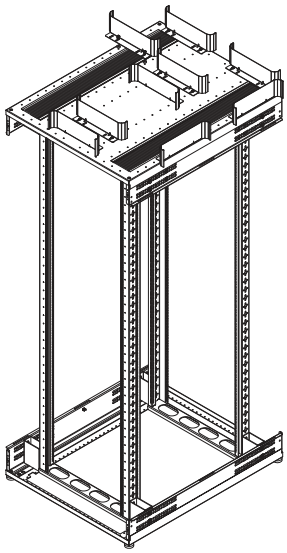
for TE open
Cable routing plate for targeted routing of cables.

Applications:
– Optionally on the roof plate of the TE open

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Packs of	Model No.
4 pc(s).	**7888.950**



Roof

Spacers

for roof plate
To raise the roof for ventilation purposes, in three different heights.

Thread: M12

Material:
– Hexagonal sectional steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Height mm	Packs of	Model No.
10	4 pc(s).	**2422.000**
20	4 pc(s).	**2423.000**
50	4 pc(s).	**7967.000**

Eyebolt

for VX, VX SE
For transporting enclosures by crane.

Thread: M12

Supply includes:
– 4 eyebolts M12
– 4 serrated sealing washers A 12.5

Material	Packs of	Model No.
Sheet steel, zinc-plated, C 15E	4 pc(s).	**4568.000**
Stainless steel 1.4301 (AISI 304)	4 pc(s).	**4568.500**

Eyebolt

for AX
For crane transportation of enclosures, with reinforcement plate to be inserted underneath.

Thread: M12

Supply includes:
– 2 eyebolts
– 2 reinforcement plates

Packs of	Model No.
2 pc(s).	**2509.010**

Wall mounting bracket

for AX sheet steel, KX sheet steel, AX IT, EL
For the attachment of sheet steel enclosures.

Benefits:
– Screw-fastened directly from the rear with a self-tapping screw in the enclosure eyelet

Supply includes:
– Assembly parts

Material	Wall distance mm	Packs of	**Model No.**
Sheet steel, zinc-plated	10	4 pc(s).	**1590.010**

Wall mounting bracket

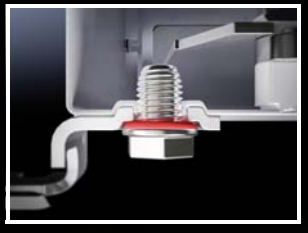
for AX stainless steel, KX stainless steel, stainless steel switch housing
For the attachment of stainless steel enclosures.

Supply includes:
– Assembly parts

Note:
– For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting bracket.

Material	Wall distance mm	Packs of	**Model No.**
Stainless steel 1.4301 (AISI 304)	10	4 pc(s).	**1594.010**

Wall mounting



Wall mounting bracket

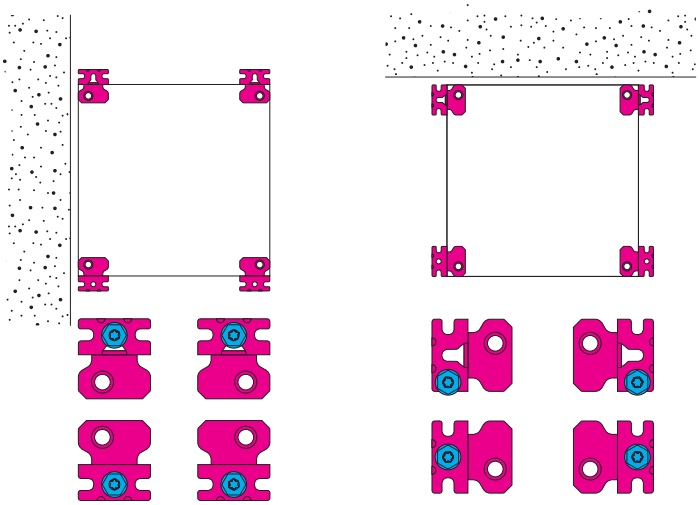
for AX sheet steel, KX sheet steel, AX IT, EL
Ideal for convenient one-person assembly of wall-mounted enclosures, even in confined spaces.

Benefits:
- Screw-fastened directly from the rear with a self-tapping screw in the enclosure eyelet
- Simply suspend the wall mounting bracket 2508.020, which is equipped with an additional suspension contour, from a screw in the wall
- Different mounting positions allow the wall mounting bracket to be tailored to local conditions on site
- If necessary, the support may be finished with a stylish cover cap
- Additional option of attaching with a nut for dynamic applications

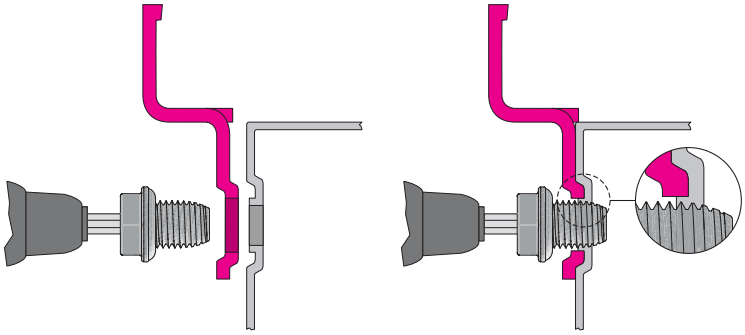
Supply includes:
- Wall mounting bracket
- Cover cap
- Assembly parts

Material	Wall distance mm	Packs of	Model No.
Sheet steel, zinc-plated	20	4 pc(s).	**2508.020**
	40	4 pc(s).	**2503.020**

Sample applications



Attachment with self-tapping screw



Wall mounting bracket

for AX stainless steel, KX stainless steel
For the attachment of AX and KX stainless steel enclosures.

Benefits:
- Simply suspend the wall-mounted bracket from a screw in the wall
- Different mounting positions allow the wall mounting bracket to be tailored to local conditions on site
- If necessary, the support may be finished with a stylish cover cap

Supply includes:
- Wall mounting bracket
- Cover cap
- Assembly parts

Note:
- For hygiene reasons, and in view of the protection category, the stainless steel enclosures do not have any drilled holes for the wall mounting brackets

Material	Wall distance mm	Packs of	Model No.
Stainless steel 1.4301 (AISI 304)	20	4 pc(s).	**2433.010**
Stainless steel 1.4404 (AISI 316L)	20	4 pc(s).	**2433.510**

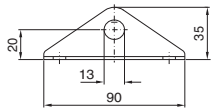
Wall angle

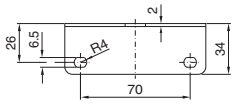
for AX, KX, AX IT
For the attachment of sheet steel and stainless steel enclosures.

Supply includes:
- Assembly parts for mounting on the enclosure

Note:
- Additional holes required in the enclosure

Material	Colour	Packs of	Model No.
Sheet steel	RAL 7035	4 pc(s).	**2505.510**
Stainless steel 1.4301 (AISI 304)	–	4 pc(s).	**2583.010**





Wall bracket

for VX, VX SE, VX IT
For attaching enclosures with a shallow depth and e.g. heavy components on the door or a built-in swing frame, to a wall at the top.

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Packs of	Model No.
4 pc(s).	**4595.000**

Wall mounting

Pole clamp

for AX, KX, AX plastic, AX IT
For reliable, convenient fastening to round or square poles.

For pole diameter / size:
– Ø from 40 to 170 mm
– □ from 50 to 150 mm

Material:
– Mounting angles, clamping section: Sheet steel
– Clamping strap: Stainless steel 1.4301 (AISI 304)

Surface finish:
– Mounting angle, clamping section: Zinc-plated

Supply includes:
– 2 mounting angles, 600 mm long
– 4 clamping sections
– 2 clamping straps
– 4 clamping brackets
– Assembly parts

Packs of	Model No.
2 pc(s).	**2584.100**

Note:
– The pole clamp cannot be used in conjunction with a protective roof for AX

Enclosure connectors

Adjustable
Between command panels, terminal boxes, compact enclosures and horizontal or vertical surfaces. Pre-mount the connector halves on both sides, screw together and secure with a locking screw, and/or adjust the angle of rotation.

Rotation range:
– ±105° adjustable in 7.5° stepped increments

Material:
– Die-cast zinc

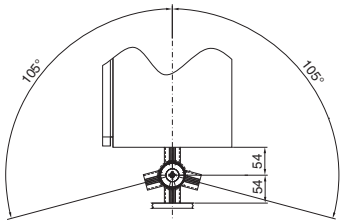
Surface finish:
– Powder-coated

Colour:
– RAL 7035

Supply includes:
– Assembly parts for both sides

Packs of	Model No.
2 pc(s).	**6016.200**

Note:
– The locking screws may be exchanged for standard, commercially available clamping levers (M10 x 50 mm)



Frame connector, adjustable

for Comfort Panel
Between the command panel and keyboard housing and horizontal or vertical surfaces.

Rotation range:
– Adjustable in 8° stepped increments, see drawing

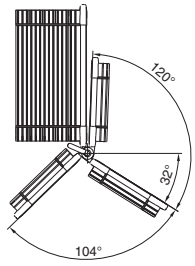
Material:
– Die-cast zinc

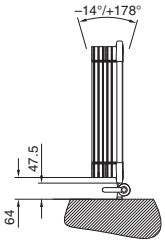
Surface finish:
– Powder-coated

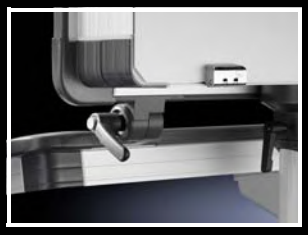
Colour:
– RAL 7024

Supply includes:
– Assembly parts and clamping levers for both sides

Packs of	Model No.
2 pc(s).	**6005.500**







Wall mounting

Vertically hinged
Between the Compact Panel and horizontal or vertical surfaces.

Rotation range:
– 180° adjustable on a 7.2° pitch pattern

Material:
– Wall mounting: Sheet steel
– Knurled screw: Steel with plastic knurled handle

Supply includes:
– Knurled screw and assembly parts for mounting on the Compact Panel

Packs of	Model No.
2 pc(s).	**6341.000**

Mounting plates

Mounting plate

for terminal boxes KX, bus enclosures KX, terminal boxes HD, Ex enclosures
For component installation outside of the enclosure. Assembly screws included as accessories with the enclosure.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Accessories:
– Self-tapping screws 2487.000, see page 1004

Possible alternative:
– Support rail, see page 997

For size mm	For Model No.	Model No.
150 x 150	1500.000, 1514.000, 1560.000, 1564.000, 1670.600, 1671.600, 9301.000	**1560.800**
200 x 150	1528.000, 1529.000	**1575.800**
300 x 150	1501.000, 1515.000, 1530.000, 1561.000, 9302.000	**1561.800**
400 x 150	1589.000	**1576.800**
200 x 200	1502.000, 1516.000, 1562.000, 1565.000, 1672.600, 9303.000	**1562.800**
300 x 200	1503.000, 1517.000, 1531.000, 1563.000, 1566.000, 1674.600, 1583.000, 9304.000	**1563.800**
400 x 200	1504.000, 1518.000, 1532.000, 1568.000, 1585.000, 1610.000, 1675.600, 9305.000	**1564.800**
500 x 200	1505.000, 1533.000	**1565.800**
600 x 200	1506.000, 1586.000	**1566.800**
800 x 200	1527.000	**1574.800**
300 x 300	1507.000, 1535.000, 1567.000, 9306.000	**1567.800**
400 x 300	1508.000, 1536.000, 1569.000, 1611.000, 1676.600	**1568.800**
500 x 300	1509.000, 1537.000	**1569.800**
600 x 300	1510.000, 1538.000, 1612.000	**1570.800**
800 x 300	1613.000	**1570.810**
400 x 400	1511.000, 1539.000	**1571.800**
600 x 400	1512.000, 1540.000	**1572.800**
800 x 400	1513.000, 1541.000	**1573.800**

Mounting plate infill

for VX

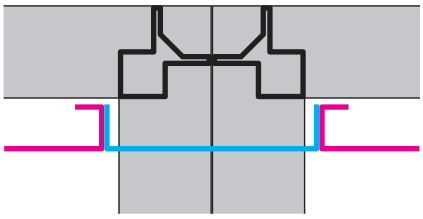
For a continuous mounting surface in bayed suites where the mounting plate is set forward.

Material:
– Sheet steel, 2 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure height mm	Packs of	Model No.
1800	1 pc(s).	**4590.700**
2000	1 pc(s).	**4591.700**
2200	1 pc(s).	**4592.700**

Detail	Mounting position of mounting plate	Benefits
	Set forward from the enclosure frame on a 25 mm pitch pattern Position: -25 mm -50 mm -75 mm etc.	The usable mounting width is enlarged by up to 25%, depending on the enclosure selection.

Mounting plate attachment

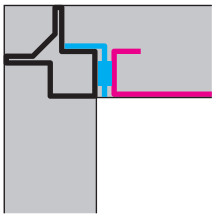
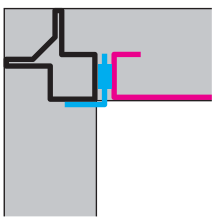
Type A, for VX

To reduce vibrations in the mounting plate, e.g. in dynamic applications and when transporting with heavy assemblies. Simple mounting directly on the enclosure frame. During installation, the mounting plate latches automatically into the mounting plate attachment. The mounting plate attachment type A keeps the front of the mounting plate completely free for unrestricted use. Populated mounting plates may be mounted from the front without dismantling the rear panel.

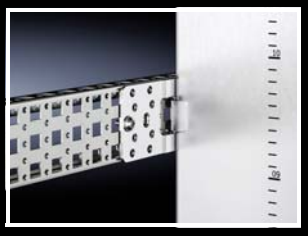
Packs of	Model No.
5 pc(s).	**8617.353**

Material:
– Spring steel

Supply includes:
– Safety clip
– Assembly parts

Detail	Mounting position of mounting plate	Installation option	Attachment to the mounting plate
	Flush with the enclosure frame Position: ± 0 mm, fitted at the rear	Fitted on the left and right of the mounting plate	Latched home
	Flush with the enclosure frame Position: ± 0 mm, fitted at the front	Fitted on the left and right of the mounting plate at half height	Latched home

Mounting plates



Mounting plate attachment

Type B, for VX

To reduce vibrations in the mounting plate, e.g. in dynamic applications and when transporting with heavy assemblies. Simple mounting directly on the enclosure frame or on the punched section with mounting flange 23 x 64 mm. The mounting plate may optionally be screw-fastened with the mounting plate attachment, or form-fit connected. Depending on the installation situation, the mounting plate attachment type B either minimally surrounds the mounting plate, or keeps the front of the mounting plate completely free for unrestricted use. May be mounted from the front or the rear, depending on the situation.

Packs of	Model No.
10 pc(s).	**8617.351**

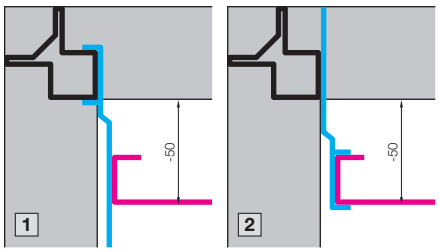
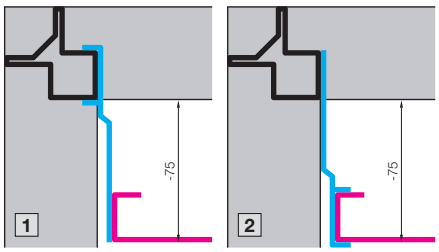
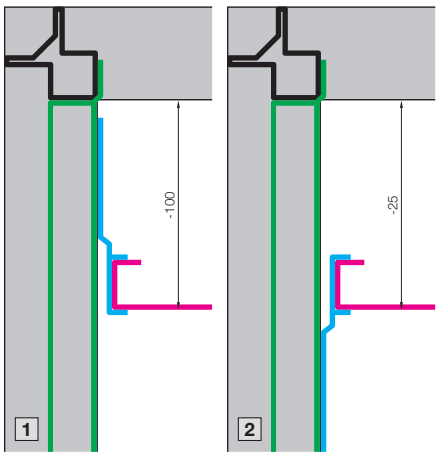
Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

Supply includes:
– Assembly parts

Accessories:

– Punched section with mounting flange 23 x 64 mm for the inner level, see page 991

Detail	Mounting position of mounting plate	Installation option	Attachment to the mounting plate
	Set forward from the enclosure frame Position: -50 mm	1 2 pc(s). per enclosure/ mounting plate, at the side, half-way up the mounting plate	Screw-fastened
	Set forward from the enclosure frame Position: -50 mm	2 All-round between the enclosure and mounting plate in any quantity	Connected
	Set forward from the enclosure frame Position: -75 mm	1 2 pc(s). per enclosure/ mounting plate, at the side, half-way up the mounting plate	Screw-fastened
	Set forward from the enclosure frame Position: -75 mm	2 All-round between the enclosure and mounting plate in any quantity	Connected
	Set forward from the enclosure frame 1 Position: -100 mm or larger 2 Position: -25 mm or larger	All-round between the enclosure and mounting plate in any quantity. One punched section with mounting flange 23 x 64 mm to match the enclosure depth is required for each mounting plate attachment.	Connected

Mounting plate attachment

Type C, for VX

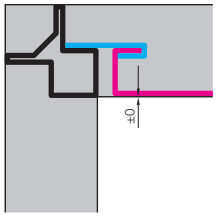
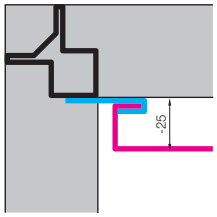
To reduce vibrations in the mounting plate, e.g. in dynamic applications and when transporting with heavy assemblies. Simple mounting directly on the enclosure frame. The mounting plate may be form-fit connected and clamped with the mounting plate attachment. The mounting plate attachment type C keeps the front of the mounting plate completely free for unrestricted use. With the mounting plate installed and the rear panel dismantled, it can be fitted from the rear.

Packs of	**Model No.**
10 pc(s).	**8617.352**

Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

Supply includes:
– Assembly parts

Detail	Mounting position of mounting plate	Installation option	Attachment to the mounting plate
	Flush with the enclosure frame Position: ± 0 mm	All-round between the enclosure and mounting plate in any quantity	Connected, clamped
	Set forward from the enclosure frame Position: -25 mm	All-round between the enclosure and mounting plate in any quantity	Connected, clamped

VX installation kit

for back-to-back mounting plates

The minimum spacing between the mounting plates facilitates maximum assemblies on both mounting plates.

Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

Packs of	**Model No.**
1 pc(s).	**8617.360**

Also required:

– Second mounting plate, to fit the enclosure dimensions, refer to Rittal list of spares at www.rittal.com

Accessories:

– For enclosures with a rear panel, following may be used for optimum access to the rear mounting plate:
Glazed door instead of rear panel, see page 917
Lockable and adjacent door 8618.120, for enclosure dimensions W x H = 800 x 2000 mm, see page 917

Mounting plates

Multi-function mounting kit VX

for mounting plate

For installing the mounting plate from the rear of the enclosure
– Mounting position flush with the enclosure frame, position ± 0 mm
– The mounting plate is removable from the front and rear for servicing
– For 20 mm more installation depth in the enclosure
– Mounting position set back behind the enclosure frame, position ±20 mm

For additional screw-fastening of the mounting plate
– For all mounting positions

Packs of	Model No.
1 pc(s).	**8617.370**

Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

Supply includes:
– Assembly parts

Slide rail

for mounting plates, for VX, VX SE
For sliding the mounting plate in from the side. For mounting in a set-forward position.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8617.400**
800	2 pc(s).	**8617.401**
1200	2 pc(s).	**8617.402**

Cross-brace

for mounting plates, for VX, VX SE
Additional horizontal rigidity for vibration damping and/or retrospective stabilisation of wide mounting plates. This brace may also be used as an attachment aid for heavy components.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 2 sections
– 4 clamping sections
– 4 grub screws M10 x 16 mm

For enclosure width mm	Model No.
1200	**4333.120**
1600	**4333.160**
1800	**4333.180**

Partial mounting plate VX

for VX, VX SE, PC, IW

To accommodate additional components inside the enclosure. Partial mounting plates are extremely versatile, providing a platform for a diverse range of applications.
For optional installation either upright as a vertical mounting surface, or flat as a horizontal base. For attachment either directly to the enclosure section or, with a set-forward construction, for example, to any mounting level in the enclosure using punched sections with mounting flanges. For multi-level installation one behind the other, partial mounting plates may be vertically hinged, via hinge attachment 8617.650, to allow rapid access to the levels behind.

Material:
– Sheet steel, 2.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– Depending on the mounting situation, additional parts such as punched sections with mounting flanges may be required, see installation example on page 976

Also required:
– For the installation in VX SE, PC, IW: Adaptor rail VX, see page 995

Accessories:
– Punched section with mounting flange 18 x 64 mm for the outer level, see page 990
– Punched section with mounting flange 23 x 64 mm for the inner level, see page 991
– Hinge attachment 8617.650, see page 977

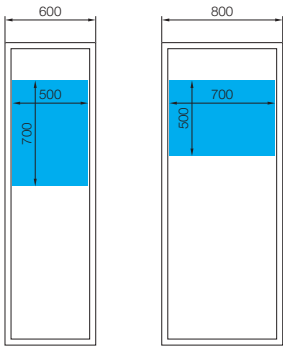
Installation examples:
See page 976

For installation in									Door width mm	Dimensions mm	Packs of	Model No.
Enclosure width mm					Enclosure depth (side) mm							
400	600	800	1000	1200	400	500	600	800				
■	■	–	–	–	■	–	■	–	600	500 x 300	1 pc(s).	**8617.510**
–	■	–	–	–	–	■	■	–	600	500 x 400	1 pc(s).	**8617.520**
–	■	–	–	–	–	–	■	–	600	500 x 500	1 pc(s).	**8617.530**
–	■	■	–	–	–	–	■	■	600	500 x 700	1 pc(s).	**8617.540**
–	■	–	–	–	–	–	■	–	600	500 x 775	1 pc(s).	**8617.550**
■	–	■	–	–	■	–	–	■	800	700 x 300	1 pc(s).	**8617.560**
–	–	■	–	–	–	■	–	■	800	700 x 400	1 pc(s).	**8617.570**
–	–	■	–	–	–	–	–	■	800	700 x 700	1 pc(s).	**8617.580**
■	–	–	■	–	■	–	–	–	1000	900 x 300	1 pc(s).	**8617.590**
–	–	–	■	–	–	■	–	–	1000	900 x 400	1 pc(s).	**8617.600**
–	■	–	■	–	–	–	■	–	1000	900 x 500	1 pc(s).	**8617.610**
■	–	–	–	■	■	–	–	–	–	1100 x 300	1 pc(s).	**8617.620**
–	–	–	–	■	–	■	–	–	–	1100 x 400	1 pc(s).	**8617.630**
–	■	–	–	■	–	–	■	–	–	1100 x 500	1 pc(s).	**8617.640**

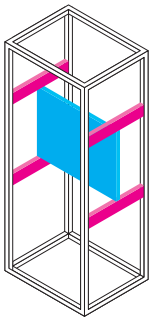
Mounting plates

Partial mounting plates VX, installation examples

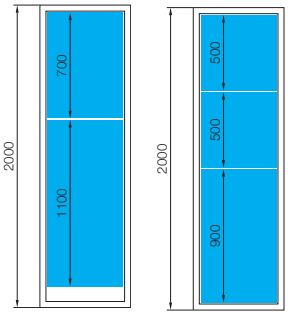
Full installation in the width/depth
Choose a partial mounting plate 100 mm smaller than the nominal size of the enclosure.
For example, a partial mounting plate with dimensions 500 x 700 mm can be installed in enclosures with nominal dimensions of 600 and 800 mm.



Full installation, set forward in the width/depth
For set-forward installation, punched sections with mounting flanges are required for the inner or outer mounting level, according to the enclosure depth.



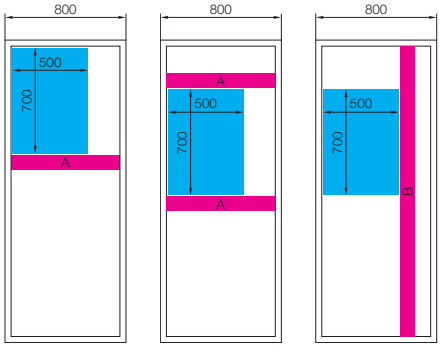
Full installation in the height
The sum total of partial mounting plates 100 mm should be smaller than the nominal size of the enclosure. For example, in a 2000 mm high enclosure, the sum total of partial mounting plates should not exceed 1900 mm.



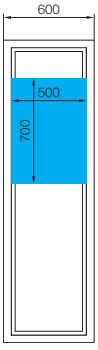
Partial installation

Also required:

- Punched section with mounting flange 23 x 64 mm **(A)** to match the enclosure width or depth, see page 991
- Punched section with mounting flange 23 x 64 mm **(B)** to match the enclosure height, see page 991



Door installation
Choose a partial mounting plate 100 mm smaller than the nominal size of the enclosure.
For example, a partial mounting plate with dimensions 500 x 700 mm can be installed on the tubular door frame of enclosures with a nominal size of 600 mm.



Hinge attachment

for partial mounting plate VX

In conjunction with the mounting kit for swing frames, small, the partial mounting plate VX can be hinged to allow access to the components behind it for servicing.

Installation options:
- At the front, on the frame section
- Set back, in the enclosure depth
- At the side, in conjunction with the hinged side panel

Material:
- Steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

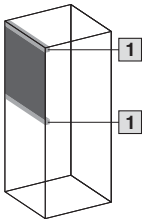
Packs of	Model No.
1 pc(s).	**8617.650**

Also required:
- Installation kit for swing frame, small, for enclosure width 600 mm (8619.600) or 800 mm (8619.610), see page 1076
- Punched section with mounting flange 23 x 64 mm according to the enclosure depth, see page 991

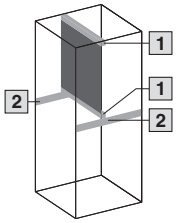
Examples

In the highest or lowest position

Front

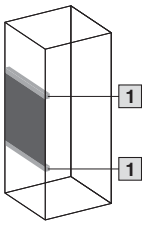


Set back

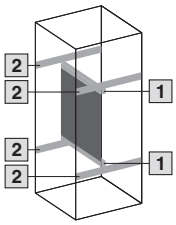


In a central position

Front



Set back



1 Installation kit for swing frame, small

2 Punched section with mounting flange 23 x 64 mm in accordance with the enclosure depth

Mounting plates

Partial mounting plate holder

for partial mounting plate VX

The partial mounting plate may be fitted set back by 20 mm behind the enclosure frame using the partial mounting plate holder, and also fastened directly to the frame from the outside. The partial mounting plate is also removable from the inside for servicing.

Material:
– Sheet steel

Surface finish:
– Zinc-plated, passivated

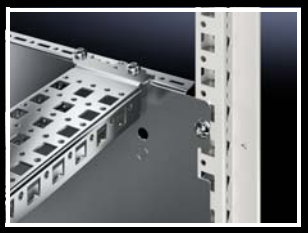
Supply includes:
– Assembly parts

Packs of	**Model No.**
4 pc(s).	**8617.655**

Partial mounting plate VX

Provides flexible and individual interior installation,
see page 980

Mounting plates



Partial mounting plate VX

for VX, VX SE

To accommodate additional components inside the enclosure. Partial mounting plates are extremely versatile, providing a platform for a diverse range of applications. They are attached directly to the enclosure section. For individual interior installation, system punchings are additionally provided in the edge fold.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

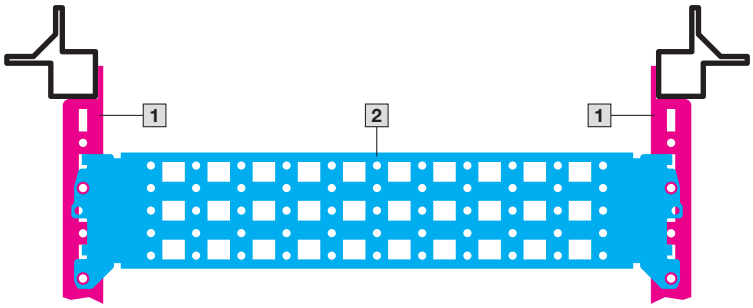
Dimensions mm	Packs of	Model No.
500 x 400	1 pc(s).	**8617.660**
500 x 600	1 pc(s).	**8617.661**
600 x 400	1 pc(s).	**8617.662**
600 x 600	1 pc(s).	**8617.663**
800 x 400	1 pc(s).	**8617.664**
800 x 600	1 pc(s).	**8617.665**

Also required:

– For the installation in VX SE: Adaptor rail VX, see page 995

Outer mounting level

Inner mounting level



1 Partial assembly plate
2 Punched section with mounting flange, 23 x 64 mm

Transport handle

for mounting plate,
for VX, VX SE
For use at any given position in the side C-fold.
Benefits include:
– Adapts to users of different heights
– Optimised force transmission
– Simple handling

Packs of	Model No.
2 pc(s).	**2415.500**

Mounting plate

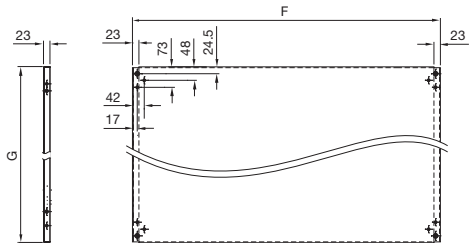
for Outdoor Basic enclosure
For the configuration of mounting levels.
The mounting plates are depth-adjustable on a 25 mm pitch pattern.

Material:
– Aluminium, 3 mm

Supply includes:
– Assembly parts

Note:
– For an enclosure width of 1200 mm, partial installation with one or two 600 mm wide mounting plates is possible

For enclosure		F mm	G mm	Model No.
Width mm	Height mm			
600	1200	499	1096	**9765.092**
800	1200	699	1096	**9765.095**
1200	1200	1099	1096	**9765.191**



Mounting plate attachment

for TP one-piece console, TP pedestal
for high dynamic loads
To reduce vibrations in the mounting plate.

Applications:
– During transportation with heavy assemblies
– For dynamic applications, if a direct connection between the mounting plate and the enclosure is required for mobile use (e.g. with accompanying enclosures in crane systems, etc.)

Tested as per DIN EN 60 721
Severity 3 M4, with a weight of 150 kg evenly distributed over the mounting plate.

Simply screw-fasten to the existing holes in the mounting plate to pre-assemble for:

1 **Wall mounting from the inside**
Direct using a bracket and wall / support mounted enclosure.

2 **Wall mounting from the outside**
Screws for wall mounting brackets can easily be screwed into the square nut from the outside

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**5001.075**

Mounting plates

Partial mounting plate, locatable

for TP

For installation in
- Console and desk unit on the interior installation system rails
- Punched sections with mounting flanges or support strips fitted to the side of the pedestal in the depth

For easy mounting on pre-fitted assembly screws. Bayable by screw-fastening at the sides.

Material:
- Sheet steel

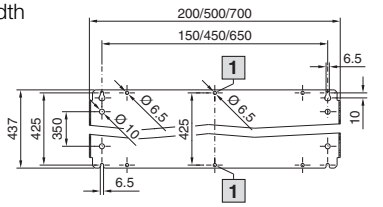
Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

Width mm	Height mm	Packs of	**Model No.**
200	437	1 pc(s).	**6730.310**
500	437	1 pc(s).	**6730.330**
700	437	1 pc(s).	**6730.340**

For console/desk unit width mm	Max. partial mounting plates that may be installed
600	1 x 6730.330
800	1 x 6730.340
1200	2 x 6730.310 1 x 6730.340
1600	1 x 6730.330 1 x 6730.340

[1] From width 500 mm

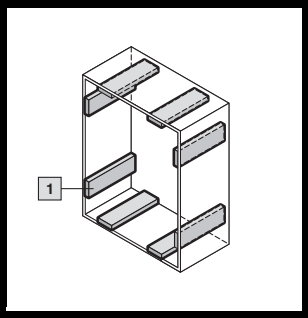


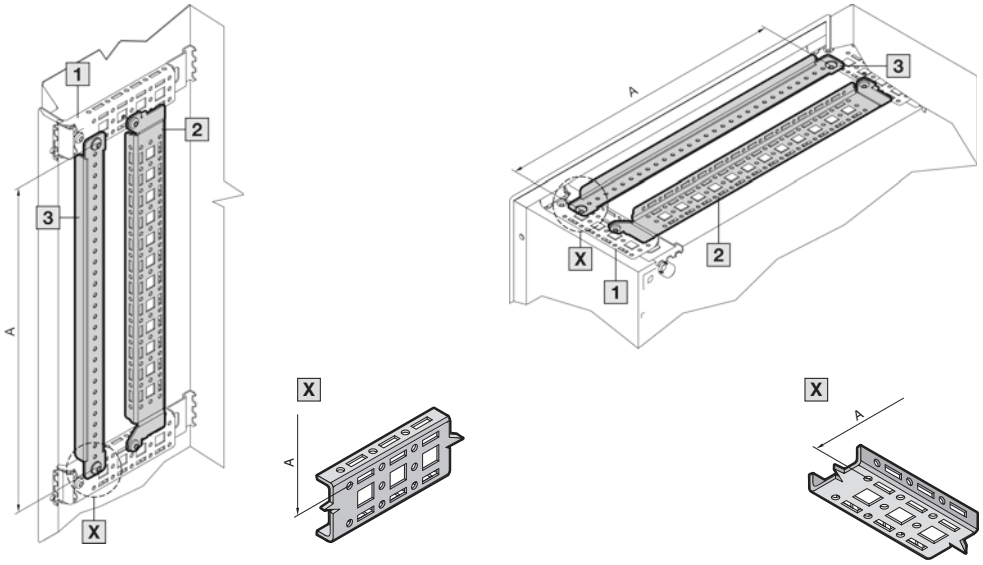
AX installation examples with system rails

Preparing for installation							
1 Rail for interior installation AX	Packs of	For enclosure depth mm					Page
		210	250	300	350	400	
Model No.	4 pc(s).	2393.210	2393.250	2393.300	2393.350	2393.400	989

Installation of support strip and punched section with mounting flange 14 x 39 mm in enclosure height/width							
For enclosure height/width mm	A[1] mm	2 Punched section with mounting flange, 14 x 39 mm		Page	3 Support strip		Page
		Packs of	**Model No.**		Packs of	**Model No.**	
400	275	4 pc(s).	8619.700	990	20 pc(s).	4594.000	994
500	375	4 pc(s).	8619.710		20 pc(s).	4309.000	
600	475	4 pc(s).	8619.720		20 pc(s).	4596.000	
700	575	4 pc(s).	8619.760		20 pc(s).	8800.130	
760	635	4 pc(s).	8619.790		20 pc(s).	–	
800	675	4 pc(s).	8619.730		20 pc(s).	4598.000	
1000	875	4 pc(s).	8619.750		20 pc(s).	4599.000	
1200	1075	4 pc(s).	8619.770		20 pc(s).	–	
1,400	1275	4 pc(s).	8619.780		20 pc(s).	–	

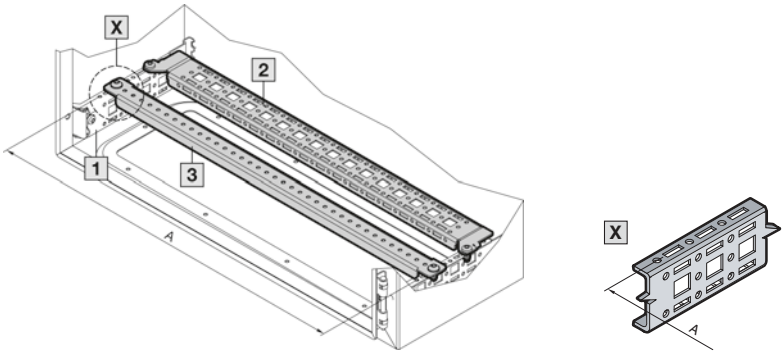
[1] A = Rail mounting distance

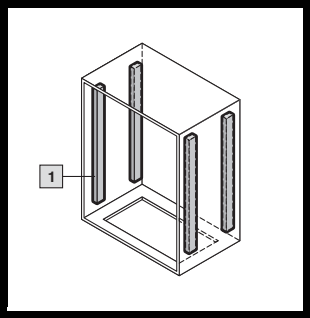




Installation of support strip and punched section with mounting flange 14 x 39 mm in enclosure width							
For enclosure width mm	A[1] mm	2 Punched section with mounting flange, 14 x 39 mm		Page	3 Support strip		Page
		Packs of	**Model No.**		Packs of	**Model No.**	
300	275	4 pc(s).	8619.700	990	20 pc(s).	4594.000	994
400	375	4 pc(s).	8619.710		20 pc(s).	4309.000	
500	475	4 pc(s).	8619.720		20 pc(s).	4596.000	
600	575	4 pc(s).	8619.760		20 pc(s).	8800.130	
700	675	4 pc(s).	8619.730		20 pc(s).	4598.000	
800	775	4 pc(s).	8619.740		20 pc(s).	4579.000	

[1] A = Rail mounting distance





TP pedestal/one-piece console
Installation examples with system rails

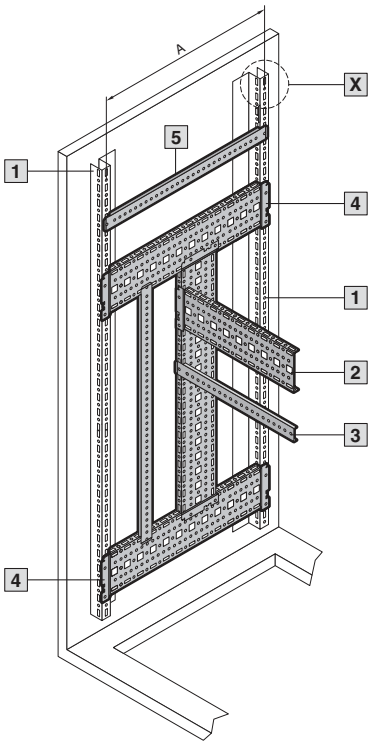
Preparing for installation				
1 Rail for interior installation	Packs of	For enclosure height mm		Page
		675	960	
Model No.	4 pc(s).	5001.050	5001.051	995

Installation in the width							
	Packs of	**Model No.**					
For enclosure width mm		600	800	1000	1200	1600	
A[1] mm		575	775	975	1175	1575	
1 Punched section with mounting flange, 17 x 73 mm	4 pc(s).	8612.060	–	–	–	–	992
3 Support strip	20 pc(s).	8800.130	4579.000	–	–	–	994

Installation in the depth									
	For enclosure depth mm	A[1] mm	Packs of	**Model No.**					
4 Punched section with mounting flange 17 x 73 mm	400	325	4 pc(s).	8612.140	8612.140	8612.140	8612.140	8612.140	992
	500	425	4 pc(s).	8612.150	8612.150	8612.150	8612.150	8612.150	
5 Support strip	400	325	20 pc(s).	4694.000	4694.000	4694.000	4694.000	4694.000	994
	500	425	20 pc(s).	4695.000	4695.000	4695.000	4695.000	4695.000	

Installation in the height (individual installation e.g. with)	
Punched section with mounting flange, 17 x 73 mm	see page 992
Support strip	see page 994

[1] A = Rail mounting distance

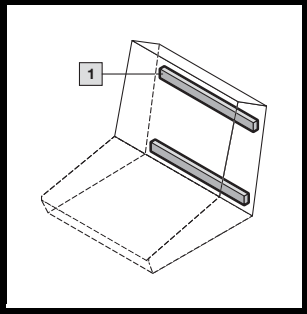


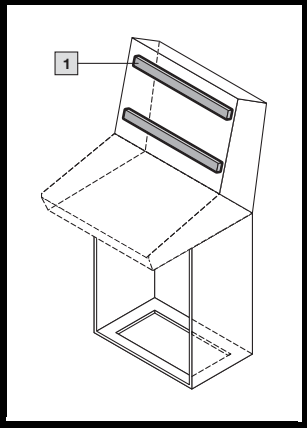
TP console
Installation examples with system rails

Preparing for installation						
1 Rail for interior installation	Packs of	For enclosure width mm				Page
		600	800	1200	1600	
Model No.	4 pc(s).	5001.050	5001.051	5001.053	5001.054	995

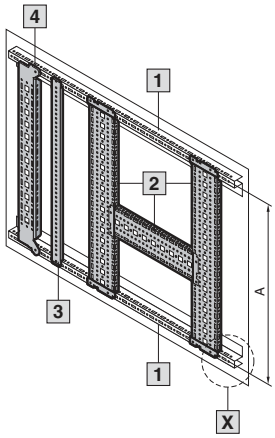
Installation in the height							
	A[1] mm	Packs of	**Model No.**				
For enclosure width mm			600	800	1200	1600	
1 Punched section with mounting flange, 17 x 73 mm							
For cover	375	4 pc(s).	8612.040	8612.040	8612.040	8612.040	992
For enclosure	425	4 pc(s).	8612.150	8612.150	8612.150	8612.150	992
3 Support strip							
For cover	375	20 pc(s).	4309.000	4309.000	4309.000	4309.000	994
For enclosure	425	20 pc(s).	4695.000	4695.000	4695.000	4695.000	994
4 Punched section with mounting flange 14 x 39 mm							
For enclosure	375	4 pc(s).	8619.710	–	–	–	990

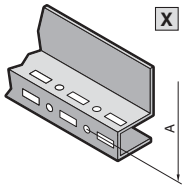
[1] A = Rail mounting distance



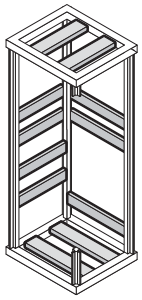


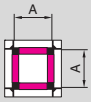
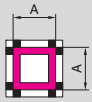
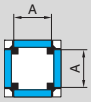
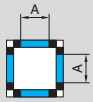
Console/console lid

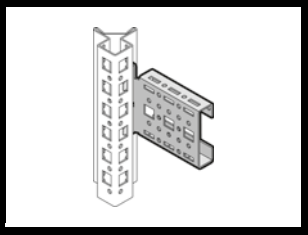




VX/ VX SE installation examples with system rails



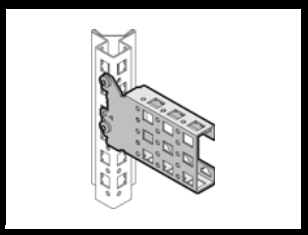
	Installation in the roof and base frame in the width/depth		Installation between vertical sections in the width/depth				
			Inner level		Outer level		
	VX	VX SE	VX	VX SE	VX	VX SE	
							

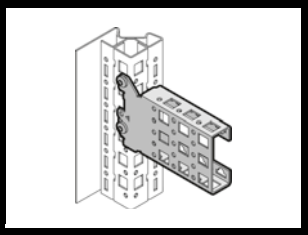


Punched section with mounting flange 18 x 64 mm, installation in VX

For enclosure width/height/depth mm	Packs of	A[1] mm	Model No.[2]		Model No.	Model No.[2]		Page
300	4 pc(s).	225	8617.000	–	–	8617.000	–	990
400	4 pc(s).	325	8617.010	–	–	8617.010	–	
500	4 pc(s).	425	8617.020	–	–	8617.020	–	
600	4 pc(s).	525	8617.030	–	–	8617.030	–	
800	4 pc(s).	725	8617.040	–	–	8617.040	–	
1000	4 pc(s).	925	8617.050	–	–	8617.050	–	
1200	4 pc(s).	1125	8617.060	–	–	8617.060	–	

[1] A = Rail mounting distance
[2] Only suitable for installation in the roof



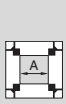
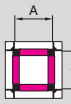
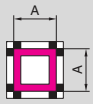
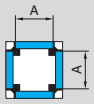
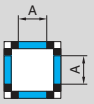


Punched section with mounting flange 23 x 64 mm, installation in VX, VX SE

For enclosure width/height/depth mm	Packs of	A[1] mm	Model No.[2]	Model No.[2]	Model No.	Page
300	4 pc(s).	225	8617.100	8617.100	–	991
400	4 pc(s).	325	8617.110	8617.110	–	
500	4 pc(s).	425	8617.120	8617.120	–	
600	4 pc(s).	525	8617.130	8617.130	–	
800	4 pc(s).	725	8617.140	8617.140	–	
1000	4 pc(s).	925	8617.150	8617.150	–	
1200	4 pc(s).	1125	8617.160	8617.160	–	
1,400	4 pc(s).	1325	8617.170	8617.170	–	
1600	4 pc(s).	1525	8617.180	8617.180	–	
1800	4 pc(s).	1725	8617.190	8617.190	–	
2000	4 pc(s).	1925	8617.200	8617.200	–	
2200	4 pc(s).	2125	8617.210	8617.210	–	

[1] A = Rail mounting distance
[2] For the installation on the vertical section of the VX SE, the adaptor rail VX is required, see page 995

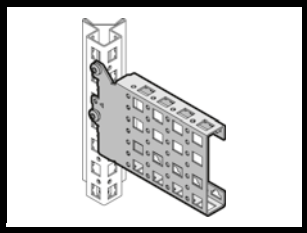
VX/VX SE installation examples with system rails

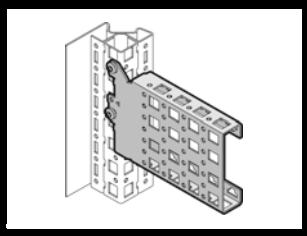
	Installation in the roof and base frame in the width/depth		Installation between vertical sections in the width/depth				
			Inner level		Outer level		
	VX	VX SE	VX	VX SE	VX	VX SE	
							

Punched section with mounting flange 23 x 89 mm, stainless steel, installation in VX, VX SE

For enclosure width/depth mm	Packs of	A[1] mm	**Model No.[2]**	**Model No.[2]**	**Model No.**	Page
400	2 pc(s).	325	8100.730	8100.730	–	991
500	2 pc(s).	425	8100.731	8100.731	–	
600	2 pc(s).	525	8100.732	8100.732	–	
800	2 pc(s).	725	8100.733	8100.733	–	

[1] A = Rail mounting distance
[2] For the installation on the vertical section of the VX SE, the adaptor rail VX is required, see page 995

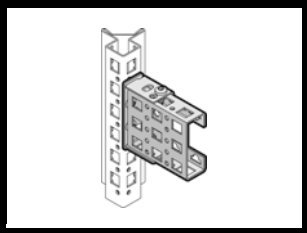


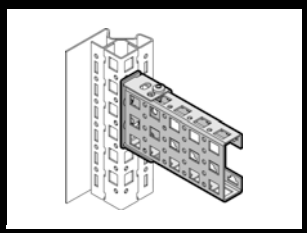


Punched section without mounting flange 23 x 64 mm, installation in VX, VX SE

For enclosure width/height/depth mm	Packs of	A[1] mm	**Model No.[2]**	**Model No.[2]**	**Model No.**	Page
400	2 pc(s).	325	8100.740	8100.740	–	993
500	2 pc(s).	425	8100.741	8100.741	–	
600	2 pc(s).	525	8100.742	8100.742	–	
800	2 pc(s).	725	8100.743	8100.743	–	
1200	2 pc(s).	1125	8100.745	8100.745	–	

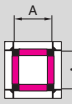
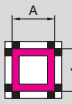
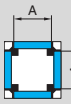
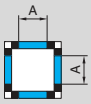
[1] A = Rail mounting distance
[2] For the installation on the vertical section of the VX SE, the adaptor rail VX is required, see page 995

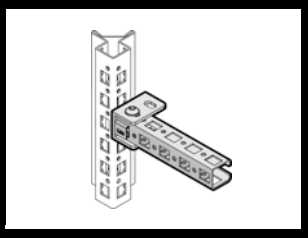


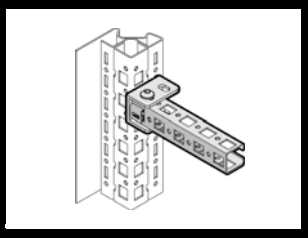


Rail systems

VX/VX SE installation examples with system rails

	Installation in the roof and base frame in the width/depth		Installation between vertical sections in the width/depth				
			Inner level		Outer level		
	VX	VX SE	VX	VX SE	VX	VX SE	
							

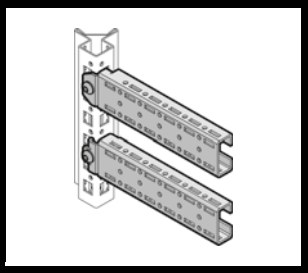


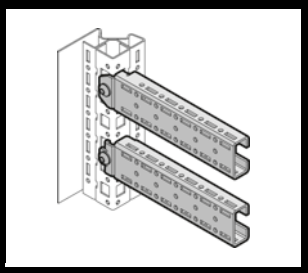


Punched rail 23 x 23 mm, installation in VX, VX SE

For enclosure width/height/depth mm	Packs of	A[1] mm	**Model No.[2] [3]**	**Model No.[2] [3]**	**Model No.**	Page
400	12 pc(s).	325	4169.000	4169.000	–	994
500	12 pc(s).	425	4170.000	4170.000	–	
600	12 pc(s).	525	4171.000	4171.000	–	
800	12 pc(s).	725	4172.000	4172.000	–	
1000	12 pc(s).	925	4173.000	4173.000	–	
1200	6 pc(s).	1125	4174.000	4174.000	–	
1400	6 pc(s).	1325	4393.000	4393.000	–	
1600	6 pc(s).	1525	4175.000	4175.000	–	
1800	6 pc(s).	1725	4176.000	4176.000	–	
2000	6 pc(s).	1925	4177.000	4177.000	–	
2200	6 pc(s).	2125	4178.000	4178.000	–	

[1] A = Rail mounting distance
[2] For the installation on the vertical section of the VX SE, the adaptor rail VX is required, see page 995
[3] For the installation in VX and VX SE, the mounting bracket 4182.000 and a U nut are required, see page 1002/1003





Punched rail 18 x 39 mm, installation in VX, VX SE

For enclosure width/depth mm	Packs of	A[1] mm	**Model No.[2]**	**Model No.[2]**	**Model No.**	Page
400	4 pc(s).	325	8617.700	8617.700	–	993
500	4 pc(s).	425	8617.710	8617.710	–	
600	4 pc(s).	525	8617.720	8617.720	–	
800	4 pc(s).	725	8617.730	8617.730	–	

[1] A = Rail mounting distance
[2] For the installation on the vertical section of the VX SE, the adaptor rail VX is required, see page 995

Rail for interior installation AX

For mounting in the enclosure, no machining required. Suitable for mounting on the side, base and roof using the locators integrated into the enclosure.

Variable with 2 rows of system punchings, creates additional mounting space e.g. for:
- Punched section with mounting flange, 14 x 39 mm
- Enclosure lights
- Door-operated switch
- Door stay
- Cable conduit holder

Benefits:
- Only one screw for attaching the rail inside the enclosure
- Including adaptor for door-operated switch
- Compatibility with VX25 accessories
- Enclosure protection category is retained (no machining required)
- Automatic potential equalisation
- May be retro-fitted even with the mounting plate in situ, suitable for installation via gland plates

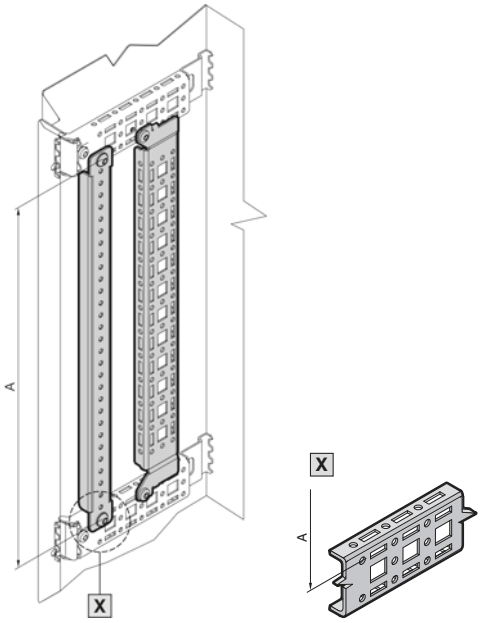
Material:
- Sheet steel

Surface finish:
- Zinc-plated

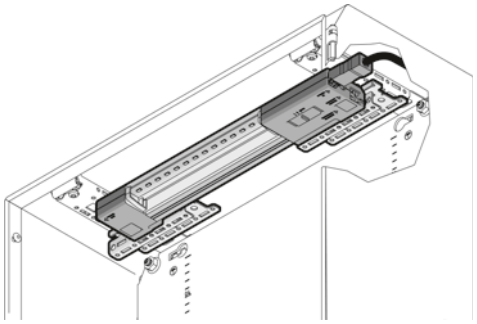
Also required:
- For installing LED system light: Mounting bracket for interior installation, see page 1000

For enclosure depth mm	Packs of	Model No.
210	4 pc(s).	**2393.210**
250	4 pc(s).	**2393.250**
300	4 pc(s).	**2393.300**
350	4 pc(s).	**2393.350**
400	4 pc(s).	**2393.400**

Configuration examples:



A = Rail mounting distance



Mounting of LED system light

Rail systems

Punched section with mounting flange, 14 x 39 mm

for AX

Interior installation in the enclosure height and width
Locates securely onto the interior installation rail AX.

For the attachment of
– Cable ducts
– Cable conduit holder

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure height/width mm	Distance between attachment points mm	Packs of	Model No.
400	275	4 pc(s).	**8619.700**
500	375	4 pc(s).	**8619.710**
600	475	4 pc(s).	**8619.720**
700	575	4 pc(s).	**8619.760**
760	635	4 pc(s).	**8619.790**
800	675	4 pc(s).	**8619.730**
1000	875	4 pc(s).	**8619.750**
1200	1075	4 pc(s).	**8619.770**
1400	1275	4 pc(s).	**8619.780**

Also required:

– Interior installation rail AX for configuration in the enclosure height and width, see page 989

Accessories:

– Screws and self-tapping screws M5 for configuring the customer's own components on the punched section with mounting flange, see page 1004

Punched section with mounting flange, 18 x 64 mm

for VX

For variable, individual interior installation of the enclosure frame on the outer mounting level. Simply locate into the system punchings from the outside and screw-fasten. System punchings on all four sides. With bayed enclosures, the punched sections with mounting flanges may also be fitted from the inside of the enclosure.

Installation options:
– On the outer mounting level, on the enclosure section
– On the outer mounting level, between two punched sections with mounting flanges 23 x 64 mm

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width/height/depth mm	Packs of	Model No.
300	4 pc(s).	**8617.000**
400	4 pc(s).	**8617.010**
500	4 pc(s).	**8617.020**
600	4 pc(s).	**8617.030**
800	4 pc(s).	**8617.040**
1000	4 pc(s).	**8617.050**
1200	4 pc(s).	**8617.060**

Accessories:

– Screws, see page 1004
– Cable tie 2597.000, see page 1061

Punched section with mounting flange, 23 x 64 mm

for VX, VX IT, VX SE, AX plastic

For variable and individual interior installation. Simply locate into punchings and screw-fasten. System punchings on all four sides. With slots at the top and bottom for cage nuts, for attaching your own components via metric screws.

Installation options:

VX/VX IT
- On the inner mounting level, on the enclosure section VX

VX SE
- On the vertical section of the VX SE with adaptor rail VX

AX plastic
- In the width and height of the enclosure in conjuction with universal bracket

System accessories
- On identical punched sections with mounting flanges
- In the base/plinth system VX in the width and depth, combined with a base/plinth installation bracket

Material:
- Sheet steel

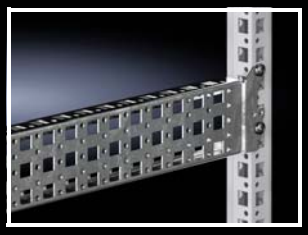
Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

For enclosure width/height/depth mm	Packs of	Model No.
300	4 pc(s).	**8617.100**
400	4 pc(s).	**8617.110**
500	4 pc(s).	**8617.120**
600	4 pc(s).	**8617.130**
800	4 pc(s).	**8617.140**
1000	4 pc(s).	**8617.150**
1200	4 pc(s).	**8617.160**
1400	4 pc(s).	**8617.170**
1600	4 pc(s).	**8617.180**
1800	4 pc(s).	**8617.190**
2000	4 pc(s).	**8617.200**
2200	4 pc(s).	**8617.210**

Also required:
- For VX SE: Adaptor rail VX, see page 995
- For AX plastic: Universal bracket 1485.200, see page 97

Accessories:
- Screws, see page 1004
- Cable tie 2597.000, see page 1061
- Cage nut, see page 1002
- Base/plinth installation bracket, see page 885



Punched section with mounting flange, 23 x 89 mm

Stainless steel
for VX, VX SE

For variable, individual interior installation of the enclosure frame on the inner mounting level. Simply locate into punchings and screw-fasten. System punchings on all four sides. With slots at the top and bottom for cage nuts, for attaching your own components via metric screws. Especially for cable routing in the base/plinth system VX, stainless steel and for the installation of busbar supports (non-magnetic stainless steel).

Installation options:

VX
- On the inner mounting level, on the enclosure section VX

VX SE
- On the vertical section of the VX SE with adaptor rail VX

System accessories
- On identical punched sections with mounting flanges
- In the base/plinth system VX, stainless steel, in the width and depth, combined with a base/plinth installation bracket

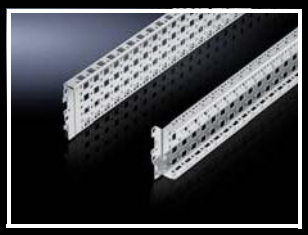
Material:
- Stainless steel

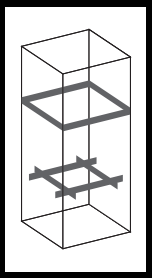
Supply includes:
- Assembly parts

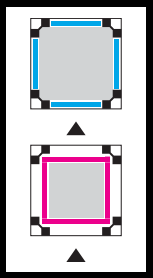
For enclosure width/depth mm	Packs of	Model No.
400	2 pc(s).	**8100.730**
500	2 pc(s).	**8100.731**
600	2 pc(s).	**8100.732**
800	2 pc(s).	**8100.733**

Also required:
- For VX SE: Adaptor rail VX, see page 995

Accessories:
- Screws, see page 1004
- Cable tie 2597.000, see page 1061
- Cage nut, see page 1002
- Base/plinth installation bracket, see page 885







Punched section with mounting flange, 17 x 73 mm

for VX SE, TP, PC, IW

For universal skeleton structures or partial assembly. Simply locate onto the punchings and secure.

Installation options:

VX SE, PC, IW
- On the vertical enclosure section
  - On the outer mounting level, all-round, at the same height
  - On the inner mounting level, all-round, height-offset

VX SE, PC
- On the horizontal enclosure extrusion
  - May be mounted on the top horizontal section in the depth

TP
- Via rail for interior installation
  - In the depth, for outer mounting level
  - In the width, for inner mounting level

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly screws

Also required:
- For installation in TP: Rail for interior installation, see page 995

Accessories:
- Screws, see page 1004
- Cable tie for fast assembly 2597.000, see page 1061.

For the outer mounting level

For enclosure width/depth mm	Packs of	Model No.
300	4 pc(s).	**8612.130**
400	4 pc(s).	**8612.140**
500	4 pc(s).	**8612.150**
600	4 pc(s).	**8612.160**

For the inner mounting level

For enclosure width/depth mm	Length mm	Packs of	Model No.
300	290	4 pc(s).	**8612.030**
400	390	4 pc(s).	**8612.040**
500	490	4 pc(s).	**8612.050**
600	590	4 pc(s).	**8612.060**

Punched section without mounting flanges, 23 x 64 mm

for VX, VX SE

For variable, individual interior installation of the enclosure frame on the inner mounting level. Mounted flush with enclosure frame The additional mounting brackets mean it can also be used with a pre-installed mounting plate, and is also prepared for cutting to any required length. System punchings on all four sides. With slots at the top and bottom for cage nuts, for attaching your own components via metric screws.

Installation options:

VX
- On the inner mounting level, on the enclosure section

VX SE
- On the vertical section of the VX SE with adaptor rail VX

System accessories
- Between two punched sections with mounting flanges for the inner mounting level
- As installation kit for component shelves

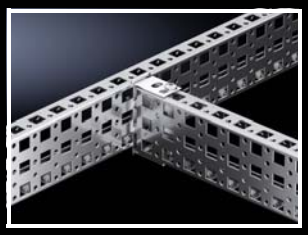
Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- 1 pack =
  2 punched sections without mounting flanges 23 x 64 mm
  4 mounting brackets

For enclosure width/height/depth mm	Packs of	Model No.
400	2 pc(s).	**8100.740**
500	2 pc(s).	**8100.741**
600	2 pc(s).	**8100.742**
800	2 pc(s).	**8100.743**
1200	2 pc(s).	**8100.745**

Also required:
- For VX SE: Adaptor rail VX, see page 995



Punched rail 18 x 39 mm

for VX, VX SE

For variable, individual interior installation of the enclosure frame on the inner mounting level, may also be used in conjunction with other punched sections. Prepared at the rear to accommodate cable clamps for optimum cable routing inside the enclosure

Installation options:

VX
- On the inner mounting level, on the enclosure section

VX SE
- On the vertical section of the VX SE with adaptor rail VX

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

For enclosure width/depth mm	Packs of	Model No.
400	4 pc(s).	**8617.700**
500	4 pc(s).	**8617.710**
600	4 pc(s).	**8617.720**
800	4 pc(s).	**8617.730**

Note:
- In enclosures with a mounting plate, two punched rails (as mounting plate slide rails) are already included with the supply

Also required:
- For VX SE: Adaptor rail VX, see page 995

Accessories:
- Screws, see page 1004
- Cable tie 2597.000, see page 1061
- Cable clamps, see page 1060

Rail systems

Punched rail 23 x 23 mm

for VX, VX SE

Installation options:
VX
– To the vertical and horizontal enclosure sections via mounting brackets

VX SE
– To the vertical enclosure section via mounting brackets in conjunction with adaptor rail VX
– To the horizontal section/in roof via mounting brackets in conjunction with adaptor rail VX in the depth

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Length mm	For WHD mm	Packs of	Model No.
295	400	12 pc(s).	**4169.000**
395	500	12 pc(s).	**4170.000**
495	600	12 pc(s).	**4171.000**
695	800	12 pc(s).	**4172.000**
895	1000	12 pc(s).	**4173.000**
1095	1200	6 pc(s).	**4174.000**
1295	1400	6 pc(s).	**4393.000**
1495	1600	6 pc(s).	**4175.000**
1695	1800	6 pc(s).	**4176.000**
1895	2000	6 pc(s).	**4177.000**
2095	2200	6 pc(s).	**4178.000**

Also required:
– For VX SE: Adaptor rail VX, see page 995
– U nuts, see page 1003
– Mounting bracket 4182.000, see page 1002

Accessories:
– Cable attachment, see page 1061
– Screws, see page 1004
– Cable tie for fast assembly 2597.000, see page 1061

Support strip

for VX, VX SE
For simple cable routing from the mounting plate to the door.

Installation options:
– On the inner and outer mounting level, on the enclosure section

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– Installation options for TP interior installation, see page 984/985
– VX, VX SE, AX, TP, PC, IW door installation, see page 952

Accessories:
– Screws, see page 1004
– Cable tie 2597.000, see page 1061

For enclosure width/depth mm	For enclosure system, inner level	For enclosure system, outer level	Rail mounting distance mm	Packs of	Model No.
400	VX	VX, VX SE	325	20 pc(s).	**4694.000**
	VX SE	–	375	20 pc(s).	**4309.000**
500	VX	VX, VX SE	425	20 pc(s).	**4695.000**
	VX SE	–	475	20 pc(s).	**4596.000**
600	VX	VX, VX SE	525	20 pc(s).	**4696.000**
	VX SE	–	575	20 pc(s).	**8800.130**
800	VX	VX, VX SE	725	20 pc(s).	**4697.000**
	VX SE	–	775	20 pc(s).	**4579.000**

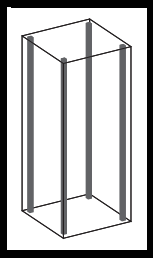
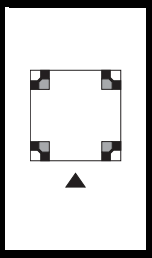
Adaptor rail VX

for VX compatibility
for VX SE
To create compatibility of the interior installation between VX SE and VX25. The adaptor rail VX can be cut to length for customised configurations.

Installation options:
– On the vertical enclosure section of the VX SE (over the full installation height or in sub-sections)
– On the horizontal roof section of the VX SE, in the width

Supply includes:
– 4 adaptor rails
– Assembly parts

For enclosure height mm	Length mm	Packs of	Model No.
–	200	4 pc(s).	**8617.760**
1800	–	4 pc(s).	**8617.750**
2000	–	4 pc(s).	**8617.751**

Rail for interior installation

for TP, compact enclosures HD
For mounting on the existing threaded bolts. With system punchings on three sides.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	For enclosure height mm	For enclosure height mm	Packs of	Model No.
TP[1)]	TP[2)]	HD		
600	675	650	4 pc(s).	**5001.050**
800	960	–	4 pc(s).	**5001.051**
1000	–	1050	4 pc(s).	**5001.052**
1200	–	1250	4 pc(s).	**5001.053**
1600	–	–	4 pc(s).	**5001.054**

[1)] Only with TP console and desk unit (cover or rear panel/base), one-piece console in cover
[2)] Only with TP pedestal/one-piece console

Note:
– Installation options TP, see page 984/985
– Installation options HD, see page 225

Base configuration rail

for TP
For mounting in the enclosure depth, on the existing threaded bolts, no machining required. System punchings on 2 sides. Creates additional installation options.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
400	2 pc(s).	**5001.370**

Rail systems

C rail 30/15

to EN 60 715, for VX, VX SE

Installation options:
– On the inner mounting level, on the enclosure section
– In the base/plinth VX

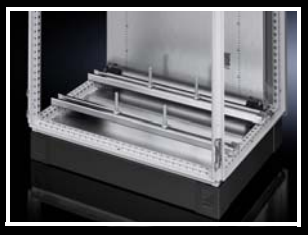
Material:
– Sheet steel

Surface finish:
– Zinc-plated

For enclosure width/depth mm	Length mm	Packs of	Model No.
500	455	6 pc(s).	**4943.000**
600	555	6 pc(s).	**4944.000**
800	755	6 pc(s).	**4945.000**
1000	955	6 pc(s).	**4946.000**
1200	1155	6 pc(s).	**4947.000**

Accessories:
– Cable clamps, see page 1060
– Support bracket or spacer, see page 1001
– Quick-assembly block, see page 1001

Possible alternative:
– Rail for EMC shielding bracket and strain relief, see page 1029



Support rail 48 x 26 mm

for VX, VX SE

For heavy installed equipment such as transformers. T-head screw and slots in the support rail accommodate all mounting dimensions.

Installation options:
VX
– On the inner mounting level, on the enclosure section

VX SE
– On the inner mounting level, on the enclosure section in conjunction with adaptor rail VX

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8617.800**
800	2 pc(s).	**8617.810**
1000	2 pc(s).	**8617.820**
1200	2 pc(s).	**8617.830**

Also required:
– For VX SE: Adaptor rail VX, see page 995

Accessories:
– Punched section with mounting flange 23 x 64 mm for height-offset installation, see page 991

Support rail 75 x 20 mm

for VX, VX SE

For heavy installed equipment such as base isolators or transformers.

Installation options:
VX
– On the inner mounting level, on the enclosure section

VX SE
– On the inner mounting level, on the enclosure section in conjunction with adaptor rail VX

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure width/depth mm	Packs of	Model No. Slotted	Model No. Unslotted
400	4 pc(s).	**4394.000**	–
500	4 pc(s).	**4395.000**	–
600	4 pc(s).	**4396.000**	**4396.500**
800	4 pc(s).	**4398.000**	**4398.500**

Also required:
– For VX SE: Adaptor rail VX, see page 995

Support rail 65 x 42 mm

for VX, VX SE

For heavy installed equipment such as base isolators or transformers.

Installation options:

VX

– On the inner mounting level, on the enclosure section

VX SE

– On the inner mounting level, on the enclosure section in conjunction with adaptor rail VX

Material:

– Steel

Surface finish:

– Zinc-plated

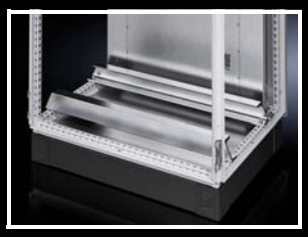
Supply includes:

– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8612.960**
800	2 pc(s).	**8612.980**

Also required:

– For VX SE: Adaptor rail VX, see page 995



Support rails TS 35/15

to EN 60 715
for VX, VX SE

Mounting on the vertical section via

– threaded block M8, 4163.000, see page 1003

For enclosure width/depth mm	Support rail length mm	Packs of	Model No.
500	455	6 pc(s).	**4933.000**
600	555	6 pc(s).	**4934.000**
800	755	6 pc(s).	**4935.000**
1200	1155	6 pc(s).	**4937.000**
–	2000	6 pc(s).	**2313.150**

Support rails TS 35/7.5 and TS 35/15

to EN 60 715
for KX, AX, terminal box HD

For enclosure width mm	Support rail length mm	Version	Packs of	Model No.
150	137	TS 35/7.5	10 pc(s).	**2314.000**
200	187		10 pc(s).	**2315.000**
300	287		10 pc(s).	**2316.000**
400	387		10 pc(s).	**2317.000**
–	2000		6 pc(s).	**2313.750**
500	487	TS 35/15	10 pc(s).	**2318.000**
600	587		10 pc(s).	**2319.000**

Mounting clip

For fast, secure attachment of:

– Cable ducts
– Mounting plates
– Mounting angles

on support rail TS 35/7.5 and 35/15 to EN 60 715. Simply pre-assemble the mounting clip on the part to be installed, then snap into position on the support rail.

Packs of	Model No.
30 pc(s).	**2309.000**

Rail systems

Mounting claw for second mounting level

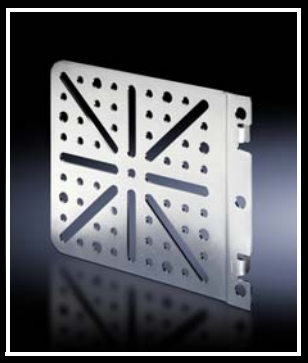
for terminal boxes KX, bus enclosures KX

For fixing top hat rails directly onto the rear panel of KX terminal boxes and KX bus enclosures. Creates an additional mounting level with an extra 10 mm of installation depth without having to machine the enclosure.

Packs of	Model No.
20 pc(s).	**2309.100**

Accessories:

– Support rails TS 35/7.5 to EN 60 715, see page 997



Mounting plate

Locatable
for AX, VX, VX SE

Installation options:
– On the inner and outer mounting level, on the enclosure section
– On punched sections with mounting flanges
– On rail for interior installation AX
– On the perforated door strip AX

Material:
– Sheet steel

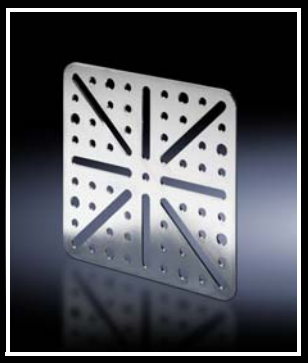
Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**8612.400**

Accessories:

– Screws, see page 1004
– Cable tie 2597.000, see page 1061



Mounting plate

Screw-fastened, large
for AX, VX, VX SE, AX plastic

Installation options:
– On all enclosures and mounting parts with system punchings on a 25 mm pitch pattern
– On the perforated door strip AX

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**8612.410**

Accessories:

– Screws, see page 1004
– Cable tie 2597.000, see page 1061

Mounting plate

Screw-fastened, small
for AX, VX, VX SE, AX plastic

Installation options:
– On all enclosures and mounting parts with system punchings on a 25 mm pitch pattern
– On the perforated door strip AX

Material:
– Sheet steel

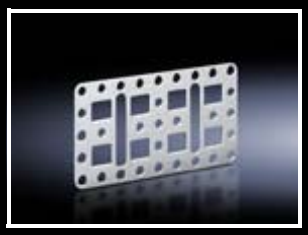
Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**4532.000**

Accessories:

– Screws, see page 1004
– Cable tie 2597.000, see page 1061



Mounting plate

with integral top hat rail
for AX, VX, VX SE, AX IT, VX IT, TE
For direct snap-mounting of components such as speed control, enclosure internal thermostat and hygrostat.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**7526.964**

Mounting bracket

Installation options:
– On all enclosures and mounting parts with system punchings on a 25 mm pitch pattern

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly screws

Packs of	Model No.
4 pc(s).	**4597.000**

Accessories:

– Screws, see page 1004
– Cable tie 2597.000, see page 1061

Mounting bracket

for interior installation

For installing punched sections with mounting flanges and support strips in
– Comfort Panel horizontal/vertical from 74 mm installation depth
or for installing in:
– Optipanel from an installation depth of 100 mm

For installing the LED system light in
– compact enclosures AX in conjunction with the rail for interior installation AX, see page 989, without machining and without the use of tools

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	**Model No.**
4 pc(s).	**6205.100**

Mounting options in Comfort Panel/Optipanel

		Front panel width 482.6 mm (19")	Page
Punched section with mounting flange	Horizontal	8612.150	992
	Vertical		
Support strips	Horizontal	4695.000	994
	Vertical		

Bracket/spacer

For flexible attachment of C rails, punched rails or cable clamp rails (angle piece). On the sides, to accommodate square sections or tubes (Ø 20 mm). Attachment points with M8 thread.

Installation options:
- On vertical and horizontal VX, VX SE enclosure section
- On punched sections with mounting flanges for the inner mounting level
- On enclosures and rails with rectangular system punching 12.5 x 11 mm

Material:
- Die-cast zinc

Supply includes:
- 1 pc(s). =
  1 bracket/spacer
  2 screws M8 x 16 mm
  2 spring lock washers
  2 cage nuts M8
  2 screws

Packs of	Model No.
6 pc(s).	**4199.000**

Also required:
- For VX SE: Adaptor rail VX, see page 995

Accessories:
- Angle piece 4134.000, see page 1001

Quick-assembly block

for a variety of installation options.

Installation options:
- On vertical and horizontal VX, VX SE enclosure section
- On punched sections with mounting flanges for the inner mounting level
- On enclosures and rails with rectangular system punching 12.5 x 11 mm

Material:
- Die-cast zinc

Supply includes:
- 12 quick-assembly blocks
- 12 threaded blocks M8
- 24 screws M8 x 12 mm
- 24 square nuts M8

Packs of	Model No.
12 pc(s).	**4133.000**

Also required:
- For VX SE: Adaptor rail VX, see page 995

Accessories:
- Angle piece 4134.000, see page 1001

Angle piece

For assembling mounting surfaces with a 45° incline. Optimum positioning of cable clamp rails, etc.

With two mounting options as standard:
- Conductively connected to the subsurface
- Insulated from the mounting surface

Installation options:
- On vertical and horizontal VX, VX SE enclosure section
- On punched sections with mounting flanges for the inner mounting level
- On the bracket/spacer
- On the quick-assembly block
- On enclosures and rails with rectangular system punching 12.5 x 11 mm

Material:
- Angle pieces: Die-cast zinc
- Insulating pieces: Plastic

Supply includes:
- 1 pc(s). =
  1 angle piece
  1 insulating piece
  1 insulating screw
  2 assembly screws
  1 threaded block M8

Packs of	Model No.
12 pc(s).	**4134.000**

Also required:
- For VX SE: Adaptor rail VX, see page 995

Assembly components

Mounting bracket

for VX, VX SE

For variable attachment of punched rail 23 x 23 mm.

Installation options:
- Optionally flush with the outer edge of the enclosure or the enclosure clearance width
- On the vertical VX, VX SE enclosure section
- On the horizontal VX enclosure section
- On the horizontal VX SE enclosure section, bottom
- On the horizontal VX SE enclosure section, top in the width and depth
- On enclosures and rails with rectangular system punching 12.5 x 11 mm

Material:
- Die-cast zinc

Supply includes:
- 1 pc(s). =
  1 mounting bracket
  1 screw M6 x 12 mm,
  1 cage nut M6

Packs of	Model No.
24 pc(s).	**4182.000**

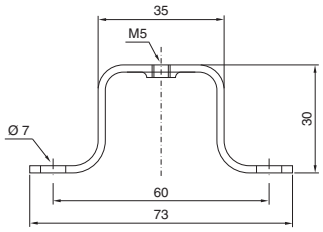
Also required:
- U nut (recommended: M6), see page 1003
- Multi-tooth screws M6 x 12 mm, see page 1004
- For VX SE: Adaptor rail VX, see page 995

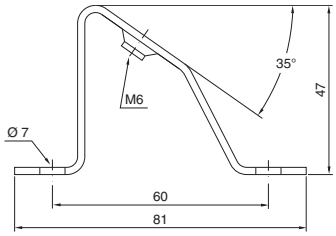
Rail mounting bracket

For individual mounting of rails at a distance from the mounting surface.

Material:
- Sheet steel, zinc-plated

Rail mounting bracket	Packs of	Model No.
Flat	20 pc(s).	**2365.000**
Inclined	20 pc(s).	**2366.000**





Cage nut

For all-round metric mounting on the enclosure section.

Benefits:
- For all-round mounting on the enclosure section
- The compression spring, designed as an insertion aid, ensures reliable mechanical and electrical connection in the system punchings.
- Simply slides in from the side
- Safely and easily released with a screwdriver

Installation options:
- On vertical and horizontal VX, VX SE enclosure section
- On punched sections with mounting flanges, 23 x 64 mm
- On punched sections with mounting flanges, 23 x 89 mm, stainless steel
- On punched rails 23 x 23 mm
- On punched section without mounting flanges, 23 x 64 mm
- On enclosures and rails with rectangular system punching 12.5 x 11 mm

Thread	Packs of	Model No.
M5	20 pc(s).	**4166.500**
M6	20 pc(s).	**4164.500**
M8	20 pc(s).	**4165.500**

Also required:
- For VX SE: Adaptor rail VX, see page 995

U nut

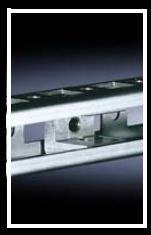
for punched rail 23 x 23 mm

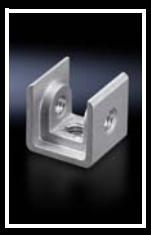
For mounting punched rails and punched sections without mounting flanges on mounting brackets, we recommend U nuts with M6 thread 4179.000.

Thread	Packs of	Model No.
M4	20 pc(s).	**4119.000**
M5	20 pc(s).	**4157.000**
M6	20 pc(s).	**4179.000**
M8	20 pc(s).	**4180.000**

Accessories:

– Multi-tooth screws M6 x 12 mm, for 4179.000, see page 1004





Threaded block

For all-round metric mounting in the enclosure section. With snap-off insertion aid, made from die-cast zinc.

Installation options:

– On vertical and horizontal VX, VX SE enclosure section
– On punched sections with mounting flanges, 23 x 64 mm
– On punched sections with mounting flanges, 23 x 89 mm, stainless steel
– On punched rails 23 x 23 mm
– On punched section without mounting flanges, 23 x 64 mm
– On enclosures and rails with rectangular system punching 12.5 x 11 mm

Thread	Packs of	Model No.
M6	50 pc(s).	**4162.000**
M8	50 pc(s).	**4163.000**

Also required:

– For VX SE: Adaptor rail VX, see page 995

Spring nut M5

For
– Comfort Panel from an installation depth of 74 mm
– Optipanel from an installation depth of 100 mm
– Compact Panel

The spring ensures reliable protection against unintentional displacement.

Other interior installation, e.g. with
– Mounting bracket 4597.000, see page 999 or
– mounting bracket components for interior installation 6205.100, see page 1000

Material:
– Steel, zinc-plated

Packs of	Model No.
50 pc(s).	**6108.000**

Assembly components

Universal bracket

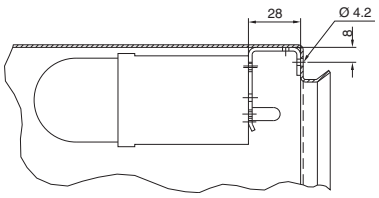
For the installation of
– Enclosure lights in
  – Compact enclosures AX
– Door-operated switches in
  – Compact enclosures AX
  – TopConsole system TP
– Cable conduit holders 2593.000 and 2591.000 in
  – Compact enclosures AX
– Support rails for terminals in
  – Operating housings and operating housings with door

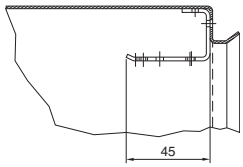
Mounting screws are concealed when the door is closed. Offers variable mounting options in compact enclosures, command panels and consoles.

Material:
– Sheet steel, zinc-plated

Supply includes:
– Assembly parts

Packs of	**Model No.**
6 pc(s).	**2373.000**





Multi-tooth screw

M6 x 12 to fit:
– Cage nuts 4164.500
– U nuts 4179.000
– Threaded blocks 4162.000

M8 x 12 to fit:
– Cage nuts 4165.500
– U nuts 4180.000
– Threaded blocks 4163.000

Metal multi-tooth screw

For the round holes Ø 4.5 mm in the enclosure section, punched rails and punched sections without mounting flanges.

Self-tapping screw

For the round holes Ø 4.5 mm in the enclosure section, punched rails and punched sections without mounting flanges.

Self-tapping screw

Mark, drill and tighten in a single operation using electric or pneumatic tools.

For metal thickness: 0.8 – 3 mm
Length: 16 mm
Usable length: 9.5 mm
Width across flats: 8 mm

Multi-tooth drive for optimum transmission of torques, an extended tool life and increased safety and reliability when tightening and loosening screw connections.

Type of screw	Dimensions mm	Packs of	**ModelNo.**
Multi-tooth screws	M6 x 12 M8 x 12	300 pc(s). 300 pc(s).	**2504.500** **2504.800**
Metal multi-tooth screws	5.5 x 13	300 pc(s).	**2486.600**
Metal multi-tooth screws for stainless steel	5 x 13	300 pc(s).	**2486.400**
Self-tapping screws			
– Hex screws	M5 x 10	500 pc(s).	**2504.000**
– Posidrive raised countersunk screws	M5 x 12	500 pc(s).	**2488.000**
– Pan-head screws, posidrive	M5 x 12	500 pc(s).	**2489.000**
– Multi-tooth pan-head screws	M5 x 12	500 pc(s).	**2489.500**
Self-tapping screws	ST 4.8 x 16	300 pc(s).	**2487.000**

Connection kit

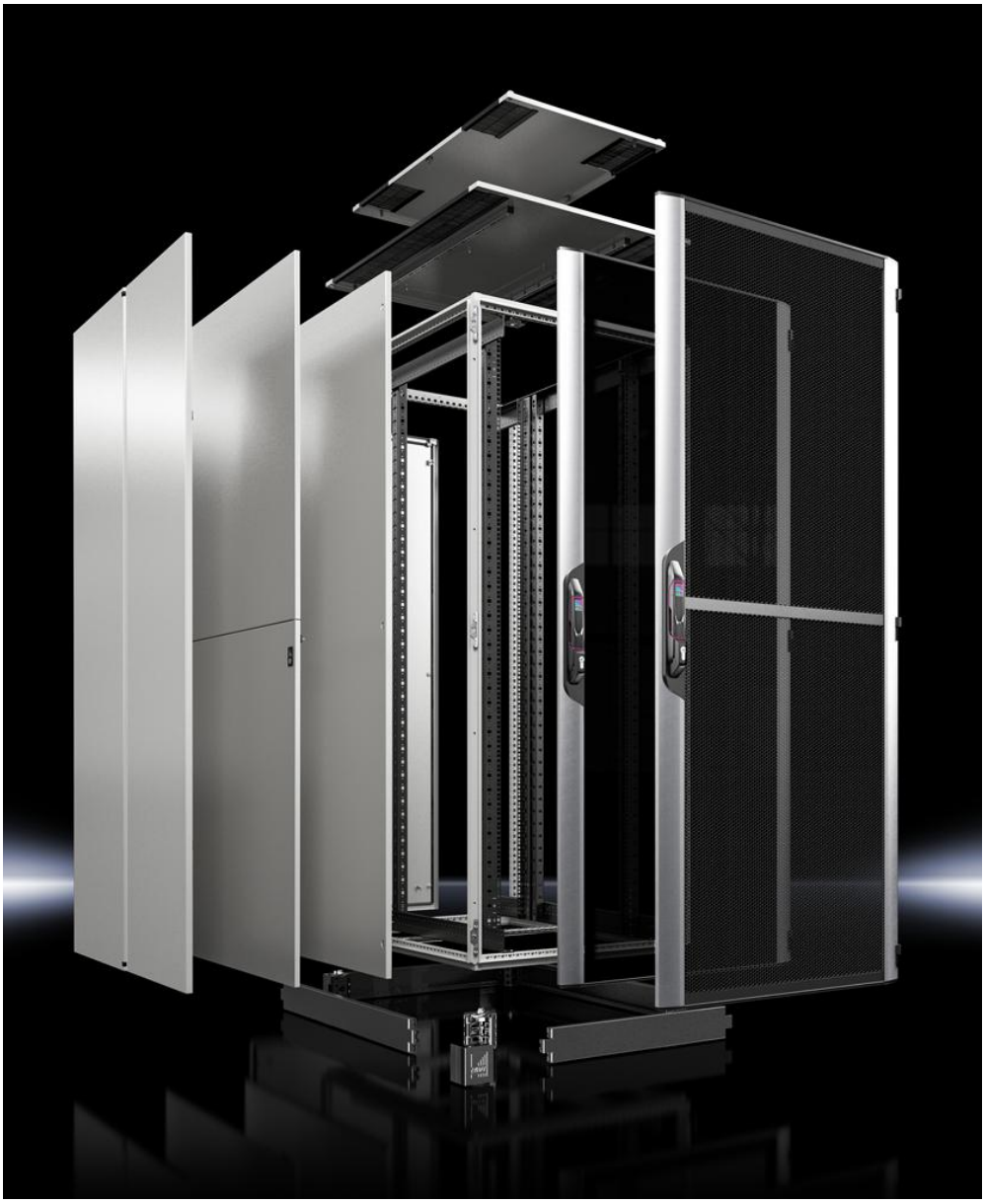
for separated frame VX IT

Every VX IT frame is easily converted to a rack suitable for dismantling. To this end, the frame sections in the roof and base frame must be separated, optionally in the width or depth. The four connection components are inserted into the frame section and screw-fastened. The external dimensions of the frame remain unchanged.

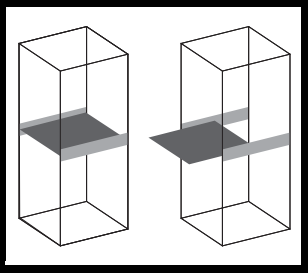
Supply includes:
- 4 connection components, internal
- 4 connection components, external
- Earth strap
- Assembly parts

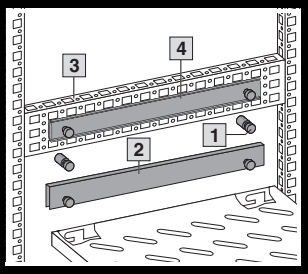
Note:
- The maximum achievable IP protection category is restricted by separation of the frame
- The static load capacity of the frame structure is reduced to 8000 N

Packs of	**Model No.**
4 pc(s).	**5302.037**



Component shelves for frame attachment





1 Assembly bolts
2 Mounting rails
3 Punched sections without mounting flanges
4 Telescopic slides

Component shelf for frame attachment

for empty enclosures VX and VX IT with enclosure width 600 and 800 mm
For installation in enclosures **without** 482.6 mm (19") accommodation.
Max. depth of component shelves = Enclosure depth - 100 mm.

Technical specifications:
- Mounting bolts or mounting rails may be installed on a 25 mm pitch pattern in the enclosure depth
- Mounting hole for handles provided.
- Component shelf, vented

Installation options:
- Static installation: Component shelf, 50 kg with fixing bolts on punched section without mounting flange
- Static installation: Component shelf, 100 kg with mounting rails on punched sections without mounting flange
- Depth variable: Component shelf with telescopic slides on punched sections without mounting flange

Material:
- Sheet steel

Surface finish:
- Spray-finished

Colour:
- RAL 7035

500 N version supply includes:
- Component shelf, vented
- 4 fixing bolts

1000 N version supply includes:
- Component shelf, vented
- 2 mounting rails

Enclosure width 600 mm

Load capacity N (static surface load)	500	500	500	500	1000	1000	1000	1000
Component shelf width mm	471	471	471	471	471	471	471	471
Component shelf depth mm	400	500	600	700	400	500	600	700
Component shelf height mm	29	29	29	29	45	45	45	45
Model No.	**7164.035**	**7165.035**	**7166.035**	**7166.735**	**7464.035**	**7465.035**	**7466.035**	**7466.735**

Enclosure width 800 mm

Load capacity N (static surface load)	500	500	500	500	1000	1000	1000	1000
Component shelf width mm	671	671	671	671	671	671	671	671
Component shelf depth mm	400	500	600	700	400	500	600	700
Component shelf height mm	29	29	29	29	45	45	45	45
Model No.	**7184.035**	**7185.035**	**7186.035**	**7186.735**	**7484.035**	**7485.035**	**7486.035**	**7486.735**

Accessories:

		Model No.							
Telescopic slides		7061.000	7081.000	7161.000	7161.700	7064.000	7065.000	7066.000	7066.700
Handles for component shelves		5501.730	5501.730	5501.730	5501.730	5501.730	5501.730	5501.730	5501.730
Cable support, hinged, with anti-kink device and clamp for enclosure depth mm	≤ 600	7163.560	7163.560	7163.560	7163.560	7163.560	7163.560	7163.560	7163.560
	> 600	7163.565	7163.565	7163.565	7163.565	7163.565	7163.565	7163.565	7163.565

Also required:

		Model No.
Punched section without mounting flange, 23 x 64 mm, as installation kit for enclosure depth, see page 993	500	8100.741
	600	8100.742
	800	8100.743
	1000/1200	8100.745

Component shelves for frame attachment

Component shelf, pull-out

for VX SE, PC, IW
For direct mounting on the vertical enclosure section.

Load capacity:
– 300 N surface load, static

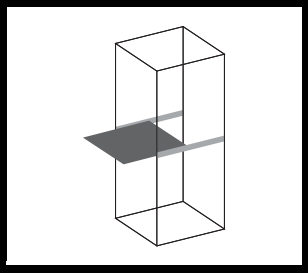
Material:
– Sheet steel

Colour:
– RAL 7015

Supply includes:
– 2 telescopic slides

For enclosures[1]		Support area		Model No.
Width mm	Depth mm	Width mm	Depth mm	
600	600	465	545	**6902.960**[2]
600	800	465	745	**6902.980**

[1] For enclosures without a mounting plate
[2] May also be installed in 800 mm deep enclosures (pull-out rear attachment)



Component shelf, static installation

for VX SE, PC, IW
prepared for fan expansion kit
For direct mounting on the vertical enclosure section. Simply locate into 4 pre-fitted screws and secure.

Load capacity:
– 400 N surface load, static

Material:
– Sheet steel

Colour:
– RAL 7015

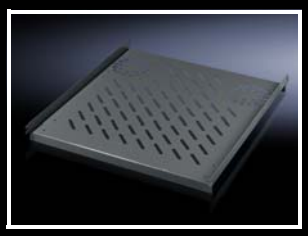
Supply includes:
– Assembly parts

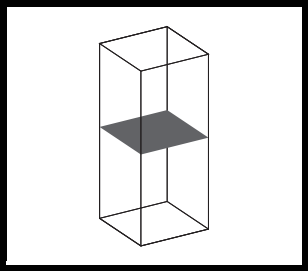
For enclosures[1]		Support area		Model No.
Width mm	Depth mm	Width mm	Depth mm	
600	600	507	550	**8800.900**
600	800	507	750	**8800.910**

[1] For enclosures without a mounting plate

Accessories:

– Fan expansion kit 7980.XXX, see page 790





Drawer tray

for IW, PC
pull-out
Width 600 mm and depth 600 – 800 mm
Tray height: 800 mm

Load capacity:
– 400 N surface load, static

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– 2 telescopic slides

Packs of	Model No.
1 pc(s).	**6902.700**

Component shelves for attachment to the 482.6 mm (19") system

Component shelf, static installation

482.6 mm (19"), depth-variable
for VX IT, TE

For static installation between two 482.6 mm (19") mounting levels.
– Contact width: 489 mm
– Depth-variable to adapt to individual distances between levels
– Tool-free, time-saving one-man assembly

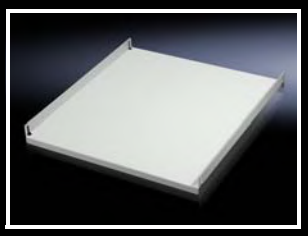
Material:
– Sheet steel

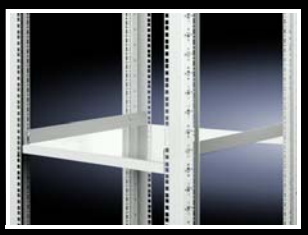
Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Distance between levels mm	Load capacity, static kg	Height U	Packs of	Model No.
400 – 600	50	½	1 pc(s).	**5501.655**
600 – 900	50	½	1 pc(s).	**5501.665**
400 – 600	100	1	1 pc(s).	**5501.695**
600 – 900	100	1	1 pc(s).	**5501.705**





Component shelf, static installation

for TE

The component shelf is attached directly at the side to the front and rear 482.6 mm (19") mounting frames for TE.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Note:
– Not suitable for combination with telescopic slides

Contact surface, width mm	505
Contact surface, depth mm	410
Distance between 482.6 mm (19") levels mm	495
Load capacity (static) N	300
Packs of	1 pc(s).
Model No.	**7000.620**

Component shelf, pull-out

482.6 mm (19")
for VX IT, TE

For mounting between two 482.6 mm (19") mounting levels.
– Contact width: 419 mm
– Depth-variable to adapt to individual distances between levels
– Tool-free, time-saving one-man assembly from the enclosure front
– Self-locking
– Full withdrawal

Material:
– Sheet steel

Surface finish:
– Component shelf: Spray-finished
– Mounting kit/telescopic slides: Zinc-plated

Colour:
– Component shelf: RAL 9005

Supply includes:
– Component shelf, slotted
– Telescopic slide with mounting kit
– Assembly parts

Distance between levels mm	Load capacity, static kg	Height U	Depth mm	Packs of	Model No.
400 – 600	50	1	500	1 pc(s).	**5501.675**
600 – 900	50	1	700	1 pc(s).	**5501.685**
400 – 600	100	1½	500	1 pc(s).	**5501.715**
600 – 900	100	1½	700	1 pc(s).	**5501.725**

Accessories:

– Handle for component shelf 5501.730, see page 1011

Component shelves for attachment to the 482.6 mm (19") system

Component shelf, pull-out

for TE
For mounting between two 482.6 mm (19") mounting levels.

Benefits:
– Depth-variable to adjust to the distance between 482.6 mm (19") levels in a 25 mm pitch pattern
– Full withdrawal

Material:
– Base: Sheet steel

Surface finish:
– Base: Spray-finished
– Mounting kit/telescopic slides: Zinc-plated

Colour:
– RAL 7035

Supply includes:
– Component shelf, vented
– Telescopic slides with mounting kit

Contact surface, width mm	409
Contact surface, depth mm	500
Distance between 482.6 mm (19") levels mm	395 – 645
Load capacity (static) N	500
Packs of	1 pc(s).
Model No.	**7000.625**

Component shelf 1 U, static installation

482.6 mm (19")
for one 482.6 mm (19") mounting level
The ideal support surface for small active components such as modems or mini-hubs.

Load capacity:
– 10 kg surface load, static

Material:
– Sheet steel

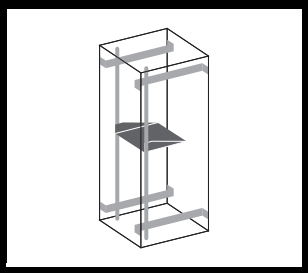
Surface finish:
– Spray-finished

Colour:
– RAL 7035

Note:
– Usable height inside the U approx. 35 mm

Component shelf depth mm	Packs of	**Model No.**
140	1 pc(s).	**7119.140**

Also required:
– Cage nuts, see page 1002
– Screws, see page 1004



Component shelves for attachment to the 482.6 mm (19") system

Component shelf 2 U, static installation

482.6 mm (19")
for one 482.6 mm (19") mounting level
The ideal support surface for small active components such as modems or mini-hubs.

Load capacity:
– 25 kg surface load, static

Material:
– Sheet steel

Surface finish:
– Spray-finished

Component shelf depth mm	Colour	Packs of	Model No.
250	RAL 7035	1 pc(s).	**7119.250**
	RAL 9005	1 pc(s).	**5501.615**
400	RAL 7035	1 pc(s).	**7119.400**
	RAL 9005	1 pc(s).	**5501.625**

Also required:
– Cage nuts, see page 1002
– Screws, see page 1004

Component shelf, pull-out, 2 U

for one 482.6 mm (19") mounting level
For simple, front installation of wall-mounted or floor-standing enclosures with at least one 482.6 mm (19") mounting level. This complete set comprises the pre-configured variant including telescopic slides, moulded handle, flange and locking pins.

Benefits:
– Simple tool-free assembly
– Full withdrawal
– Self-locking

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Component shelf, pre-configured
– Assembly parts

Contact surface, width mm	Contact surface, depth mm	Load capacity (static) N	Packs of	Model No.
430	300	250	1 pc(s).	**5501.635**

Accessories for component shelves

Telescopic slide

for component shelf for frame attachment
Static component shelves are easily converted to full withdrawal by exchanging the existing assembly bolts or mounting rails (heavy-duty version) for telescopic slides.

Technical specifications:
– For installation and locking on a 25 mm pitch pattern in the enclosure depth

Material:
– Sheet steel

Surface finish:
– Zinc-plated

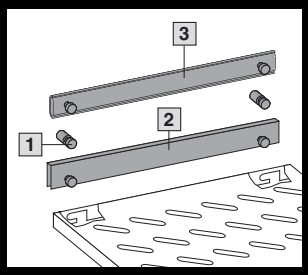
Load capacity 50 kg

For component shelf depth mm	Packs of	Model No.
400	2 pc(s).	**7061.000**
500	2 pc(s).	**7081.000**
600	2 pc(s).	**7161.000**
700	2 pc(s).	**7161.700**

Load capacity 100 kg

For component shelf depth mm	Packs of	Model No.
400	2 pc(s).	**7064.000**
500	2 pc(s).	**7065.000**
600	2 pc(s).	**7066.000**
700	2 pc(s).	**7066.700**

1 Assembly bolts
2 Mounting rails
3 Telescopic slides



Cable support

Hinged, with anti-kink device and quick-release fastener
For secure routing of connection cables from the component shelves with telescopic pull-out to the clamping point. Kink-free cable routing in the central part via mobile chain links. The attachment may be released on both sides, thanks to the quick-release fastener.

Material:
– Sheet steel, zinc-plated
– Central part: Plastic

Supply includes:
– Cable support
– 2 mounting brackets
– Assembly parts

For enclosure depth mm	Packs of	Model No.
≤ 600	1 pc(s).	**7163.560**
> 600	1 pc(s).	**7163.565**

Note:
– Max. depth of component shelves = Enclosure depth - 200 mm

Handle

for pull-out component shelves
The component shelves are prepared for the attachment of handles.

Material:
– Die-cast zinc

Surface finish:
– Spray-finished

Packs of	Model No.
2 pc(s).	**5501.730**

Colour:
– Silver grey

Supply includes:
– Assembly parts

Fastening bolts

for slotted component shelves
For non-slip attachment of your components. The bolts are screwed into the longitudinal slots of the component shelf support surface. Consequently, they are infinitely adjustable and can be adapted to suit any appliance.

Packs of	Model No.
4 pc(s).	**7115.000**

Material:
– Steel

Surface finish:
– Clear-chromated

LED system light – Sensationally bright

Optimum illumination

- Innovative LED technology for even more light into the very last corner
- Intelligent lighting, tailored to the geometry of the enclosure, thanks to a special optical cover with Fresnel structure
- Optical cover with two different Fresnel structures
- The cover is easily rotated – to adapt the light distribution to the current installation situation
- Enormous luminous intensity up to 1200 lumens, directed selectively into the enclosure

Simple assembly

- Fast, tool-free assembly thanks to a latching hook system on a 25 mm pitch pattern of holes; simply latch and secure
- Optional screw-fastening also available, or opt for complete flexibility with a magnetic attachment freely positionable inside the enclosure
- May be fitted horizontally and vertically with no loss of space in the enclosure; existing rails and sections can simply be covered
- Lights with motion detectors are equipped with a rotating LED board as standard, allowing the direction of light to be perfectly adapted to any installation situation

Flexible connection

- Rotating connectors support installation in the most confined spaces
- Simple through-wiring based on the plug & play system
- Variants with integral motion detectors eliminate the need for installing separate door-operated switches
- If additionally equipped with a socket, electricity will be available whenever it is needed for maintenance work
- Suitable for immediate, global use with wide-range voltage 100 – 240 V (AC) and 24 V (DC)

New – socket box as a plug-in system

- The alternative to the LED system light with integrated socket
- Easier planning for international projects – same light, but with a country-specific socket
- No additional wiring required, thanks to simple connection technology and integration of the LED system light into the circuit
- Socket modules can be easily replaced to suit the user market via plug and play

LED system light

Baying enclosure system VX25 Page 116 **Free-standing enclosure system VX SE** Page 142 **Compact enclosures AX** Page 84

Benefits:
- Optimum illumination of the entire enclosure
- Optionally with clip, screw or magnetic attachment
- Equipment to suit every application

Material:
- Plastic
- Aluminium

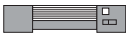
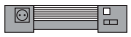
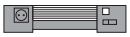
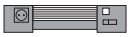
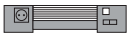
Colour:
- Enclosure: RAL 7016

Protection class:
- II (all-insulated)

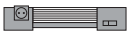
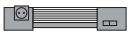
Light colour:
- 4000 K (neutral white)

Supply includes:
- Assembly screws

Note:
- Connection accessories should be ordered separately

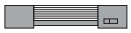
								
Model No.			**2500.300**	**2500.310**	**2500.311**	**2500.312**	**2500.313**	Page
Output (lumens)			1200	1200	1200	1200	1200	
Length (mm)			437	437	437	437	437	
Motion sensor			■	■	■	■	■	
Rated operating voltage	100 – 240 V AC		■	■	■	■	■	
	24 V DC		–	–	–	–	–	
Equipment	Socket		–	D, earthing-pin	GB	F/B	CH	
	90° rotating connector		■	■	■	■	■	
	Adjustable light direction		■	■	■	■	■	
	Adjustable light distribution		■	■	■	■	■	
Approvals	UL/cUL		■	–	–	–	–	
	CSA		■	–	–	–	–	
	CCC		■	–	–	–	–	
	ENEC		■	■	■	■	■	
Installation type	Screw-fastening		■	■	■	■	■	
	Clip attachment		■	■	■	■	■	
	Magnetic attachment to surfaces (accessory)		■	–	–	–	–	
Connection options	Infeed		3-pole	3-pole	3-pole	3-pole	3-pole	
	Through-wiring		3-pole	3-pole	3-pole	3-pole	3-pole	
	Door-operated switch (accessory)		–	–	–	–	–	
Mounting options[1)]	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	
Accessories								
Rail for interior installation AX			see page	see page	see page	see page	see page	989
Mounting bracket			6205.100	6205.100	6205.100	6205.100	6205.100	1000
Mounting kit magnet			2500.490	–	–	–	–	1024
Door-operated switch			–	–	–	–	–	
Door-operated switch, UL			–	–	–	–	–	
Connection accessories								
Infeed, 2-pole			–	–	–	–	–	
Infeed, 2-pole, UL			–	–	–	–	–	
Infeed, 3-pole			2500.400	2500.400	2500.400	2500.400	2500.400	1023
Infeed, 3-pole, UL			2500.500	–	–	–	–	1023
Through-wiring, 2-pole			–	–	–	–	–	
Through-wiring, 2-pole, UL			–	–	–	–	–	
Through-wiring, 3-pole			2500.430	2500.430	2500.430	2500.430	2500.430	1023
Through-wiring, 3-pole, UL			2500.530	–	–	–	–	1023

[1)] The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

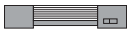
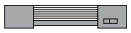
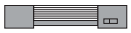
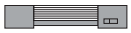
								
Model No.			**2500.314**	**2500.320**	**2500.200**	**2500.210**	**2500.211**	Page
Output (lumens)			1200	1200	900	900	900	
Length (mm)			437	437	437	437	437	
Motion sensor			■	■	–	–	–	
Rated operating voltage	100 – 240 V AC		100 – 125 V AC	–	■	■	■	
	24 V DC		–	■	–	–	–	
Equipment	Socket		USA / CDN	–	–	D, earthing-pin	GB	
	90° rotating connector		■	■	■	■	■	
	Adjustable light direction		■	■	–	–	–	
	Adjustable light distribution		■	■	■	■	■	
Approvals	UL/cUL		■	■	■	–	–	
	CSA		■	–	■	–	–	
	CCC		–	■	■	–	–	
	ENEC		■	–	■	■	■	
Installation type	Screw-fastening		■	■	■	■	■	
	Clip attachment		■	■	■	■	■	
	Magnetic attachment to surfaces (accessory)		–	■	■	–	–	
Connection options	Infeed		3-pole	2-pole	3-pole	3-pole	3-pole	
	Through-wiring		3-pole	2-pole	3-pole	3-pole	3-pole	
	Door-operated switch (accessory)		–	–	■	■	■	
Mounting options[1)]	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	
Accessories								
Rail for interior installation AX			see page	see page	see page	see page	see page	989
Mounting bracket			6205.100	6205.100	6205.100	6205.100	6205.100	1000
Mounting kit magnet			–	2500.490	2500.490	–	–	1024
Door-operated switch			–	–	2500.460	2500.460	2500.460	1024
Door-operated switch, UL			–	–	2500.470	–	–	1024
Connection accessories								
Infeed, 2-pole			–	–	–	–	–	
Infeed, 2-pole, UL			–	2500.410	–	–	–	1023
Infeed, 3-pole			–	–	2500.400	2500.400	2500.400	1023
Infeed, 3-pole, UL			2500.500	–	2500.500	–	–	1023
Through-wiring, 2-pole			–	–	–	–	–	
Through-wiring, 2-pole, UL			–	2500.440	–	–	–	1023
Through-wiring, 3-pole			–	–	2500.430	2500.430	2500.430	1023
Through-wiring, 3-pole, UL			2500.530	–	2500.530	–	–	1023

[1)] The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

LED system light

							
Model No.			**2500.212**	**2500.213**	**2500.214**	**2500.220**	Page
Output (lumens)			900	900	900	900	
Length (mm)			437	437	437	437	
Motion sensor			–	–	–	–	
Rated operating voltage	100 – 240 V AC		■	■	100 – 125 V AC	–	
	24 V DC		–	–	–	■	
Equipment	Socket		F/B	CH	USA / CDN	–	
	90° rotating connector		■	■	■	■	
	Adjustable light direction		–	–	–	–	
	Adjustable light distribution		■	■	■	■	
Approvals	UL/cUL		–	–	■	■	
	CSA		–	–	■	■	
	CCC		–	–	–	■	
	ENEC		■	■	■	■	
Installation type	Screw-fastening		■	■	■	■	
	Clip attachment		■	■	■	■	
	Magnetic attachment to surfaces (accessory)		–	–	–	■	
Connection options	Infeed		3-pole	3-pole	3-pole	2-pole	
	Through-wiring		3-pole	3-pole	3-pole	2-pole	
	Door-operated switch (accessory)		■	■	■	■	
Mounting options[1)]	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	
Accessories							
Rail for interior installation AX			see page	see page	see page	see page	989
Mounting bracket			6205.100	6205.100	6205.100	6205.100	1000
Mounting kit magnet			–	–	–	2500.490	1024
Door-operated switch			2500.460	2500.460	2500.460	2500.460	1024
Door-operated switch, UL			–	–	2500.470	2500.470	1024
Connection accessories							
Infeed, 2-pole			–	–	–	–	
Infeed, 2-pole, UL			–	–	–	2500.410	1023
Infeed, 3-pole			2500.400	2500.400	–	–	1023
Infeed, 3-pole, UL			–	–	2500.500	–	1023
Through-wiring, 2-pole			–	–	–	–	
Through-wiring, 2-pole, UL			–	–	–	2500.440	1023
Through-wiring, 3-pole			2500.430	2500.430	–	–	1023
Through-wiring, 3-pole, UL			–	–	2500.530	–	1023

[1)] The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

							
Model No.			**2500.100**	**2500.104**	**2500.110**	**2500.114**	Page
Output (lumens)			400	400	600	600	
Length (mm)			262	262	337	337	
Motion sensor			–	–	–	–	
Rated operating voltage	100 – 240 V AC		■	■	■	■	
	24 V DC		–	–	–	–	
Equipment	Socket		–	–	–	–	
	90° rotating connector		–	–	–	–	
	Adjustable light direction		–	–	–	–	
	Adjustable light distribution		–	–	–	–	
Approvals	UL/cUL		–	■	–	■	
	CSA		–	■	–	■	
	CCC		■	■	■	■	
	ENEC		■	■	■	■	
Installation type	Screw-fastening		■	■	■	■	
	Clip attachment		■	■	■	■	
	Magnetic attachment to surfaces (accessory)		■	■	■	■	
Connection options	Infeed		2-pole	2-pole	2-pole	2-pole	
	Through-wiring		2-pole	2-pole	2-pole	2-pole	
	Door-operated switch (accessory)		■	■	■	■	
Mounting options[1)]	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	
Accessories							
Rail for interior installation AX			see page	see page	see page	see page	989
Mounting bracket			6205.100	6205.100	6205.100	6205.100	1000
Mounting kit magnet			2500.490	2500.490	2500.490	2500.490	1024
Door-operated switch			2500.460	–	2500.460	–	1024
Door-operated switch, UL			–	2500.470	–	2500.470	1024
Connection accessories							
Infeed, 2-pole			2500.420	–	2500.420	–	1023
Infeed, 2-pole, UL			–	2500.520	–	2500.520	1023
Infeed, 3-pole			–	–	–	–	
Infeed, 3-pole, UL			–	–	–	–	
Through-wiring, 2-pole			2500.450	–	2500.450	–	1023
Through-wiring, 2-pole, UL			–	2500.550	–	2500.550	1023
Through-wiring, 3-pole			–	–	–	–	
Through-wiring, 3-pole, UL			–	–	–	–	

[1)] The internal mounting rail AX and the mounting bracket are required when installing in compact enclosures AX

Rittal – The System.

IT LED system light

see page 1027

Socket box –
The plug-in system

A global player

- Socket modules in all standard, country-specific variants
- UL variant for the North American market
- Socket modules can be easily replaced to suit the user market via plug and play

Simple assembly

- Easy to screw securely to the round holes in the enclosure profile
- No loss of space thanks to perfect integration into the profile
- No obstruction when installing and removing the mounting plate
- Supports flexible installation throughout the entire enclosure and on the tubular door frame

Fast connection

- Connection ready to plug in without any wiring work
- Direct integration of the LED system light into the circuit
- Same connection accessories as for LED system light
- Multiple socket boxes can be cascaded with numerous LED system lights

LED system light

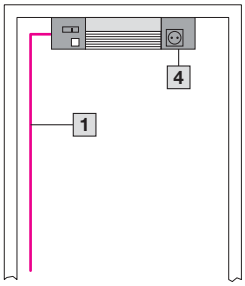
The optimum system solution

for improved flexibility
The socket box turns the LED system light into an all-in-one system, making it possible to easily install additional sockets in six country-specific variants anywhere in the enclosure.

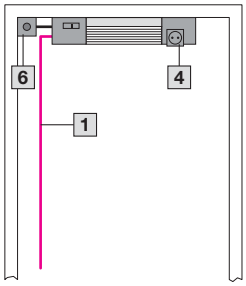
A key advantage of this solution is that the appropriate socket for the end user's particular country can be easily installed via plug and play when the system is delivered. There is no need to replace the LED system light with one that has a suitable socket. All components are ready to plug in and can be installed without manual wiring.

Configuration examples

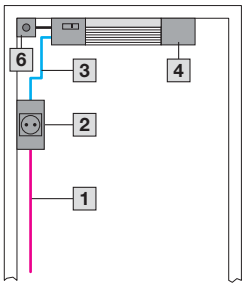
Free-standing enclosure
LED system light with socket
and motion detector



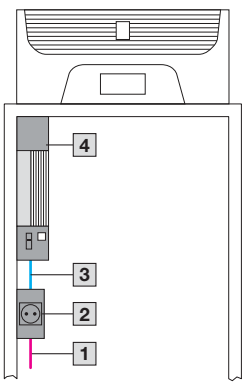
Free-standing enclosure
LED system light with socket
and additional door-operated switch



Free-standing enclosure
LED system light without socket or motion sensor,
but with additional door-operated switch and additional socket box

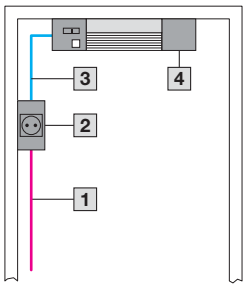


Free-standing enclosure
LED system light fastened to the side with motion detector
and additional socket box

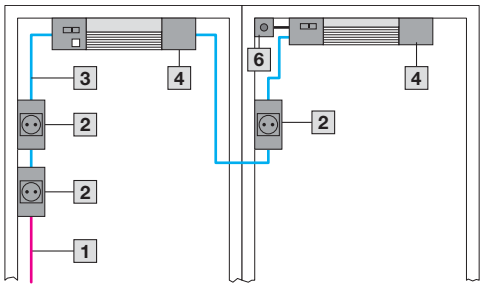


LED system light

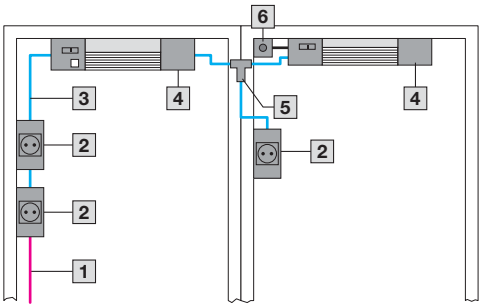
Free-standing enclosure
LED system light with motion detector
and additional socket box



Bayed enclosure with through-wiring via socket box
Enclosure 1:
LED system light with motion detector and additional socket boxes
Enclosure 2:
LED system light without socket or motion detector, but with additional door-operated switch and additional socket box



Bayed enclosure with through-wiring via T distributor
Enclosure 1:
LED system light with motion detector and additional socket boxes
Enclosure 2:
LED system light without socket or motion detector, but with additional door-operated switch and additional socket box



1 Infeed
2 Socket box
3 Through-wiring
4 LED system light (various types)
5 T distributor
3 Door-operated switch with connection cable

Completely UL-compliant construction

The entire system can be constructed in full compliance with UL requirements if UL-approved components (infeed, LED system light, through-wiring and socket box) are used.

LED system light

Socket box

for LED system light
In combination with the LED system light, the socket box creates a flexible modular system for international use.

Benefits:
– Identical connection accessories as for LED system light
– Cascadable with LED system light
– Supports flexible installation throughout the entire enclosure and on the tubular door frame
– No additional wiring required, thanks to simple connection technology and integration of the LED system light into the circuit

Material:
– Plastic

Colour:
– RAL 7016

Supply includes:
– Assembly parts

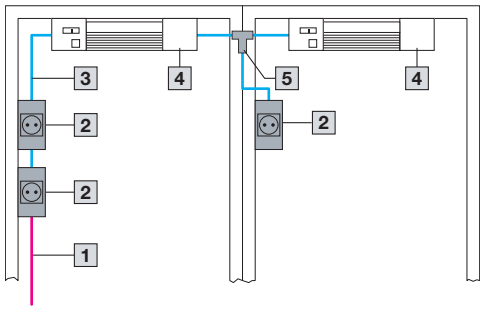
Configuration examples:
See from page 1020.

Socket		UL	Packs of	Model No.
	D, earthing-pin	–	1 pc(s).	**2500.710**
	GB	–	1 pc(s).	**2500.711**
	F/B	–	1 pc(s).	**2500.712**
	CH	–	1 pc(s).	**2500.713**
	US	■	1 pc(s).	**2500.714**
	CN	–	1 pc(s).	**2500.715**

Also required:
– Depending on the application, through-wiring or a 3-pole infeed may be required, see page 1023

Accessories:
– T distributor, see page 1023
– Through-wiring, 3-pole, see page 1023
– Infeed, 3-pole, see page 1023

1 Infeed
2 Socket box
3 Through-wiring
4 LED system light
5 T distributor



Connection accessories

for LED system light

The following components can be used for time-saving, easy installation of the lights:

Accessories:

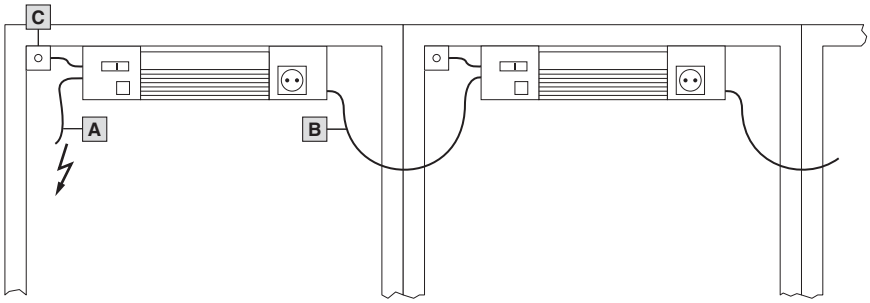
– Cable ties for quick assembly, see page 1061

Connection cable for		ENEC	UL	Length mm	Packs of	Model No.	
						orange	black
1	Infeed, 3-pole, 100 – 240 V AC	■	■	3000	1 pc(s).	**2500.500**	–
	Infeed, 3-pole, 100 – 240 V AC	■	–	3000	5 pc(s).	**2500.400**	–
2	Infeed, 2-pole, 100 – 240 V AC	–	■	3000	1 pc(s).	**2500.520**	–
	Infeed, 2-pole, 100 – 240 V AC	■	–	3000	5 pc(s).	**2500.420**	–
3	Infeed, 2-pole, 24 V DC	■	■	3000	5 pc(s).	–	**2500.410**
4	Through-wiring, 3-pole, 100 – 240 V AC	■	–	200	1 pc(s).	**2500.435**	–
	Through-wiring, 3-pole, 100 – 240 V AC	■	■	1000	1 pc(s).	**2500.530**	–
	Through-wiring, 3-pole, 100 – 240 V AC	■	–	1000	5 pc(s).	**2500.430**	–
5	Through-wiring, 2-pole, 100 – 240 V AC	–	■	3000	1 pc(s).	**2500.550**	–
	Through-wiring, 2-pole, 100 – 240 V AC	■	–	1000	5 pc(s).	**2500.450**	–
6	Through-wiring, 2-pole, 24 V DC	■	■	1000	5 pc(s).	–	**2500.440**

A Connection cable for infeed

B Connection cable for through-wiring

C Door-operated switch with connection cable (not required for LED system light with integral motion sensor)

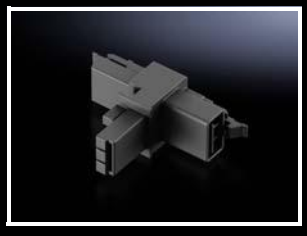


T distributor

with two sockets and one connector

For creating safe, shock-hazard-protected junctions when wiring LED system lights and socket boxes.

Packs of	Model No.
5 pc(s).	**2500.680**



Connection accessories for self-assembly

for LED system light

For individual wiring with commercially available cables.

Connector/jack

Type	Input voltage	UL	Packs of	Model No.
Jack, 3-pole	100 – 240 V	■	5 pc(s).	**2500.600**
Jack, 2-pole	24 V DC	■	5 pc(s).	**2500.610**
Jack, 2-pole	100 – 240 V	■	5 pc(s).	**2500.620**
Connector, 3-pole	100 – 240 V	■	5 pc(s).	**2500.630**
Connector, 2-pole	24 V DC	■	5 pc(s).	**2500.640**
Connector, 2-pole	100 – 240 V	■	5 pc(s).	**2500.650**

LED system light

Door-operated switch

with connection cable for LED system light

Supply includes:
– Assembly parts

	ENEC	UL	Length mm	To fit	Packs of	Model No.
						Black
Connection cable	■	–	800	230 V AC/24 V DC, 1 A	1 pc(s).	**2500.460**
	–	■	800		1 pc(s).	**2500.470**

Door-operated switch

without connection cable for self-assembly
– With normally closed contact and normally open contact
– Custom wiring of the LED system light when combined with the connection cable for door-operated switch
– Can be used to control the various Rittal climate control solutions when combined with standard cables

Technical specifications	UL	Packs of	Model No.
240 V, 6 A 125 V DC, 8 A 24 V, 6 A 24 V DC, 6 A	■	1 pc(s).	**4127.010**

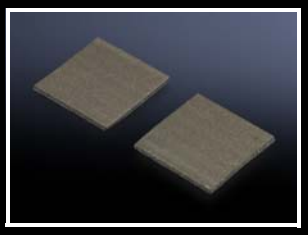
Also required:
– For the installation in TE: Mounting kit **7888.615**

Connection cable

for door-operated switch
for LED system light

Connection cable with pre-assembled connector for simple, fast connection of the LED system light. With open end for cutting the connection cable to the required individual length.

Length mm	UL	Packs of	Model No.
3000	–	1 pc(s).	**2500.660**
3000	■	1 pc(s).	**2500.670**



Mounting kit magnet

for LED system light
For sticking onto the rear of lights without a socket.

Packs of	Model No.
2 pc(s).	**2500.490**

LED compact system light

in 24 V (DC) version

- Max. EMC compatibility
- Protected, as it operates within the safety extra-low voltage range
- Door operated switch connection supported
- Integral through-wiring
- Vertically hinged light cone

Material:
- Light body: Extruded aluminium
- Light cover: Polycarbonate (halogen-free)
- Light ends: PC-ABS

Colour:
- Similar to RAL 7035

Protection category IP to IEC 60 529:
- IP 20

Supply includes:
- LED compact system light with clip and screw mounting kits, assembly parts

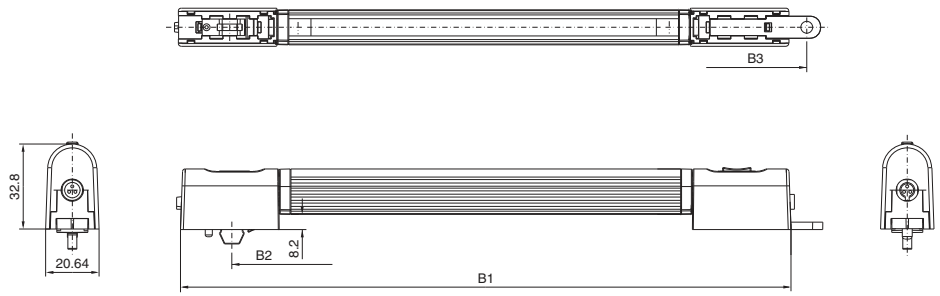
Model No.	4140.810	4140.820	4140.830	4140.840
Rated voltage	24 V (DC) (±10%)			
Number of LEDs	10	20	30	40
Degree of protection	III (SELV)			
Width (B1) mm	230	330	430	530
Mounting distance CLIP (B2) mm	175	275	375	475
Mounting distance, screw attachment (B3) mm	250	350	450	550
Rated current A[1)]	0.04	0.08	0.12	0.16
Switch	Integral on/off/door-operated switch mode			

[1)] Maximum baying up to a total rated current strength of 2 amps

Also required:
- LED connection cable, see page 1026 or
- Door-operated switch with LED connection cable, see page 1026

Accessories:
- Mounting kit magnet for LED compact system light, see page 1025
- Door-operated switch with LED connection cable, see page 1026
- LED connection cable, see page 1026
- Adaptor power pack, see page 1026

Note:
- Only intended for use in enclosures and sealed cases!
- When using on customer-supplied power packs, it is important to obtain the requisite approvals depending on the application.



Mounting kit magnet

for LED compact system light

For reliable adhesion on all sheet steel surfaces.

Packs of	Model No.
2 pc(s).	4140.000

LED compact system light

Connection accessories

for LED compact system light

	Connection cable	Length mm	Packs of	Model No.
1	LED connection cable	3000	1 pc(s).	**4315.800**

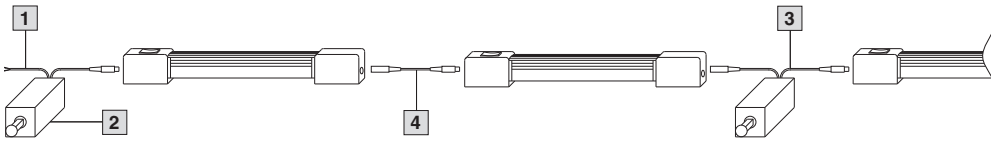
	Door-operated switch	Length mm	Packs of	Model No.
2	With LED connection cable	3000	1 pc(s).	**4315.810**
3	With LED interconnecting cable	1000	1 pc(s).	**4315.820**

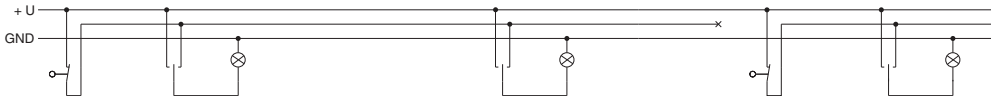
	Interconnecting cable	Length mm	Packs of	Model No.
4	LED interconnecting cable	600	1 pc(s).	**4315.830**
		1000	1 pc(s).	**4315.840**
		3000	1 pc(s).	**4315.850**

	Adaptor power pack	Technical specifications	Packs of	Model No.
5	Adaptor power pack	100 – 230 V/24 V (DC), 1 A	1 pc(s).	**4315.860**

Layout diagram for LED compact system light 24 V (DC):

1 Connection cable
2 Door-operated switch with LED connection cable (open end/cable bush)
3 Door-operated switch with LED interconnecting cable
4 LED interconnecting cable for through-wiring





IT LED system light

Network/server racks VX IT Page 686 **Network racks TE 8000** Page 704 **Wall-mounted enclosures AX/EL** from page 715

Benefits:
- Plug and play compatibility system
- Optimum illumination of the entire IT rack
- Optionally with clip, screw or magnetic attachment
- Equipment to suit every application
- Ready to use immediately, thanks to plug-in connection cable
- Attachment with no loss of U in the rack

Type:
- All-insulated, with internal fuse (T 2A) for operation with Europlug (to CEE 7/16) and IEC 320 connector

Material:
- Plastic
- Aluminium

Colour:
- Enclosure: RAL 7016

Protection class:
- II (all-insulated)

Light colour:
- 4000 K (neutral white)

Supply includes:
- Mounting kit magnet
- Assembly screws

Note:
- Connection accessories should be ordered separately
- The two plug-in connection cables should only be used with the IT LED system light. Use with all other Rittal system lights or external products is inadmissible.
- Cascading of multiple IT LED system lights is not possible

Model No.				
			7859.000	Page
Output (lumens)			600	
Length (mm)			337	
Motion sensor			–	
Rated operating voltage	100 – 240 V AC, 50/60 Hz		■	
Equipment	Socket		–	
	90° rotating connector		■	
	Adjustable light direction		■	
	Adjustable light distribution		■	
Approvals	UL/cUL		■	
	CSA		■	
	CCC		■	
Installation type	Screw-fastening		■	
	Clip attachment		■	
	Magnetic attachment to surfaces		■	
Connection options	Infeed		2-pole	
	Door-operated switch (accessory)		■	
Installation options	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	Directly on the profile	
	TE 8000, IT enclosure based on AX/EL	Mounting kit magnet	■	
Accessories				
Door-operated switch			2500.460	1024
Door-operated switch, UL			2500.470	1024
Also required: Connection accessories				
1	Connection cable with Europlug EN 50075, CEE 7/16, type: H05VV-F, 2 x 0.75 mm², ready for connection, black, length 2 m, packs of 1		**7859.010**	
2	Connection cable with IEC 60 320 C18 connector, UL version, to fit IEC 60 320 C13 sockets type: SJT 2 x 18 60D, ready for connection, black, length 2 m, packs of 1		**7859.020**	

Connection cable with Europlug EN 50075

Connection cable with IEC 60 320 C18 connector

EMC

EMC side panel

for VX
Automatic potential equalisation via assembly components, and a high level of EMC protection thanks to a special EMC seal.

Material:
– Sheet steel, 1.5 mm

Surface finish:
– Magnesium zinc coated, powder-coated on the outside

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Supply includes:
– Assembly parts

For enclosures		Packs of	Model No.
Height mm	Depth mm		
2000	600	2 pc(s).	**8106.760**
2000	800	2 pc(s).	**8108.760**

EMC shielding seal

for VX
For EMC-compliant shielding of the baying point in conjunction with external baying connector.

Protection category IP to IEC 60 529:
– IP 55 in conjunction with external baying connector

Supply includes:
– 8 m

Packs of	Model No.
1 pc(s).	**8800.695**

Also required:
– Baying connector, external, page 912

EMC divider panel seal

for VX
With bayed EMC enclosure systems and when using a zinc-plated divider panel, this seal ensures optimum contact and shield attenuation.

Material:
– PU foam with electrically conductive sheathing

Supply includes:
– 6 m

Packs of	Model No.
1 pc(s).	**4348.500**

Rail

for EMC shielding bracket and strain relief
Combined rail for strain relief and EMC contacting of inserted cables.

Design:
– C rail to accommodate cable clamps
– T-head cut-outs on a 40 mm pitch pattern for cable clamping using cable ties

Benefits:
– Additional contacting on the left or right of the rail via existing holes (9 mm diameter)
– Prepared for tool-free mounting of EMC shielding brackets

Installation options:
– On the horizontal/vertical VX, VX SE, PC enclosure section
– On the mounting plate, may also be fitted without a retaining bracket

Material:
– Extruded aluminium section

Surface finish:
– Chrome-free passivated

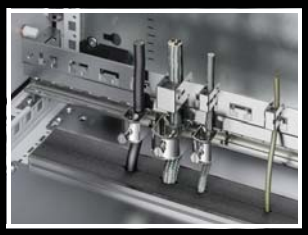
Supply includes:
– 1 rail
– 2 retaining brackets
– Assembly parts

For enclosure width mm	Length mm	Packs of	Model No.
600	553	1 pc(s).	**2388.650**
800	753	1 pc(s).	**2388.850**
1000	953	1 pc(s).	**2388.050**
1200	1153	1 pc(s).	**2388.125**

Also required:
– EMC shielding bracket, see page 1029
– Cable clamps, see page 1060

Accessories:
– Support bracket or spacer, see page 1001
– Quick-assembly block, see page 1001
– Angle piece, see page 1001
– Earth straps, see page 1033
– Earthing braid, see page 1033

Possible alternative:
– C rails 30/15, see page 996



EMC shielding bracket

Quick assembly without the use of tools: Press the EMC shielding bracket against the cable shield and clip into the rail. Diameter changes are compensated in full by the spring of the EMC shielding bracket.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For shield diameter mm	Packs of	Model No.
3 – 10	10 pc(s).	**2388.100**
4 – 15	10 pc(s).	**2388.150**
10 – 20	10 pc(s).	**2388.200**
15 – 28	10 pc(s).	**2388.280**

EMC gland plate

for VX, VX SE
For shielded cables with a maximum diameter of 20 mm. Combined EMC/IP seal provides low-resistance contact between cable shield and gland plate. For all 400, 500, 600 and 800 mm deep enclosures in conjunction with standard gland plates.

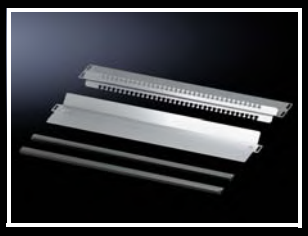
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 1 gland plate with twin hammer-head punching
– 1 sliding base plate
– 2 EMC/IP seals

Width mm	Packs of	Model No.
600	1 pc(s).	**8618.820**
800	1 pc(s).	**8618.821**
1000	1 pc(s).	**8618.822**[1)]
1200	1 pc(s).	**8618.823**[1)]

[1)] For one enclosure half only



EMC

EMC cable gland

The cable sheathing may optionally be interrupted at the contact point or removed completely inside the enclosure. The cable shielding in the enclosure is retained. The supplied lock nut cuts automatically into the paint when screwed down, thus creating a conductive connection.

Protection category IP to IEC 60 529:
– IP 68

Possible alternative:

– Cable gland Hygienic Design, see page 1057

Cable gland, metric

Size	Cable diameter mm	Minimum[1] shield diameter mm	Packs of	**Model No.**
M16	4.5 – 10	3	5 pc(s).	**2843.160**
M20	6 – 12	5	5 pc(s).	**2843.200**
M25	11 – 17	8	5 pc(s).	**2843.250**
M32	15 – 21	10	1 pc(s).	**2843.320**
M40	19 – 28	15	1 pc(s).	**2843.400**
M50	27 – 38	19	1 pc(s).	**2843.500**
M63	34 – 44	30	1 pc(s).	**2843.630**

[1] Minimum shield diameter = cable diameter minus cable sheathing

EMC shield bus

Made of corrosion-proof steel strip, 75 mm² cross section, for cable shield contact.

Supply includes:
– Assembly parts

Rail length mm	Connections	Packs of	**Model No.**
375	10	1 pc(s).	**2413.375**
550	16	1 pc(s).	**2413.550**

EMC earth clamp

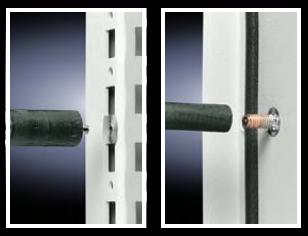
The clamps may be used directly on the device or operating equipment on the mounting plate for cable shield contact.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Size mm	Packs of	**Model No.**
4	50 pc(s).	**2367.040**
6	50 pc(s).	**2367.060**
8	50 pc(s).	**2367.080**
12	50 pc(s).	**2367.120**
16	50 pc(s).	**2367.160**
20	25 pc(s).	**2367.200[1]**

[1] 2 mounting brackets



Contact cutter

The contact cutter enables EMC-compatible preparation of the contact point e.g. for earthing braids. Plastic-bound abrasive with guide pin for round system punchings. With location point for drill, grinder etc.

For	**Model No.**
Frame section	**2414.000**
Earthing bolts[1]	**2414.500**

[1] Not necessary with VX, VX SE

Contact paint

Contact paint prevents the corrosion of conductive, unprotected contact points.

Contents:
– 12 ml

Packs of	**Model No.**
1 pc(s).	**2415.000**

VX25 for areas at risk of earthquakes

The versions listed have been tested and meet the requirements to Telcordia GR 63-CORE. They should be seen as a comparative variable to the customer's own plant, since empty enclosures cannot be certified.

Note:
– Further information can be found in the white paper “Earthquake protection for switchgear systems” on the Internet

VX25 for earthquake zone 1 and 2 to Telcordia GR 63-CORE
VX 8806.000:
W x H x D: 800 x 2000 x 600 mm, see page 125

Fitted with:
– Side panels, see page 901
– Base/plinth VX (corner pieces with base/plinth trim panels, front and rear and side base/plinth trim panels, 100 mm high), see page 881/882

VX25 for earthquake zone 3 to Telcordia GR 63-CORE
VX 8806.000:
W x H x D: 800 x 2000 x 600 mm, see page 125

Fitted with:
– Side panels, see page 901
– Comfort handle VX, see page 937
– Earthquake base/plinth, see page 1032

VX25 for earthquake zone 4 to Telcordia GR 63-CORE
VX 8806.000:
W x H x D: 800 x 2000 x 600 mm, see page 125

Fitted with:
– Side panels, see page 901
– Comfort handle VX, see page 937
– Earthquake base/plinth, see page 1032
– Earthquake kit, see page 1032

VX25 for areas at risk of earthquakes

Earthquake base/plinth

for VX
Height 100 mm

– For stable attachment of the earthquake-resistant enclosure to the subsurface.
– External metric M6 thread for a stable connection to the subsurface from the outside

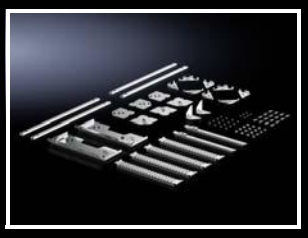
Material:
– Corner piece: Sheet steel, 5 mm
– Trim panels: Sheet steel, 2 mm

Surface finish:
– Powder-coated

Colour:
– RAL 7022

Supply includes:
– 1 pc(s). =
4 corner pieces,
2 depth stays,
1 trim panel each front and rear
Fully assembled.

For enclosures W x D mm	Packs of	Model No.
800 x 600	1 pc(s).	**8601.860**



Earthquake kit

for VX

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 1 pc(s) =
2 side reinforcements, bottom
4 bracing struts, sides
6 gusset plates
2 door safety brackets
4 punched sections with mounting flanges 23 x 64 mm
2 mounting rails 18 x 39 mm
8 angle plates
Mounting plate attachment
Assembly parts

For enclosures W x H x D mm	Packs of	Model No.
800 x 2000 x 600	1 pc(s).	**8618.600**

Earth straps

For configuring a reliable earthing connection with perfect contact
– With ring terminals in M6 and M8 to match the earthing screws
– Length-optimised and ready to install

Enclosure	Connection option		
	Door/cover	Enclosure	Mounting plate
KX	M6	M6	M6
AX	M8	M8	M8
VX	M8	M8	M8
Ex	M8	M8	M8
TP	M6	M8	M8
VX SE	M8	M8	M8
PC	M8	M8	–

Connection	Cross-section mm²	Length mm	Packs of	Model No.
M8 – M8	4	170	5 pc(s).	**2564.000**
M8 – M8	16	170	5 pc(s).	**2565.000**
M8 – M8	25	170	5 pc(s).	**2566.000**
M6 – M6	10	200	5 pc(s).	**2565.100**
M8 – M8	4	300	5 pc(s).	**2567.000**
M6 – M8	10	300	5 pc(s).	**2565.110**
M8 – M8	10	300	5 pc(s).	**2565.120**
M8 – M8	16	300	5 pc(s).	**2568.000**
M8 – M8	25	300	5 pc(s).	**2569.000**
M6 – M6	10	350	5 pc(s).	**2565.050**

Also required:
– Assembly parts for earth straps, see page 1033

Earthing braid

Tin-plated copper, in various lengths and cross-sections with press-fitted contact rings. Earthing braids counteract the current displacement effect at high frequencies, whilst at the same time offering highly flexible connection opportunities.

Approvals:
– UR, cUR

For	Cross-section mm²	Length mm	Packs of	Model No.
M6	10	200	10 pc(s).	**2412.210**
M8	16	200	10 pc(s).	**2412.216**
M8	25	200	10 pc(s).	**2412.225**
M6	10	300	10 pc(s).	**2412.310**
M8	16	300	10 pc(s).	**2412.316**
M8	25	300	10 pc(s).	**2412.325**

Also required:
– Assembly parts for earth straps, see page 1033

Assembly parts

for earth straps

For fastening the earth straps and earthing braids to:
– Horizontal and vertical enclosure sections
– Punched section with mounting flange, 23 x 64 mm
– Punched section without mounting flanges, 23 x 64 mm
– Gland plates

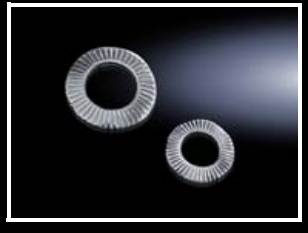
Size	Packs of	Model No.
M6	10 pc(s).	**2570.000**
M8	10 pc(s).	**2559.000**

Also required:
– For mounting on horizontal and vertical enclosure sections: Cage nuts, see page 1002

Contact washer

Serrated contact washers facilitate the secure connection of PE conductors, so there is no need to manually strip paint in the connection area.

Size	Packs of	Model No.
M5	100 pc(s).	**2343.000**
M6	100 pc(s).	**2334.000**
M8	100 pc(s).	**2335.000**



Earthing

Earthing plate

For installation in
– Comfort Panel
– Optipanel
– VX
– VX SE
– PC

One earthing cable can be screw-fastened to the threaded bolt and connected to up to 8 components with earth straps via 6.3 mm flat-pin connectors.

Packs of	Model No.
1 pc(s).	**2570.500**

Supply includes:
– Assembly parts

Central earthing point

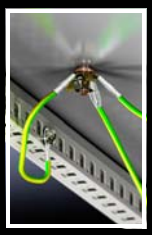
For connecting
– Earth straps
– Earthing braids
to the vertical and horizontal enclosure sections. The connection bracket is connected to the enclosure frame with 2 screws and is securely contacted. Earth connection is via the threaded bolt M8 x 20 mm.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Packs of	Model No.
1 pc(s).	**7829.200**

Supply includes:
– 1 connection bracket
– 2 assembly screws for mounting on the enclosure section
– 2 serrated washers
– 1 nut M8
– 1 contact washer M8
– 1 washer



Potential equalisation star

for 8 mm earthing bolt
The earthing connector is used for simple potential equalisation on an 8 mm earthing bolt, or in conjunction with central earthing point 7829.200. Up to five flat-pin connectors (6.3 mm) may be contacted on one earthing point.

Packs of	Model No.
10 pc(s).	**7548.210**

Supply includes:
– 10 earthing connectors
– Assembly parts

Potential equalisation kit

for VX IT

Central earthing point on the enclosure frame for simple connection of the enclosure to the earthing/ potential equalisation network (rack bonding conductor (RBC) connection point).

Application:
- To create seamless central potential equalisation between all installed components and/or to ensure functional earthing to EN 50 310

Functional principle:
- Contact between all enclosure panels and the enclosure frame as central earthing point plus contact with all installed components to the same potential, via a conductive attachment or separate earth strap

Supply includes:
- 7 earth straps (4 mm^2), for doors and optional side panels
- Central earthing point
- Assembly parts

Packs of	Model No.
1 pc(s).	**5302.027**

Note:
- If a risk assessment of the ultimate application has been carried out by a qualified electrician and no extended risk potential has been identified, no protective earthing measures are required

Earthing extension kits

To supplement the existing earthing or potential equalisation sets for integrating additional installation components into the potential equalisation system. For targeted contact of installation components with the enclosure frame. The earth conductors are pre-assembled with connectors ready for connection and cut to the correct length.

Application:
- For extending the existing potential equalisation set

Packs of	Model No.
1 pc(s).	**7829.150**

Supply includes:
- 8 earth straps, UL style 1015 AWG 12
- Connection accessories

Approvals:
- UL

Potential equalisation kit, Plus version

for VX IT

For improved EMC.

Benefits:
- All enclosure elements are connected via earthing braids to a central, vertical potential equalisation rail (rack bonding busbar, RBB) via the frame structure as central consolidation point

Application:
- Ensures continuous potential equalisation and/or functional earthing
- Improved protection from high-frequency interfering radiation to EN 50 310

Functional principle:
- Potential equalisation rail for central potential equalisation of all installed equipment on the enclosure and components connected to the potential equalisation

Supply includes:
- 6 earthing braids (M8), 10 mm^2, for sheet steel doors, side panels, potential equalisation rail
- Potential equalisation rail, length 1545 mm, for height 1800 – 2000 mm
- Assembly parts

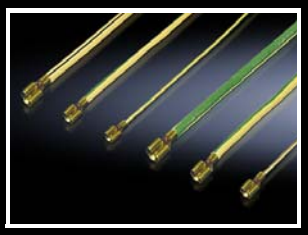
Packs of	Model No.
1 pc(s).	**5302.028**

Note:
- If a risk assessment of the ultimate application has been carried out by a qualified electrician and no extended risk potential has been identified, no protective earthing measures are required
- To ensure an increased shielding effect of the enclosure, use of an enclosure with an all-round sealed body is advisable, similar to that used in IP enclosure variants with a solid sheet steel door at the front (as configuration only), solid roof plate, screw-fastened side panels and solid base

Assembly instruction:
- The specific connection cables between the installed equipment and the potential equalisation rail must be supplied by the user

Accessories:
- Conductor connection clamp, see page 349

Earthing



Complete earthing kit

for TE

For system-compatible earthing of all housing parts on the housing frame. The earth conductors are pre-assembled with connectors ready for connection and cut to the correct length.

Supply includes:
- 4 earth straps, 300 mm
- 4 earth straps, 350 mm
- Assembly parts

Packs of	Model No.
1 pc(s).	**7000.675**

Note:
- If a risk assessment of the ultimate application has been carried out by a qualified electrician and no extended risk potential has been identified, no protective earthing measures are required

PE busbar

699 mm long PE busbar with 42 pre-fitted screws, including terminal clamps up to 6 mm² (fine wire conductors), 10 mm² (single wire or multi-wire conductors) and main terminal clamp up to 35 mm².

Packs of	Model No.
1 pc(s).	**2364.000**

Accessories:
- Cable retainer, see page 1002

Earth rail, horizontal

for VX, VX SE, VX IT

Supply includes:
- Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm
- 20 connection points with M5 screws
- 2 earth connections 25 mm²
- 2 isolators
- Assembly parts

For enclosure width mm	Width mm	Height mm	Length mm	Packs of	Model No.
600, 800	15	5	450	1 pc(s).	**7113.000**

Earth rail, vertical

for VX, VX IT

Easily fitted to the 25 mm DIN pitch pattern of distributors or to the 482.6 mm (19″) mounting angles. The supplied earth conductors facilitate star earthing of the cable clamp straps in the patch panels. The earth terminals are fully adjustable. Current carrying capacity of rail approx. 200 A.

Supply includes:
- Earth rail made from E-Cu 57 to DIN EN 12 163, DIN EN 13 601, 15 x 5 mm
- 16 push-in conductor connection clamps, 1.5 – 16 mm²
- 15 earthing leads 6 mm², L = 500 mm
- Assembly parts

For enclosure height mm	Length mm	Packs of	Model No.
800	545	1 pc(s).	**7541.000**
1000	745	1 pc(s).	**7542.000**
1200	945	1 pc(s).	**7543.000**
1400	1145	1 pc(s).	**7544.000**
1600	1345	1 pc(s).	**7545.000**
1800	1545	1 pc(s).	**7546.000**
2000	1745	1 pc(s).	**7547.000**
2200	1945	1 pc(s).	**7548.000**

Extension kit

for earth rail, vertical

For system-compatible expansion of the star earthing on the vertical potential equalisation rail.

Supply includes:
- Earthing leads 6 mm², L = 500 mm
- Preassembled, with ring terminal and wire end ferrule
- Push-in conductor connection clamps 1.5 – 16 mm²
- Assembly parts

Packs of	Model No.
10 pc(s).	**7549.000**

ESD connection point

Dangerously high potential differences can occur during maintenance or conversion work on the enclosure. To protect sensitive electronic components, this standardised connection point (push-button) provides potential equalisation between service engineer and enclosure. The connection point is directly conductively connected to the enclosure frame via two screws.

Packs of	Model No.
1 pc(s).	**7752.950**

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Supply includes:
- Assembly parts

Earthing

PE/PEN busbar E-Cu

for VX
With integral punchings.

Material:
– E-Cu

Standards:
– DIN EN 13601

Accessories:
– PE/PEN angle bracket, see page 1038
– PE/PEN baying bracket E-Cu, see page 1039

Dimension 30 x 5 mm

For enclosure width mm	Length mm	Hole Ø mm	Packs of	Model No.
400	300	11.5	2 pc(s).	**9686.524**
600	500	11.5	2 pc(s).	**9686.526**
800	700	11.5	2 pc(s).	**9686.528**
1000	900	11.5	2 pc(s).	**9686.520**
1200	1100	11.5	2 pc(s).	**9686.522**

Dimension 30 x 10 mm

For enclosure width mm	Length mm	Hole Ø mm	Packs of	Model No.
400	300	11.5	2 pc(s).	**9686.534**
600	500	11.5	2 pc(s).	**9686.536**
800	700	11.5	2 pc(s).	**9686.538**
1000	900	11.5	2 pc(s).	**9686.530**
1200	1100	11.5	2 pc(s).	**9686.532**

Dimension 40 x 10 mm

For enclosure width mm	Length mm	Hole Ø mm	Packs of	Model No.
400	300	11.5	2 pc(s).	**9686.544**
600	500	11.5	2 pc(s).	**9686.546**
800	700	11.5	2 pc(s).	**9686.548**
1000	900	11.5	2 pc(s).	**9686.540**
1200	1100	11.5	2 pc(s).	**9686.542**

Dimension 80 x 10 mm

For enclosure width mm	Length mm	Hole Ø mm	Packs of	Model No.
400	300	11.5	2 pc(s).	**9686.584**
600	500	11.5	2 pc(s).	**9686.586**
800	700	11.5	2 pc(s).	**9686.588**
1000	900	11.5	2 pc(s).	**9686.580**
1200	1100	11.5	2 pc(s).	**9686.582**

PE/PEN angle bracket

for VX
For attaching the PE/PEN busbar to the enclosure section.

Material:
– Sheet steel, 3.0 mm

Supply includes:
– Assembly parts

For busbar mm	Packs of	Model No.
30 x 5 30 x 10 40 x 10 80 x 10	2 pc(s).	**9686.350**

PE/PEN baying bracket E-Cu

for VX
For connecting the busbars from enclosure to enclosure.

Material:
– E-Cu

Standards:
– DIN EN 13601

Size mm	Length mm	Packs of	Model No.
30 x 5	180	2 pc(s).	**9686.529**
30 x 10	180	2 pc(s).	**9686.539**
40 x 10	180	2 pc(s).	**9686.549**
80 x 10	180	2 pc(s).	**9686.589**

Busbar support

N conductor
For assembling 1-pole neutral or PEN conductors. The busbar holder is mounted onto the enclosure section.

Material:
– Polyamide
– Fire protection corresponding to UL 94-HB

Colour:
– Similar to RAL 7016

Supply includes:
– Assembly parts

For busbar mm	Packs of	Model No.
50 x 10	2 pc(s).	**9686.300**

Also required:
– Busbars E-Cu, see page 342.

Assembly instruction:
– For the installation of max. 4 busbars (sub-conductors) per phase

Accessories:
– Longitudinal connector E-Cu, see page 397

Inserted screw nut M12

Self-holding nuts with knurled ring for busbars E-Cu.

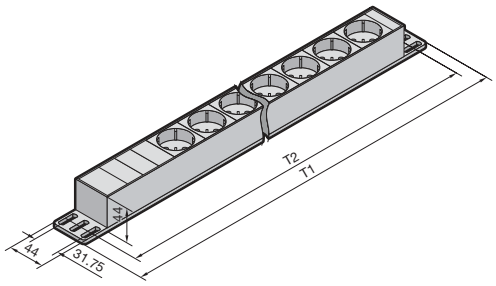
Hole diameter: 14.5 mm

Packs of	Model No.
30 pc(s).	**3591.060**

Socket strips

in an aluminium duct

The socket strips are available in various lengths with different functional elements. Special attention has been devoted to practical, universal fastening: Variable attachment facilities have been created with an angle bracket which may be inserted in four positions. Hence, for example, the 482 mm long socket strip may optionally be mounted on 482.6 mm (19") mounting angles, the 482.6 mm (19") mounting frame, on the enclosure frame, or in the rear section of the wall-mounted distributor. Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm hole pattern. This makes selection much easier, as well as providing additional flexibility and saving on warehousing. Provision has also been made for cable routing of the infeed, and when mounting in the 482.6 mm (19") section there is adequate space to route the infeed between the socket strip and the profile rail without kinks.
The arrangement of the IEC 320 sockets at a 45° angle allows unrestricted use of angular connectors.



Technical specifications:
Earthing-pin socket strips
- Connector type F (CEE 7/3)
- Rated operating voltage: 250 V
- Connection cable: 2 m long H05VV-F3G1.5 without connector, 5 with connector

Belgium/France (UTE) socket strips
- Connector type E (CEE 7/5)
- Rated operating voltage: 250 V
- Connection cable: 2 m long H05VV-F3G1.5 with wire end ferrules

Equipment connector strips (IEC 60 320-1/C13) socket strips
- Rated operating voltage: 250 V
- Input: With C14 connector (H05VV-F3G1.0) or without connector (H05VV-F3G1.5), depending on the variant

Material:
- Aluminium section: Natural anodised
- Socket inserts: Polycarbonate

Supply includes:
- Socket strip
- 2 mounting brackets
- Assembly parts

Standards:
- Earthing-pin socket: DIN 49 440
- IEC 320 socket: EN 60 320-2-2
- Overvoltage protection: DIN EN 61 643-11 (VDE 0675 Part 6-11)

Approvals:
- CE
- RoHS

Note:
- Depending on the application, we recommend use of a charging current reserve to prevent incorrect activation due to starting-current spikes

Earthing-pin connector type

Version	Rated current A	Connection	No. of sockets	Attachment: Frame	Attachment: Wall-mounted distributor, horizontal	Attachment: 482.6 mm (19") level	Length (T1) mm	Mounting dimension (T2) mm[1]	Packs of	Model No.
1 Without rocker switch	16	Cable	3	■	–	–	262.6	232.5	1 pc(s).	**7240.110**
			7	■	■	■	482.6	452.5	1 pc(s).	**7240.210**
			12	■	–	–	658.6	628.5	1 pc(s).	**7240.310**
2 With rocker switch	16	Cable	3	■	–	–	306.6	276.5	1 pc(s).	**7240.120**
			7	■	■	■	482.6	452.5	1 pc(s).	**7240.220**
3 Overvoltage protection, type3 and interference suppressor filter	16	Cable	5	■	■	■	482.6	452.5	1 pc(s).	**7240.230**
			9	■	–	–	658.6	628.5	1 pc(s).	**7240.330**
4 Circuit-breaker, type B, 16 A, 2-pole	16	Cable	5	■	■	■	482.6	452.5	1 pc(s).	**7240.240**
5 UPS strip, connection cable with 10 A IEC 320 connector, type E, with G fuse, 10 A	10	C14	7	■	■	■	482.6	452.5	1 pc(s).	**7240.260**
6 FI switch, 0.03 A, 2-pole, type A	16	Cable	5	■	■	■	482.6	452.5	1 pc(s).	**7240.280**
UTE sockets, type E with earthing pin (Belgium/France)	16	Cable	7	■	■	■	482.6	452.5	1 pc(s).	**7240.510**

[1] Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket

C13 connector type

Version	Rated current A	Connection	No. of sockets	Attachment: Frame	Attachment: Wall-mounted distributor, horizontal	Attachment: 482.6 mm (19") level	Length (T1) mm	Mounting dimension (T2) mm[1]	Packs of	Model No.
For IEC 320 connectors	16	Cable	12	■	■	■	482.6	452.5	1 pc(s).	**7240.200**
For IEC 320 connectors with IEC 320 input	10	C14	9	■	■	■	482.6	452.5	1 pc(s).	**7240.201**

[1] Variable attachment distance within a range of 25 mm, the distance given is hole centre – hole centre of mounting bracket

Socket strip

Earthing-pin, with plastic housing

Robust 8-way earthing-pin socket strip in a plastic housing. The strip may be mounted vertically on the enclosure frame or in the 482.6 mm (19") section. 2.5 U are required for 482.6 mm (19") installation The earthing-pin inserts are arranged at an angle of 45° so that angular connectors are also easily used. The connection cable is attached to a terminal connection (behind a removable cover) in the socket strip. The socket strip has a terminal for an external earthing connection.

Technical specifications:
- Connector type F (CEE 7/3)
- Rated operating voltage: 230 V
- Rated current: 16 A
- Connection cable: Type H05VV-F3G1.5 (black) with wire end ferrules
- Length: 2 m
- Dimensions: W x H x D: 483 x 74 x 45 mm

Socket strip	Packs of	**Model No.**
8-way, earthing-pin	1 pc(s).	**7000.630**

Supply includes:
- Socket strip
- Assembly parts

Material:
- Plastic (grey/black)

Approvals:
- CE
- RoHS

Socket strip

with power measurement

The socket strip 7x CEE 7/3 (type F - earthing-pin socket) with integrated display measures the power consumed by all connected equipment.
The 482.6 mm (19") long socket strip may optionally be mounted on the 482.6 mm (19") mounting angles, on the enclosure frame or in the rear section of wall-mounted distributors. The installation bracket may be mounted in four different positions for variable mounting. Without additional mounting accessories, the socket strip may be inserted into all sections with a 25 mm hole pattern.

Installation options:
- Components with a 25 mm pitch pattern
- 482.6 mm (19") level
- Enclosure frame
- IT rack, at the rear, horizontal (adequate width provided)

Benefits:
- Measurement accuracy of ± 5 %

Functions:
- Measurement of current, voltage, frequency, active power, active energy and phase shift

Material:
- Aluminium section: Natural anodised
- Socket inserts: Polycarbonate

Colour:
- Socket: RAL 7035

Supply includes:
- Socket strip
- 2 mounting brackets
- 3 m connection cable with wire end ferrules
- Assembly parts

Version	No. of sockets	Socket/jack (type)	Height mm	Length mm	Depth mm	Mounting dimension mm	Rated voltage	Phase current A	Packs of	**Model No.**
With display	7	D, earthing-pin (type F, CEE 7/3)	45	482.6	50	464.1	230 V AC	16	1 pc(s).	**7240.301**

Socket strips

Junction box

with multi-functional bracket
The angle bracket can be installed in all network enclosures in a system-compatible design. The junction box serves as a transfer point for the power supply to all equipment (fans, lights and socket strips). As well as being used as a junction box or interchange point, the bracket can also accommodate the enclosure internal thermostat 3110.000 or the hygrostat 3118.000, thanks to its integral holes.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Junction box
– Bracket
– 6 m connection cable 3 x 1.5 mm^2 (flexible)

Packs of	**Model No.**
1 pc(s).	**7280.035**

Socket

– For mounting on support rails TS 35/7.5 and TS 35/15 to EN 60 715
– Uniform screw terminals from one side
– Enclosure width: 45 mm

Technical specifications:
– Rated voltage: 250 V AC
– Rated current: 16 A

Material:
– Polyamide

Colour:
– Grey

Approvals:
– VDE

Version	Packs of	**Model No.**
Earthing-pin/CEE 7/3	2 pc(s).	**2506.120**

Service socket

for enclosure frame attachment/16 A
Integration of a service socket within a separate supply circuit, independently of the IT network and UPS. Simple installation via an angle bracket for attaching to the enclosure frame.

Type: Earthing contact/CEE 7/3

Material:
– Angle bracket: Sheet steel
– Socket: Plastic

Surface finish:
– Angle bracket: Zinc-plated

Supply includes:
– Service socket
– Angle bracket
– Damp-proof socket (IP 44)
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**7280.100**

Energy-Box, 3 U, 482.6 mm (19")

Technical specifications:
- Depth-adjustable top hat rail for installed equipment to DIN 43 880, sizes 1 – 3 (e.g. to accommodate built-in sockets, circuit-breakers etc.)
- Cable clamping at the rear, one N and one PE rail on an insulated plinth.
- Plastic hood including extension cover (UL 94-V0)
- Maximum accommodation capacity of 22 HP (22 x 18 mm = 396 mm).
- Enclosure height: 3 U
- Enclosure depth: 155 mm
- Overall installation depth with C rail: 155 mm
- Dimensions: W x H x D: 483 x 132.5 x 155 mm

Colour:
- RAL 7035

Supply includes:
- Energy-Box with fitted N and PE rails and brush strip
- 4 connection clamps, 35 mm²
- 18 connection clamps, 16 mm²
- 2 blanking covers
- 12 clips for cable strain relief
- Identification strips, self-adhesive

U	Packs of	Model No.
3	1 pc(s).	**7480.035**

Photo shows a configuration example with equipment not included in the scope of supply

Energy-Box, 3 U, 482.6 mm (19")

Pull-out

Technical specifications:
- Depth-adjustable top hat rail for snap-in attachment of installed equipment to DIN 43 880 in sizes 1 – 3 (e.g. to accommodate built-in sockets, circuit-breakers etc.) or entire installation assemblies.
- Cable clamping at rear
- Two power distribution rails with connection clamps on insulated base/plinth
- Plastic hood including extension cover
- Maximum accommodation capacity of 22 HP (22 x 18 mm = 396 mm).
- Enclosure height: 3 U
- Enclosure depth: 223 mm
- Maximum extension: 220 mm
- Dimensions: W x H x D: 483.5 x 132 x 223 mm

Colour:
- RAL 7035

Supply includes:
- Energy-Box with fitted N and PE rails and brush strip
- 4 connection clamps, 35 mm²
- 18 connection clamps, 16 mm²
- 2 blanking covers
- 12 clips for cable strain relief
- Identification strips, self-adhesive

U	Packs of	Model No.
3	1 pc(s).	**7480.300**

Photo shows a configuration example with equipment not included in the scope of supply

Cable entry

Cable entry plate

for VX, VX SE
– Cable entry grommet
– Connector grommet
instead of segments from the standard divided gland plates

Material:
– Sheet steel

Surface finish:
– Zinc-plated

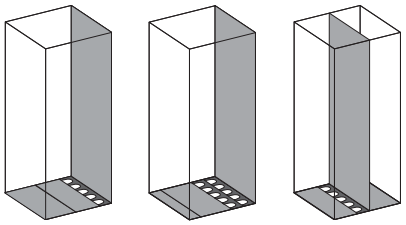
Protection category IP to IEC 60 529:
– IP 55 in conjunction with cable entry grommets or connector grommets

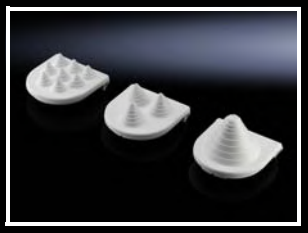
Supply includes:
– Assembly parts

Enclosure width mm	Cut-outs per plate	Packs of	Model No.
600	6	2 pc(s).	**8619.800**
800	8	2 pc(s).	**8619.801**
1000	5	4 pc(s).	**8619.802**
1200	6	4 pc(s).	**8619.803**

Also required:
– Cable entry grommet, see page 1044 or
– Connector grommet, see page 1044

Three examples from a wide range of possibilities
The diagrams show three examples for positioning cable entry plates instead of segments from the three-piece gland plates supplied as standard. In this way, they can be positioned to fit the mounting plate. Thanks to the enclosure symmetry, where dimensions permit, cable entry plates may also be inserted in the enclosure depth, right and left, analogous to the gland plates.





Cable entry grommet

In conjunction with the cable entry plate, supports simple, fast sealing of cables inserted into the base area of enclosures.

Material:
– Body: Polypropylene
– Cover: Thermoplastic elastomer

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Cables per grommet	Max. Ø mm	Packs of	Model No.
8	13	25 pc(s).	**4316.000**
3	21	25 pc(s).	**4317.000**
1	47	25 pc(s).	**4318.000**

Connector grommets

Suitable for cable diameters from 8 to 36 mm.

Material:
– Outer cover: Polypropylene covered with thermoplastic elastomer
– Seal: Cellular rubber

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Packs of	Model No.
10 pc(s).	**4311.000**

Section for cable entry, centre

for VX, VX SE

For top-mounting on gland plates.

Material:
- Extruded aluminium section
- Seal: PU foam
- Cross-section: 30 x 25 mm

Protection category IP to IEC 60 529:
- IP 55 if installed correctly

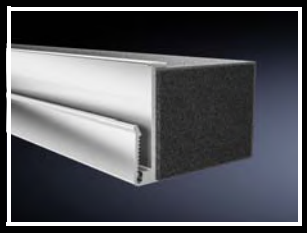
Supply includes:
- Plug-in sections, incl. foam rubber clamp strips

Note:
- You will need two pieces per cable entry point.
- From an enclosure width of 1000 mm, the base assembly is divided into two sections in the width. Two cable entry points (left/right) may be used.

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8618.800**
800	2 pc(s).	**8618.801**
1000	4 pc(s).	**8618.802**
1200	4 pc(s).	**8618.803**
1600	4 pc(s).	**8618.804**

Accessories:

- Cable clamp rail, see page 1059



Section for cable entry, rear

for VX, VX SE

For top-mounting on the gland plate and enclosure frame.

Material:
- Extruded aluminium section
- Seal: PU foam
- Cross-section: 30 x 25 mm

Protection category IP to IEC 60 529:
- IP 55 if installed correctly

Supply includes:
- Plug-in sections, incl. foam rubber clamp strips

Note:
- You will need two pieces per cable entry point.
- From an enclosure width of 1000 mm, the base assembly is divided into two sections in the width. Two cable entry points (left/right) may be used.

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**8618.810**
800	2 pc(s).	**8618.811**
1000	4 pc(s).	**8618.812**
1200	4 pc(s).	**8618.813**
1600	4 pc(s).	**8618.814**

Accessories:

- Cable clamp rail, see page 1059

Foam rubber cable clamp strip

For sealing the cable entry between the gland plates. Particularly suitable for identical cable cross-sections.

Material:
- PU foam
- Cross-section: 30 x 30 mm

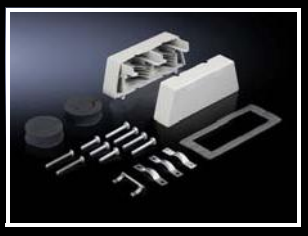
Protection category IP to IEC 60 529:
- IP 55 if installed correctly

Packs of	Model No.
3 m	**2573.000**

Cable entry

EMC gland plates

see page 1029



Connector gland

for connector cut-outs (24-pole)
For inserting 2 pre-assembled cables through the connector cut-out, without dismantling the cable connector.

Cable diameters: 8 – 36 mm

Material:
– Enclosure: Plastic
– Clamps: Sheet steel

Surface finish:
– Clamps: Zinc-plated

Supply includes:
– 1 pc(s). =
2 half-shells, including seals, with fastening clamp

Packs of	Model No.
1 pc(s).	**2400.000**

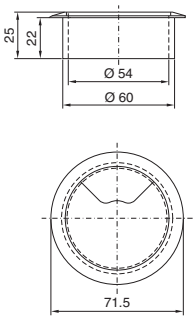
Cable gland

for IW worktops
To fit drilled holes Ø 60 mm. For the entry of cables with pre-assembled connectors, the rotating flap and cover are easily removed.

Material:
– Plastic

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s).	**6902.770**



Edge protection

For covering sharp edges of cut-outs. Provides protection of injuries and prevents damage to inserted cables. The edge protector is suitable for material thicknesses of approx. 1.0 – 2.0 mm, and may be cut to length individually.

Material:
– Plastic PVC

Colour:
– Black

Packs of	**Model No.**
10 m	**7072.100**

Connector gland, small

For pre-assembled cables with connectors. For use with material thickness of up to 4 mm. Strain relief of the pre-assembled cables can be achieved with cable ties.

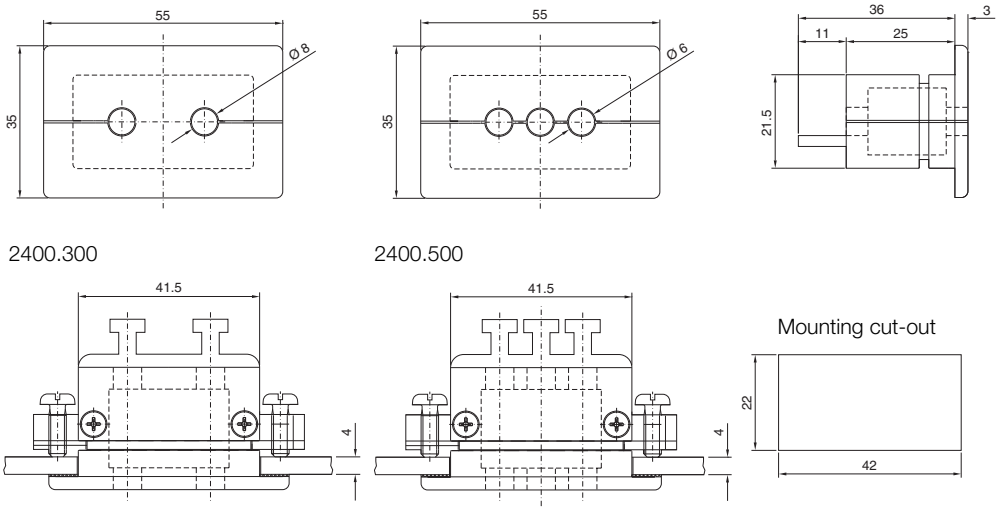
Material:
– Plastic

Colour:
– RAL 9005

Protection category IP to IEC 60 529:
– IP 65 if installed correctly

Supply includes:
– Assembly parts

To fit	Packs of	**Model No.**
2 cables Ø 6 – 8 mm	1 pc(s).	**2400.300**
3 cables Ø 4 – 6 mm	5 pc(s).	**2400.500**



Cable entry

Cable gland module

for support arm connection Ø 130 mm
Use of the mounting cut-out for support arm connection Ø 130 mm, round, with enclosures mounted on the wall, for sealed cable entry. May also be mounted retrospectively with the cables already inserted. Fitted with T-heads for cable clamping. Particularly well-suited to cables with identical cross-sections.

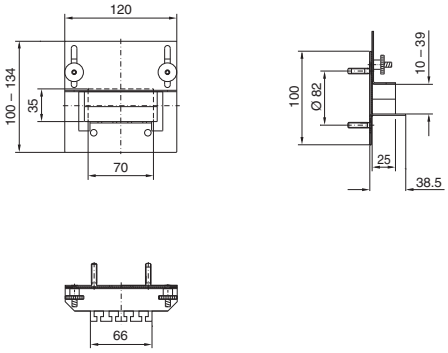
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Protection category IP to IEC 60 529:
– IP 55 with correct installation and cable entry

Packs of	Model No.
1 pc(s).	**6052.500**



Stepped collar

for wall thicknesses from 1.5 to 4.5 mm
For cable entry, simply cut off at the required level to match the cable diameter.

Material:
– Plastic to UL 94-HB

Protection category IP to IEC 60 529:
– IP 54 with careful cable entry

For hole	Sealing range mm	Packs of	Model No.
M20	5 – 16	100 pc(s).	**2899.200**
M25	5 – 21	50 pc(s).	**2899.250**
M32	13 – 26.5	25 pc(s).	**2899.320**
M40	13 – 34	20 pc(s).	**2899.400**

Sealing frame, modular

For the universal use on all surfaces and walls, for feeding through pre-fabricated cables with connectors. Can also be mounted onto 24-pole or 16-pole connector cut-outs.

Material:
– Plastic

Colour:
– Black

Protection category IP to IEC 60 529:
– IP 66

Supply includes:
– Sealing frame
– Locking frame

Number of small seal inserts	For cut-out mm	Model No.
10	113.5 x 46 (24-pole)	**2583.100**
8	91 x 46 (16-pole)	**2583.080**

Also required:
– Inlay for plastic gland plate, modular and sealing frame, modular, see page 1051
– Seal inserts for cable gland plates, modular and sealing frame, modular, see page 1051

Plastic gland plate, modular and sealing frame, modular

The plastic gland plate, modular and the sealing frame, modular, offer extensive flexibility with the entry of assembled and unassembled cables, with or without connectors. Depending on the cable cross-section, suitable modules may be selected to retain the high protection category of IP 66 after cable entry.

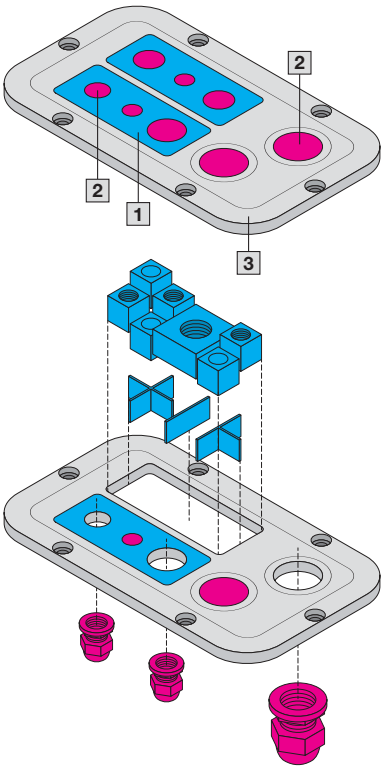
The gland plate design also supports mixed use with standard cable glands and inlays with seal inserts. In this way, cables prefitted with connectors may be safely inserted into the enclosure retrospectively. Seven different gland plate sizes are available. The sealing frame design may be used on any sufficiently large surface.

Plastic gland plate, modular for AX

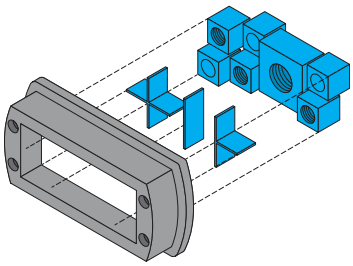
1 Rectangular cut-outs for inlays and seal inserts, see page 1051

2 Metric knockouts for cable glands, see page 1056

3 Plastic gland plates, modular, see page 1050



Sealing frame, modular for AX, KX



Gland plates

Plastic gland plate, modular

with metric knockouts, for AX

Simply pierce the plastic knockouts, and pull through the cable. Additional rectangular cut-outs and reinforcement frame allow the inlays and seal inserts to be installed directly.

Temperature range:
– Suitable for use from -40 °C…+80 °C

Material:
– Plastic to UL 94-V0

Colour:
– RAL 7035

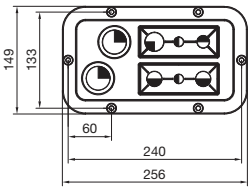
Protection category IP to IEC 60 529:
– IP 66 if installed correctly

Note:
– The applicable size may be taken from the relevant product ordering page

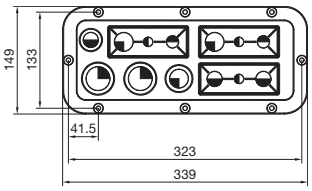
Accessories:
– Inlay, see page 1051
– Seal inserts, see page 1051
– Cable glands, see page 1056

Model No.		2561.200	2562.200	2563.200	2564.200	2565.200	2566.200	2567.200
Packs of		1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Gland plate		Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7
Dimensions W x D mm		256 x 149	339 x 149	447 x 149	534 x 149	301 x 221	401 x 221	436 x 221
	Diameter mm	Number of cable entries						
◐	M12	2	3	4	5	4	4	4
◓	M16	1	2	3	4	4	5	5
◒	M20	2	3	5	6	4	5	5
◑	M25	1	3	3	5	3	4	4
◔	M32	2	2	1	1	1	1	4
◕	M40	–	–	1	1	1	1	1
◕	M50	–	–	–	–	–	1	1
Rectangular cut-outs		2	3	4	6	5	6	6

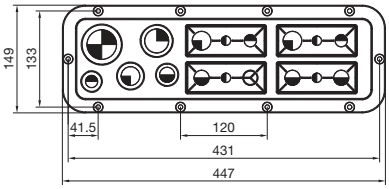
Size 1



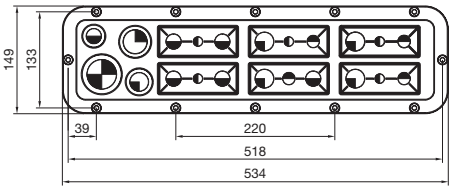
Size 2



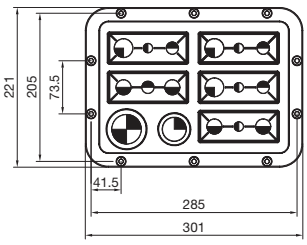
Size 3



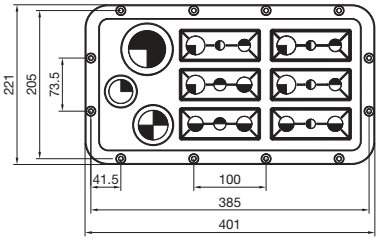
Size 4



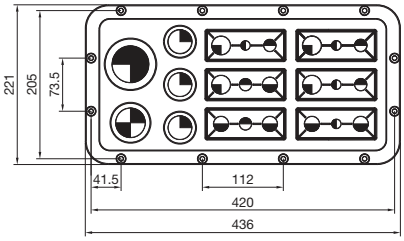
Size 5



Size 6



Size 7



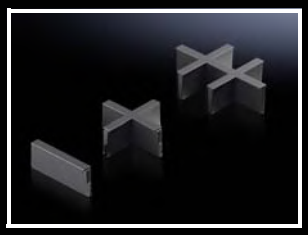
Inlay

for plastic gland plate, modular and sealing frame, modular
Individual inserts to subdivide the cut-outs in the modular plastic gland plate and the modular sealing frame.

Material:
– Plastic

Colour:
– Black

Version	Packs of	Model No.
1 slot	5 pc(s).	**2582.100**
2 slots	5 pc(s).	**2582.200**
4 slots	5 pc(s).	**2582.400**
6 slots	5 pc(s).	**2582.600**



Seal inserts

for plastic gland plate, modular and sealing frame, modular
In conjunction with the inlays, the seal inserts allow individual cable entry, even with preassembled cables.

Material:
– Plastic

Colour:
– RAL 7035

Accessories:

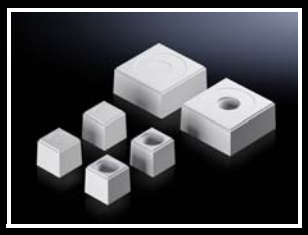
– When using as a gland plate, modular: Locking clip for seal inserts, see page 1051

Seal inserts, small

For cable diameter	Packs of	Model No.
Solid	10 pc(s).	**2580.000**
3 mm	10 pc(s).	**2580.003**
4 mm	10 pc(s).	**2580.004**
5 mm	10 pc(s).	**2580.005**
6 mm	10 pc(s).	**2580.006**
7 mm	10 pc(s).	**2580.007**
8 mm	10 pc(s).	**2580.008**
9 mm	10 pc(s).	**2580.009**
10 mm	10 pc(s).	**2580.010**
11 mm	10 pc(s).	**2580.011**
12 mm	10 pc(s).	**2580.012**
13 mm	10 pc(s).	**2580.013**
14 mm	10 pc(s).	**2580.014**

Seal inserts, large

For cable diameter	Packs of	Model No.
Solid	5 pc(s).	**2580.100**
15 mm	5 pc(s).	**2580.115**
16 mm	5 pc(s).	**2580.116**
17 mm	5 pc(s).	**2580.117**
18 mm	5 pc(s).	**2580.118**
19 mm	5 pc(s).	**2580.119**
20 mm	5 pc(s).	**2580.120**
21 mm	5 pc(s).	**2580.121**
22 mm	5 pc(s).	**2580.122**
23 mm	5 pc(s).	**2580.123**
24 mm	5 pc(s).	**2580.124**
25 mm	5 pc(s).	**2580.125**



Locking clip

for seal inserts
In conjunction with the plastic gland plate, modular, the locking clips ensure the seal inserts are held securely and cannot be accidentally pushed into the enclosure.

Material:
– Plastic

Packs of	Model No.
10 pc(s).	**2583.120**

Gland plates

Plastic gland plate

with membranes, for AX
Simply pierce the plastic with a sharp object, and pull through the cable.

Material:
– Plastic to UL 94-V0

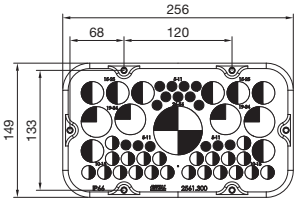
Colour:
– Similar to RAL 7035

Protection category IP to IEC 60 529:
– IP 66 if installed correctly

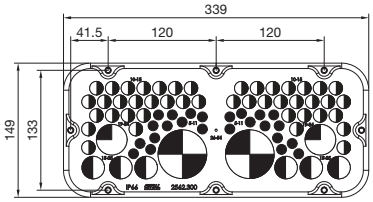
Note:
– The applicable size may be taken from the relevant product ordering page

Model No.		2561.300	2562.300	2563.300	2564.300	2565.300	2566.300	2567.300
Packs of		1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Gland plate		Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7
Dimensions W x D mm		256 x 149	339 x 149	447 x 149	534 x 149	301 x 221	401 x 221	436 x 221
	Diameter mm	Number of cable entries						
●	5 – 11	15	24	36	28	30	30	30
◑	10 – 15	22	44	46	48	40	50	52
◐	15 – 25	8	6	8	8	5	8	8
◔	19 – 34	4	2	2	2	2	2	6
◔	26 – 35	–	–	4	2	–	2	4
◕	26 – 54	1	2	2	2	2	2	2
○	50 – 110	–	–	–	1	1	1	1

Size 1



Size 2



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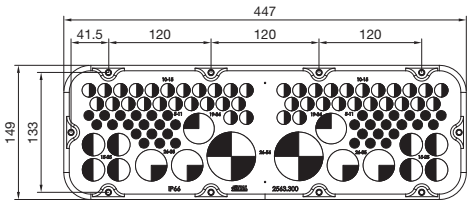

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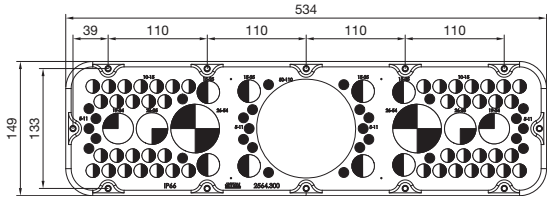

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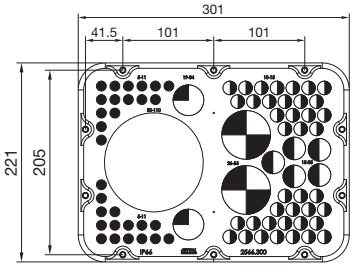

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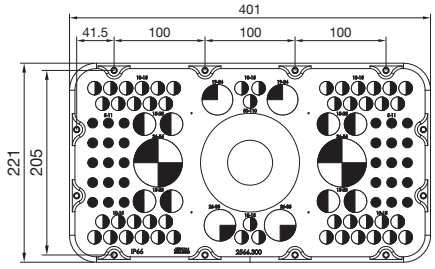

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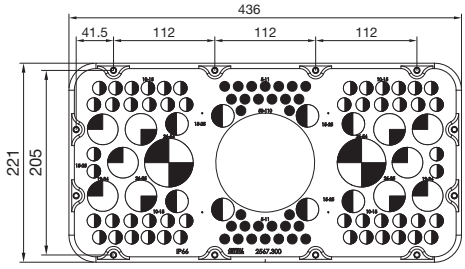


Metal gland plate

with metric knockouts, for AX
Simply knock out the holes for the cable glands using a screwdriver.

Material:
– Sheet steel

Colour:
– RAL 7035

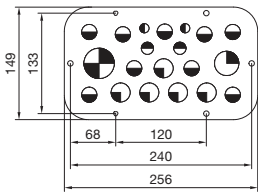
Protection category IP to IEC 60 529:
– IP 66 if installed correctly

Note:
– The applicable size may be taken from the relevant product ordering page

Accessories:
– Cable glands made from polyamide or brass, see page 1056

Model No.		2571.100	2572.100	2573.100	2574.100	2575.100	2576.100	2577.100
Packs of		1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).	1 pc(s).
Gland plate		Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7
Dimensions W x D mm		256 x 149	339 x 149	447 x 149	534 x 149	301 x 221	401 x 221	436 x 221
	Diameter	Number of cable entries						
◐	M12	2	–	4	1	2	2	6
◓	M16	2	6	4	6	10	10	10
◒	M20	9	4	7	8	8	8	8
◑	M25	5	10	15	11	10	18	20
◔	M32	1	2	2	6	2	4	4
◕	M40	1	2	2	4	4	4	4

Size 1



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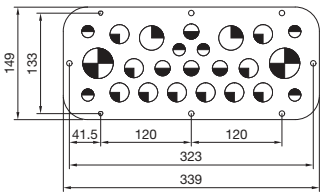
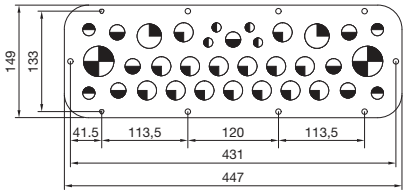


Size 3



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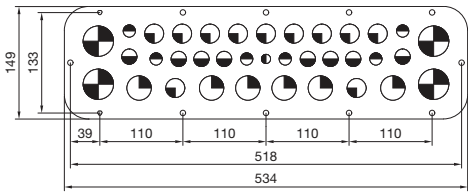

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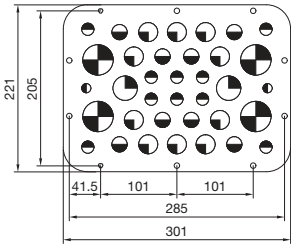
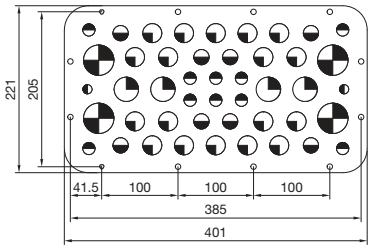
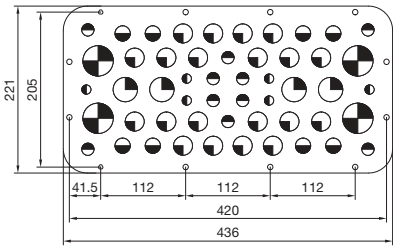


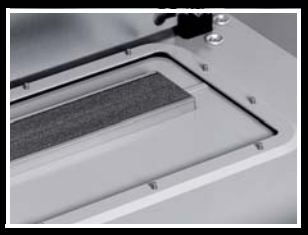
Size 6



Size 7



Gland plates



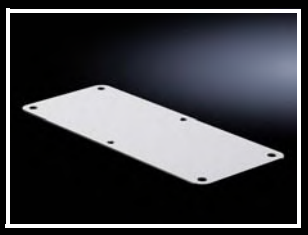
Gland plate

with foam rubber cable clamp strip, for AX
For feeding through pre-fabricated cables when the gland plate has already been fitted to the enclosure. Split gland plates can be sealed using movable plates with a foam rubber cable clamp strip.

Material:
– Gland plate: Sheet steel

Colour:
– RAL 7035

Gland plate size	Dimensions mm	Packs of	Model No.
5	301 x 221	1 pc(s).	**2565.400**
6	401 x 221	1 pc(s).	**2566.400**
7	436 x 221	1 pc(s).	**2567.400**



Metal gland plate

with metric knockouts, for KX
Simply knock out the holes for the cable glands using a screwdriver.

Material:
– Sheet steel

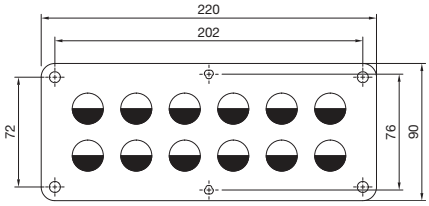
Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55 if installed correctly

Diameter	Packs of	Model No.
M20	1 pc(s).	**1581.200**

Accessories:

– Cable glands made from polyamide or brass, see page 1056



Gland plate

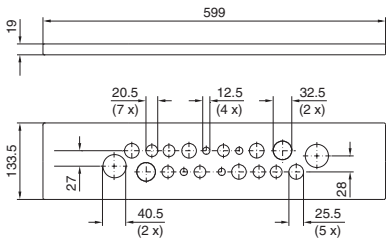
for metric cable glands, for EL
Folded gland plate with foamed-in seal and pre-punched, knock-out holes for metric cable glands M12, M20, M25, M32, M40.

Material:
– Sheet steel, 1.5 mm

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 55

Width mm	Depth mm	Cable entry (quantity x Ø)	Packs of	Model No.
599	133.5	4 x M12 7 x M20 5 x M25 2 x M32 2 x M40	1 pc(s).	**7705.235**



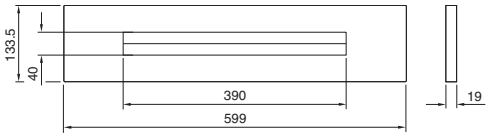
Gland plate

with brush insert, for EL
Folded gland plate with foamed-in seal and plastic brush inserts for simple cable entry.

Material:
– Sheet steel, 1.5 mm

Colour:
– RAL 7035

Packs of	Model No.
1 pc(s).	**7705.035**



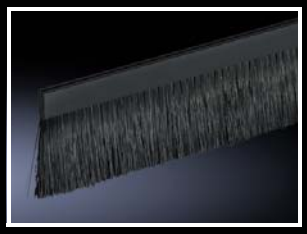
Brush strip

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any given positions in the side panel, rear panel, doors, roof and base plate may be finished off attractively by simply attaching the brush strip.

Material:
– Plastic, UL 94-HB

Packs of	Model No.
2 m	**7072.200**

Technical specifications:
– For metal thickness: 0.6 – 1.5 mm
– Bristle length: 30 mm
– Plastic sheath: 18 mm
– Snap-on surface: 10 mm
– Maximum cut-out height: 38 mm



Brush strip, super-airtight

For individual installation of enclosure panels, gland plates and panels. Cut-outs for cable routing at any position in the side panel, rear panel, doors, roof and base plate.
These special brush strips may be used to create airtight entries for cable sections and conductors. The brush strips arranged in an offset configuration ensure good sealing from the routed cables even with large quantities of cables. In this way, unwanted flow losses may be reduced to a minimum.

Packs of	Model No.
2 x 1 m	**7825.375**

Technical specifications:
– For metal thickness: 1.5 – 2 mm
– Bristle length: 58 mm
– Plastic sheath: 14 mm
– Snap-on surface: 11.5 mm
– Cut-out width: 88 – 90 mm

Material:
– Plastic, fire protection to UL 94-HB

Supply includes:
– 1 brush strip right-hand version
– 1 brush strip left-hand version

Cable glands

Cable gland, brass

Benefits:
– Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage
– Clamping membranes for even tightening and strain relief to protect the cables

Material:
– Brass
– Seal: CR/NBR

Surface finish:
– Nickel-plated

Protection category IP to IEC 60 529:
– IP 68 (5 bar, 30 min.)

Approvals:
– VDE, UR, cUR

Size	Packs of	Model No.
M12 x 1.5	15 pc(s).	**2411.801**
M16 x 1.5	15 pc(s).	**2411.811**
M20 x 1.5	10 pc(s).	**2411.821**
M25 x 1.5	10 pc(s).	**2411.831**
M32 x 1.5	5 pc(s).	**2411.841**
M40 x 1.5	4 pc(s).	**2411.851**
M50 x 1.5	2 pc(s).	**2411.861**
M63 x 1.5	1 pc(s).	**2411.871**

Possible alternative:

– Cable gland Hygienic Design, see page 1057

Cable gland, polyamide

Benefits:
– Because the gland and lock nut are sold together in a single pack, this saves additional ordering and storage
– Clamping membranes for even tightening and strain relief to protect the cables

Material:
– Polyamide 6
– Seal: CR

Colour:
– RAL 7035

Protection category IP to IEC 60 529:
– IP 68 (5 bar, 30 min.)

Approvals:
– VDE, UL, cUL, CSA

Size	Packs of	Model No.
M12 x 1.5	50 pc(s).	**2411.601**
M16 x 1.5	50 pc(s).	**2411.611**
M20 x 1.5	50 pc(s).	**2411.621**
M25 x 1.5	25 pc(s).	**2411.631**
M32 x 1.5	15 pc(s).	**2411.641**
M40 x 1.5	5 pc(s).	**2411.651**
M50 x 1.5	5 pc(s).	**2411.661**
M63 x 1.5	3 pc(s).	**2411.671**

EMC cable gland

see page 1030

Cable gland HD

More compact design and the lock nut is included with the supply.

Applications:
- Manufacturing and packaging of foodstuffs etc.
- Clean room technology (e.g. pharmaceuticals)
- Biotechnology
- Chemical industry

Benefits:
- Smooth, solid exterior surfaces effectively prevent the depositing of harmful micro-organisms
- Much easier, therefore cheaper, cleaning compared with conventional cable glands

Material:
- Cap nut: Stainless steel 1.4305 (AISI 303)
- Seal: Compliant with FDA 21 CFR 177.2600

Protection category IP to IEC 60 529:
- IP 69
- IP X8 (5 bar, 30 min.)

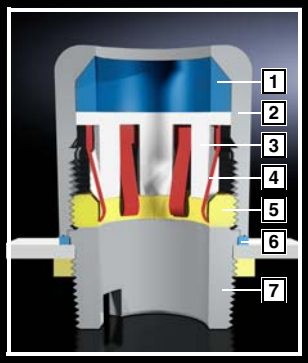
Supply includes:
- HD cable gland
- Lock nut

Standard version

Size	Cable diameter mm	Packs of	Model No.
M12 x 1.5	3 – 6.5	5 pc(s).	**2410.001**
M16 x 1.5	5 – 10	5 pc(s).	**2410.011**
M20 x 1.5	6 – 12	5 pc(s).	**2410.021**
M25 x 1.5	12 – 17	5 pc(s).	**2410.031**

EMC version

Size	Cable diameter mm	Packs of	Model No.
M16 x 1.5	5 – 10	5 pc(s).	**2410.111**
M20 x 1.5	6 – 12	5 pc(s).	**2410.121**
M25 x 1.5	12 – 17	5 pc(s).	**2410.131**

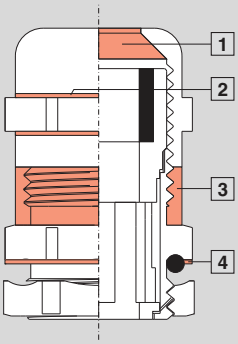


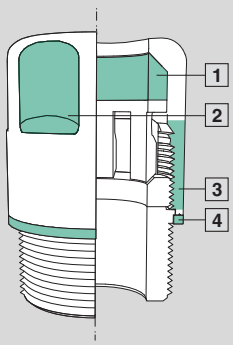
1 Seal
2 Cap nut
3 Gripper jaws
4 Shield spring (EMC version only)
5 Clamping ring
6 Enclosure seal
7 Base with locator for assembly tool

Why use hygienic cable glands?

Critical points with conventional solutions

1 Cable entry in front of seal
2 No minimum radii on the hexagon
3 External threads
4 Gap caused by O-ring on the enclosure surface





Hygienic design features

1 Seal directly at the cable entry
2 Compliance with minimum radii on the hexagon
3 No external threads
4 Flush termination between the cap nut and the enclosure

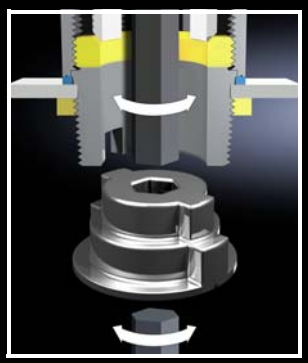
Assembly tool

for cable gland HD

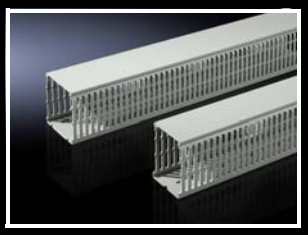
For attaching HD cable glands in an internal thread or using lock nuts. This can be achieved either from the inside or from the outside using an Allen key.

Supply includes:
- 1 pc(s). = Adaptor for sizes from M12 – M25

Packs of	Model No.
1 pc(s).	**2410.290**



Cable routing inside the enclosure



Cable duct

- With special DIN punchings for direct mounting on the enclosure section or on surfaces such as mounting plates.
- If the mounting plate is installed flush with the enclosure frame at the rear (installation position ±0 mm), the horizontally mounted cable ducts are aligned with the cable ducts mounted on the enclosure section.
- Cable duct 50 mm wide for individually sited VX25 enclosures with side panel on the vertical section, on the left and right adjacent to the mounting plate.
- Cable duct 100 mm for mounting on the vertical enclosure frame with bayed enclosures.

Technical specifications:
- Depth: 80 mm
- Length: 2000 mm, may be cut to length
- Bar width: 5.5 mm
- Slot width: 4.5 mm

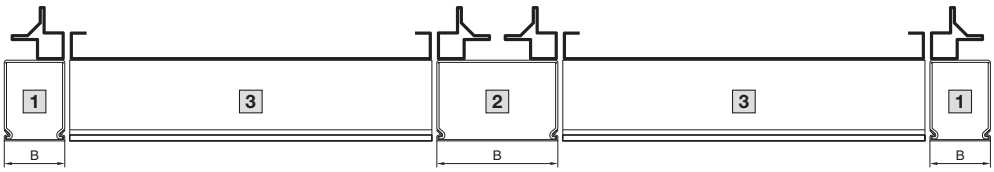
Material:
- Hard PVC
- Flame-resistant, self-extinguishing
- Temperature resistant to +60 °C

Width (B) mm	Packs of	**Model No.**
30	24 pc(s).	**8800.750**
40	20 pc(s).	**8800.751**
50	18 pc(s).	**8800.755**
60	18 pc(s).	**8800.752**
80	12 pc(s).	**8800.753**
100	12 pc(s).	**8800.754**

Colour:
- Similar to RAL 7030

Accessories:
- Metal multi-tooth screw 5.5 x 13 mm, see page 1004
- Isolator cap, see page 1058

1 = W 50 mm
2 = W 100 mm
3 = W 30 to 100 mm



Isolator cap

for screw head
To isolate screw heads within the cable duct.

Material:
- Plastic

Packs of	**Model No.**
100 pc(s).	**8800.770**

Cable routing inside the enclosure

Cable clamp rail

Right-angle section
for VX, VX SE, PC, TP, VX base/plinth
For strain relief with cable entry. Depth-variable mounting on a 25 mm pitch pattern on the horizontal enclosure section or in the base/plinth.

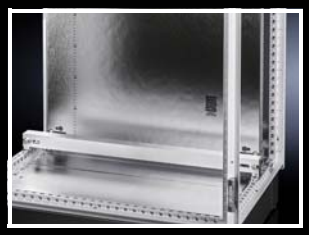
Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Enclosure width mm	Packs of	Model No.
400	2 pc(s).	**8619.400**
600	2 pc(s).	**8619.410**
800	2 pc(s).	**8619.420**
1000	2 pc(s).	**8619.430**
1200	2 pc(s).	**8619.440**
1600	2 pc(s).	**8619.450**
1800	2 pc(s).	**8619.460**

Accessories:
– Base/plinth installation bracket, see page 885



Cable clamp

for cable clamp rails
For fastening the cables to the cable clamp rails.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Plastic insert

For cable diameter mm	Packs of	Model No.
6 – 12	25 pc(s).	**2350.000**
12 – 16	25 pc(s).	**2351.000**
14 – 18	25 pc(s).	**2352.000**
18 – 22	25 pc(s).	**2353.000**
22 – 26	25 pc(s).	**2354.000**
26 – 30	25 pc(s).	**2355.000**
30 – 34	25 pc(s).	**2356.000**
34 – 38	25 pc(s).	**2357.000**
38 – 42	25 pc(s).	**2358.000**
42 – 46	25 pc(s).	**2359.000**
46 – 50	25 pc(s).	**2360.000**

Possible alternative:
– Rail for EMC shielding bracket and strain relief, see page 1029

Cable clamp rail

C rail, for mounting plates
for VX, VX SE, TP
For strain relief with cable entry.
The length of the cable clamp rail is tailored to the width of the mounting plate. The mounting bracket included with the supply supports three different installation situations on the mounting plate:

1 Straight, at a distance of 23 mm from the mounting plate

2 Straight, at a distance of 10 mm from the mounting plate

3 Tilted towards the mounting plate

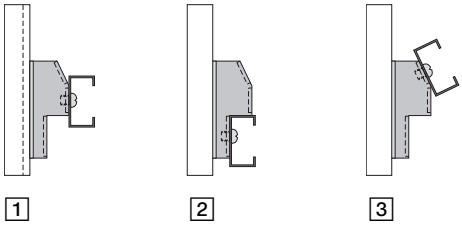
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Two mounting brackets and assembly screws

For enclosure width mm	Length mm	Packs of	Model No.
600	499	1 pc(s).	**5001.080**
800	699	1 pc(s).	**5001.081**
1000	899	1 pc(s).	**5001.082**
1200	1099	1 pc(s).	**5001.083**

Accessories:
– Cable clamp for C rails, see page 1060



Cable routing inside the enclosure

Cable clamping bracket

For installation in command panels with mounting cut-out ▭ 120 x 65 mm and Ø 130 mm. Cable clamping optionally via:
– Cable clamps
  or
– Cable ties 2597.000
– Standard commercially available cable ties

Bracket height = 25 mm with fitted C rail 40 mm

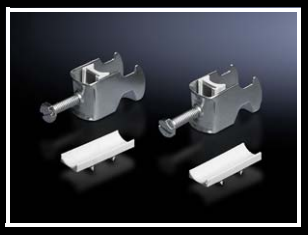
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– C rail and assembly screws

Packs of	Model No.
1 pc(s).	**6052.000**

Accessories:
– Cable clamp, see page 1060
– Cable ties, see page 1061



Cable clamp

for C rail, combination rail
For attaching cables to the C rail.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Plastic insert

For cable diameter mm	Packs of	Model No.
6 – 14	25 pc(s).	**7077.000**
12 – 18	25 pc(s).	**7078.000**
18 – 22	25 pc(s).	**7097.000**
22 – 26	25 pc(s).	**7097.220**
26 – 30	25 pc(s).	**7097.260**
30 – 34	25 pc(s).	**7097.300**
34 – 38	25 pc(s).	**7097.340**
38 – 42	25 pc(s).	**7098.000**
42 – 56	25 pc(s).	**7098.100**
56 – 64	25 pc(s).	**7099.000**

Accessories:
– C rail, see from page 996
– Combination rail, see page 1063

Cable conduit and cable conduit holder

For secure cable routing e.g. from the enclosure or mounting plate to the door. An attachment facility for standard commercially available cable ties is provided on the cable conduit holder, so that cables may be attached upon entry to/exit from the cable conduit.

Material:
– Cable conduit: Polyethylene
– Cable conduit holder: Polyamide

Cable conduit

Internal Ø mm	Packs of	Model No.
16	25 m	**2595.000**
29	25 m	**2589.000**
36	25 m	**2596.000**
48	25 m	**2590.000**

Cable conduit holder

For cable conduit Ø mm	Packs of	Model No.
16	20 pc(s).	**2593.000**
29	20 pc(s).	**2591.000**
36	20 pc(s).	**2594.000**
48	20 pc(s).	**2592.000**

Also required:
– For the installation in AX: Rail for interior installation AX, see page 989 or punched section with mounting flange 14 x 39 mm, see page 952/990

Cable attachment

For professional, secure fastening of cables and conduits.

For fastening:
– Slide into the punched rail 23 x 23 mm,
– Screw-fasten onto the round punchings of the enclosures, as well as all punched rails and punched sections

Material:
– Polyamide

Note:
– As the attachments are bayable, several attachments, even those of different sizes, can be assembled using just 2 screws

For cable diameter from – to mm	Packs of	Model No.
6 – 9	50 pc(s).	**4319.090**
9 – 12	50 pc(s).	**4319.120**
12 – 16	50 pc(s).	**4319.160**
16 – 20	50 pc(s).	**4319.200**

Also required:
– Posidrive raised countersunk screw M5 x 12 mm, 2488.000, for screw-fastening to the round system punchings, see page 1004

Accessories:
– Punched rail 23 x 23 mm, see page 994

Cable tie

The super-fast solution for fastening cables to the enclosure profile or mounting system parts. Simply clip into the round system punchings.

Length mm	Packs of	Model No.
150	100 pc(s).	**2597.000**

Nylon loop

With the nylon loop, secured cables are easily released, allowing individual cables to be added or removed. Ideal for sensitive data cables (fibre-optic/Cu), as it avoids indentations on the cable sheathing. In addition, the nylon loop may be screw-fastened to the round system punchings or attached using a quick-release fastener.

Colour:
– Black

Supply includes:
– Quick-release fasteners

Width mm	Length mm	Max. cable diameter mm	Packs of	Model No.
20	130	30	10 pc(s).	**7072.220**
20	200	50	10 pc(s).	**7072.230**
20	300	90	10 pc(s).	**7072.240**

Also required:
– Screw 2486.600 for screw-fastening to the round system punchings, see page 1004

Nylon tape

For tidy cable routing. Supplied on a reel for cutting to the required length.

Unlike cable ties, nylon tape
– protects the cable sheathing
– is easily reopened and
– is reusable

Length mm	Width mm	Packs of	Model No.
5000	16	1 pc(s).	**2203.400**

Cable routing inside the enclosure

Nylon tape holder

- For simple, fast cable attachment
- Tool-free mounting in the system punchings with 10.5 x 12.5 mm, with a quarter rotation
- Direct use on the horizontal VX frame section, on the support strips and mounting angles of the VX IT 482.6 mm (19") interior installation, on the cable route or on punched sections with mounting flanges
- Length of nylon tape: 400 mm

Material:
- Plastic

Supply includes:
- 10 nylon tapes
- 10 holders

Packs of	**Model No.**
10 pc(s).	**5502.155**

Nylon loop cable holder

Self-adhesive
Universally suitable for use in all network enclosures and server racks, wall-mounted enclosures, mounting plates and gland plates.

Material:
- Woven polyamide 6.6

Colour:
- Black

Size length x width mm	Packs of	**Model No.**
70 x 16	10 pc(s).	**7111.350**

Snap-in cable routing

for clipping into the system punchings
Cable routing suitable for universal use, for tool-free, fast assembly, in two variants:

For locking
- User-friendly opening for cable management via locating points
- For cable diameters 14 – 19 mm
- For system punchings 6.2 mm

For twisting
- User-friendly opening for cable management
- For cable diameters 10.2 – 12.7 mm
- For system punchings 4.7 mm

Material:
- Polyamide 6.6, self-extinguishing to UL 94-V2

Colour:
- Natural

Version	Packs of	**Model No.**
For locking, for system punchings 6.2 mm	10 pc(s).	**7111.300**
For twisting, for system punchings 4.7 mm	10 pc(s).	**7111.310**

Combination rail

for VX IT

Combination of a C rail for cable clamping with cable clamps and a cable guide rail with T-heads for cable routing. The cables can optionally be secured to the combination rail with cable clamps, cable ties or velcro fasteners to be relieved of strain.

Applications:
– For cable routing and strain relief of routed cables on the VX frame structure

Benefits:
– May be installed on either the outside or inside of the enclosure frame

Installation options:
– Direct screw-fastening between the vertical uprights of the enclosure frame

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosures		Packs of	Model No.
Width mm	Depth mm		
600	600	4 pc(s).	**5302.020**
800	800	4 pc(s).	**5302.021**
1000	1000	4 pc(s).	**5302.022**
1200	1200	4 pc(s).	**5302.025**

Accessories:

– Cable ties, see page 1061
– Nylon loop, see page 1061
– Angle bracket for combination rail, see page 1063

Angle bracket

for combination rail

For variable mounting of combination rails between two punched sections with mounting flanges in the enclosure interior.

Applications:
– Cascaded cable routing

Benefits:
– Simple clip attachment or optionally screw-fastened

Packs of	Model No.
8 pc(s).	**5302.038**

Cable clamp rail, depth-variable

for VX IT, TE

For cable routing on the enclosure frame and for strain relief of the routed cables. The cables can be attached to the cable clamp rails with cable ties or velcro fasteners.
The cable clamp rails can be located horizontally at the rear directly onto a 482.6 mm (19") mounting level or in the enclosure depth between two mounting levels. An additional screw fastening secures the unit.
The depth variability of the rails allows their length to be flexibly adapted to the given mounting distance between the two 482.6 mm (19") mounting levels.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Mounting dimension[1] mm	Packs of	Model No.
325 – 575	1 pc(s).	**5302.044**

[1] Mounting dimensions + 152 mm = distance between 482.6 mm (19") levels

Accessories:

– Cable ties, see page 1061
– Nylon loop, see page 1061

Cable routing inside the enclosure

Cable manager

Applications:
– For vertical cable routing and strain relief with network and server applications

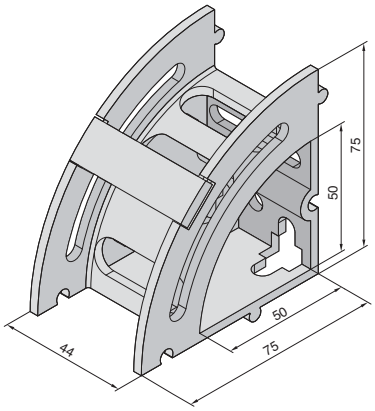
Benefits:
– Simple assembly with tool-free quick-release fastening
– Alternatively suitable for screw-fastening
– Integral multifunctional punching for attaching cable routing components
– Integral mounting holes for fixing the PDUs in a 7 U pitch pattern via a keyhole recess

Material:
– Plastic, UL 94-V0

Colour:
– RAL 9005

Supply includes:
– Mounting clips and assembly parts

	Packs of	Model No.
Maxi-kit	20 pc(s).	**5502.405**



Cable shunting ring

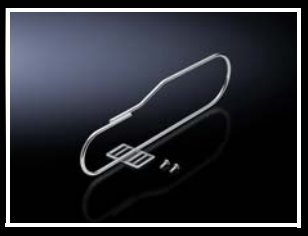
For flexible, system-compatible cable routing at the side of the 482.6 mm (19") mounting angles.

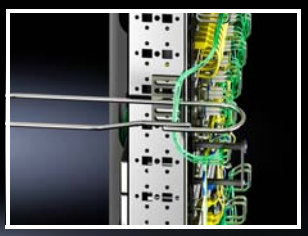
Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Dimensions mm	Packs of	Model No.
125 x 85	10 pc(s).	**7111.900**
125 x 65	10 pc(s).	**7111.000**
85 x 43	10 pc(s).	**7112.000**





Shunting ring

To accommodate large quantities of cables. Shunting ring for side attachment to 482.6 mm (19") sections in 800 mm wide network enclosures. The ring is attached asymmetrically providing approx. 110 mm free space in front of the 482.6 mm (19") level. This allows even large quantities of cables to be effectively managed.

Material:
– Steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Dimensions mm	Packs of	Model No.
330 x 90/70	4 pc(s).	**7220.600**

Fibre-optic shunting rings

Fibre-optic shunting or jumper cables can be inserted into the grooves of the inner body. A rubber ring holds different fibre-optic cables up to Ø 4.5 mm. Strain relief and bending radius are ensured.

Length: 120 mm

Material:
– 2K plastic

Colour:
– Exterior: RAL 7035
– Interior: Black

Supply includes:
– 2 rubber rings
– Baying kit
– Assembly parts

Assembly:
The supplied mounting brackets are suitable for universal use; the fibre-optic cables can be routed to the patch panel in all directions in various mounting positions:

1 At the side, directly on the patch panel

2 In front of the patch panel

4 At the side next to the patch panel

4 Behind the patch panel

Packs of	Model No.
2 pc(s).	**7116.500**

Possible alternative:

– Fibre-optic cable management panel, 1 U, see page 1065

Fibre-optic cable management panel , 1 U

482.6 mm (19")

The four fibre-optic cable shunting rings integrated into the front permit optimum management of individual fibres while allowing for minimum baying radii.

Material:
– Panel: Sheet steel
– Ring: 2K plastic

Colour:
– Panel: RAL 9005
– Cable shunting rings on the outside: RAL 7035, Body: RAL 9005

U	Packs of	Model No.
1	1 pc(s).	**5302.203**

Possible alternative:

– Fibre-optic cable shunting ring, see page 1065

System supports for cable routes

for VX, VX IT

The depth-variable support system may be attached to all 800 – 1200 mm deep VX enclosures with external screw-fastening of the roof plate. The integral system punchings, for screws or captive nuts, support the attachment of most common cable route systems.

– May be combined with VX IT fan mounting plate
– In combination with punched rail, suitable for accommodating additional cable routing rails or pipelines.
– Support height: 102 mm

Material:
– Sheet steel

Surface finish:
– Powder-coated

Colour:
– RAL 7035

Packs of	Model No.
2 pc(s).	**7831.472**

Accessories:

– Metal multi-tooth screws 5.5 x 13 mm, 2486.600, see page 1004

Cable routing inside the enclosure

Cable route

for VX, VX IT

Applications:
– For vertical cable routing and strain relief with network and server applications

Installation options:
– On the VX IT frame between the roof and base frames, all-round
– In 800 mm wide VX IT racks, alternatively, screw-fastening between the upper and lower depth stays is supported

Benefits:
– Simple assembly with tool-free quick-release fastening
– Alternatively suitable for screw-fastening
– Integral multifunctional punching for attaching cable routing components
– Integral mounting holes for fixing the PDUs in a 7 U pitch pattern via a keyhole recess

Material:
– Sheet steel

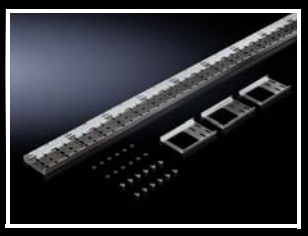
Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	Model No.
145	2000	1 pc(s).	**5302.120**
145	2200	1 pc(s).	**5302.122**
265	2000 – 2200	1 pc(s).	**5302.322**

Accessories:
– Cable ties, see page 1061
– Nylon tape, see page 1061
– Nylon tape holder, see page 1062
– Wall-mounted enclosures, see page 1064
– Cable routing bars, see page 1067



Cable route

for TE

For vertical cable entry at the side of the 482.6 mm (19") mounting frame for TE, independently from the enclosure frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Width mm	Height mm	Packs of	Model No.
100	1700	1 pc(s).	**7000.685**

Surplus cable holder

For fastening at the rear area of the enclosure, or at the side of network enclosures. The surplus cable holder can be attached to all depth stays or to punched sections and rails with a 25 mm pitch pattern – mounting dimension 150 mm.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Colour:
– RAL 7035

Supply includes:
– Assembly parts

W x H x D mm	Packs of	Model No.
280 x 151 x 75	1 pc(s).	**7220.500**

Cable routing bars, 482.6 mm (19") attachment

Units U	Number of connection combs	Packs of	Model No.
4	2	4 pc(s).	**7111.224**
1	8	10 pc(s).	**7111.214**

For structured routing of entire cable bundles, the cable bars may be secured to a variety of different positions inside the enclosure.

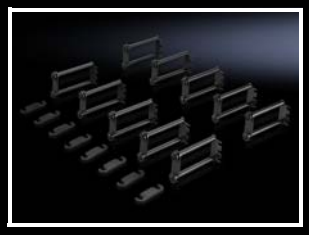
Applications:
– For horizontal cable routing within the distributor level. Thanks to their open mounting holes, they can also be retrospectively slotted onto the 482.6 mm (19") system punchings of the mounting level at any time and secured with the existing mounting screws of the installed components.

Material:
– Support: Sheet steel
– Cable routing bars, connection combs: Plastic UL 94-V0

Colour:
– RAL 9005

Supply includes:
– Cable routing bars
– Connection combs

Note:
– Size of individual chambers (WxD) approx. 34 x 100 mm



Cable routing bars for universal use

Units U	Number of connection combs	Packs of	Model No.
4	2	4 pc(s).	**7111.222**
1	5	10 pc(s).	**7111.212**

For structured routing of entire cable bundles, the cable bars may be secured to a variety of different positions inside the enclosure.

Applications:
– All-round attachment for universal use for vertical and horizontal cable routing inside the enclosure or within the distributor level.

Material:
– Support: Sheet steel
– Cable routing bars, connection combs: Plastic UL 94-V0

Colour:
– RAL 9005

Supply includes:
– Cable routing bars
– Connection combs

Note:
– Size of individual chambers (WxD) approx. 34 x 100 mm

Cable routing 19"

Cable duct

for VX IT, TE

Cable duct for concealed cable routing. Convenient access to the cabling at any time via the hinged duct cover, optionally removable. The duct has cable entry options to the enclosure interior and through the rear panel of the duct. The cable retaining bars enclosed with the duct are snap-mounted onto the cable fingers of the duct with variable depth to support cable routing. Alternatively, the cable duct may also be screw-fastened. For optimum air routing, it may be combined with the brush kit for VX IT.

Benefits:
- Simple assembly with tool-free quick-release fastening
- High packing density due to U-based cable routing
- Suitable for back-to-back baying
- Cable duct may be used as a shielding element to prevent air short-circuits within cold aisle containment
- Lockable cable glands, may be fitted with installation components on the 1 U mounting standard

Material:
- Sheet steel
- Plastic to UL 94-HB

Colour:
- RAL 9005

Supply includes:
- Cable duct
- 2 covers
- 14 cable fingers , 6 U
- 10 cable retaining bars
- Assembly parts

Accessories:
- Brush kit, see page 1068
- Cable management panel with brush strip, see page 1074
- Blanking panel, 482.6 mm (19"), see page 1093

For enclosure	For enclosure width mm	For enclosure height mm	Units U	Packs of	**Model No.**
VX IT TE 8000 Data Rack	800	1800 2000 1900	38	1 pc(s).	**5302.051**
VX IT Data Rack	800	2000 2122	42	1 pc(s).	**5302.052**
VX IT	800	2200	47	1 pc(s).	**5302.053**

Brush kit

for cable duct VX IT

For all-round shielding of the 482.6 mm (19") mounting level and targeted routing of the cold air flow to the installed equipment.

Applications:
- The brush kit is designed for combining two vertical cable ducts on both sides of the 482.6 mm (19") mounting level. The brush kit may be combined with a cable duct and used as an alternative to the air baffle plate.
- A combination with air baffle plate and cable duct is also possible as partial installation

Benefits:
- Simple assembly with tool-free quick-release fastening
- Alternatively suitable for screw-fastening
- Tailored to the maximum enclosure height 47 U for cutting to the required individual length

Functions:
- The brush kit consists of vertical brush strips for the area between the cable duct and side panel as well as horizontal air baffle plates with brush strips for sealing in the roof and floor area on the 482.6 mm (19") mounting level

Installation options:
- 482.6 mm (19") mounting angles, standard
- 482.6 mm (19") mounting angles, dynamic

Material:
- Brush strip: Plastic, UL 94-V0
- Bristles: Plastic, UL 94-HB
- Air baffle plates: Sheet steel, spray finished

For enclosure width mm	Bristle length mm	Packs of	**Model No.**
800	48	1 pc(s).	**5302.036**

Colour:
- RAL 9005

Supply includes:
- 2 brush strips, vertical
- 2 air baffle plates, horizontal, including brush strip
- Assembly parts

Also required:
- Blanking panel, 482.6 mm (19"), see page 1093

Assembly instruction:
- When using the cable duct combined with the brush kit as an air routing component, the cable entry openings in the cable duct must be closed or covered with a cable management panel with brush strip

Accessories:
- Cable management panel with brush strip, see page 1074

Cable finger

for VX IT

For structured cable routing on the 482.6 mm (19") mounting level in 1 U increments.

Benefits:
– Simple, tool-free installation by snap-mounting directly into the 482.6 mm (19") mounting angle

Installation options:
– Installation is possible both on the front and on the side of the mounting angles at the front and rear

Material:
– Plastic to UL 94-V0

Colour:
– RAL 9005

Note:
– Cable routing in conjunction with air baffle plates is supported

Units U	Design	Packs of	**Model No.**
6	for VX IT 482.6 mm (19") mounting angles, dynamic	14 pc(s).	**5302.046**
6	for VX IT 482.6 mm (19") mounting angles, standard	14 pc(s).	**5502.115**

Complete CAT 6 system

for Network Cable Organizer

Modern network infrastructures rely on maximum performance and the greatest possible flexibility in cabling. A useful component here is the Network Cable Organizer (NCO). The robust 1 U mounting frame is pre-configured with 24 cable cassettes and revolutionises conventional structured cabling with 8 times faster installation.

Applications:
– For use in all network racks from a depth of 800 mm.

Benefits:
– Minimise cable chaos – Prevent obstructions to the air circulation in the vicinity of network switches
– Always the right length: Surplus cable lengths – whether CAT 6 or fibre-optic – are simply withdrawn with a spring balancer
– Every cable is 100% tested and supplied with a corresponding measurement record
– Front access – Ideal for retrofitting into racks with a depth of 800 mm or more

Functions:
– Attachment to the front and rear 482.6 mm (19") level

Technical specifications:
– CAT 6 cable STP
– 2 x RJ 45 connectors per cable
– Shielded RJ 45 connector with gold-coated pins
– Usable cable length per cassette: 1.6 m
– ISO/IEC 11801:2002, AWG 36, 100% copper, 250 MHz

Material:
– Mounting frame: Sheet steel
– Cassettes: Stainless steel, plastic (POM)

Colour:
– Mounting frame: RAL 9005

Supply includes:
– Complete CAT 6 system
– 24 CAT 6 cassettes
– Installation kit
– Assembly parts

Accessories:
– Mounting frame, see page 1070
– Blanking cover, see page 1071
– Identification labels, see page 1071

Units U	Width mm	Height mm	Depth mm	Colour	Operating temperature range	Packs of	**Model No.**
1	450	44	600	Cable: black	+10 °C...+45 °C	1 pc(s).	**7044.110**
1	450	44	600	Cable: blue	+10 °C...+45 °C	1 pc(s).	**7044.120**
1	450	44	600	Cable: red	+10 °C...+45 °C	1 pc(s).	**7044.130**
1	450	44	600	Cable: yellow	+10 °C...+45 °C	1 pc(s).	**7044.140**
1	450	44	600	Cable: green	+10 °C...+45 °C	1 pc(s).	**7044.150**
1	450	44	600	Cable: violet	+10 °C...+45 °C	1 pc(s).	**7044.160**
1	450	44	600	Cable: white	+10 °C...+45 °C	1 pc(s).	**7044.170**

Cable routing 19"

Mounting frame

for Network Cable Organizer
Robust 1 U mounting frame for 24 cable cassettes. For individual configuration of the Network Cable Organizer.

Applications:
- For use in all network racks from a depth of 800 mm.
- Attachment to the front and rear 482.6 mm (19") level

Benefits:
- Minimise cable chaos – Prevent obstructions to the air circulation in the vicinity of network switches
- Always the right length: Surplus cable lengths – whether CAT 6 or fibre-optic – are simply withdrawn with a spring balancer
- Front access – Ideal for retrofitting into racks with a depth of 800 mm or more

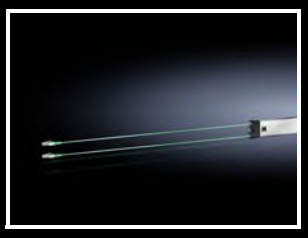
Material:
- Mounting frame: Sheet steel

Colour:
- Mounting frame: RAL 9005

Supply includes:
- Robust, 1 U sheet steel mounting frame for 24 cable cassettes
- Installation kit
- Assembly parts

Accessories:
- Blanking cover, see page 1071
- Identification labels, see page 1071
- CAT 6 cassettes, see page 1070
- Fibre-optic cassettes, see page 1071

Units U	Width mm	Height mm	Depth mm	Design	Operating temperature range	Packs of	**Model No.**
1	450	44	600	Item is configurable, options available for selection	+10 °C...+45 °C	1 pc(s).	**7044.010**



CAT 6 cassettes

for Network Cable Organizer
CAT 6 cassettes for self-configuration in the complete Network Cable Organizer system and for independent assembly in the Network Cable Organizer mounting frame.

Applications:
- Network Cable Organizer
- Mounting frame

Material:
- Cassettes: Stainless steel, plastic (POM)

Colour	Packs of	**Model No.**
Cable: black	3 pc(s).	**7044.113**
Cable: blue	3 pc(s).	**7044.123**
Cable: red	3 pc(s).	**7044.133**
Cable: yellow	3 pc(s).	**7044.143**
Cable: green	3 pc(s).	**7044.153**
Cable: violet	3 pc(s).	**7044.163**
Cable: white	3 pc(s).	**7044.173**

Fibre-optic cassettes

for Network Cable Organizer
Fibre-optic cassettes for Network Cable Organizer mounting frame.

Benefits:
– Always the right length: Surplus cable lengths – whether CAT 6 or fibre-optic – are simply withdrawn with a spring balancer
– Every cable is 100% tested and supplied with a corresponding measurement record
– Secure locking – Each cable cassette has a cable attachment to avoid mechanical strain on the cable

Material:
– Cassettes: Stainless steel, plastic (POM)

Cable version	Colour	Packs of	Model No.
Connector type 1: LC duplex / connector type 2: LC duplex Fibre-optic cable, OS2 RBS 9 µ/125 µ Single mode, ISO/IEC 11801 EN 50173	Cable: yellow	3 pc(s).	**7044.210**
Connector type 1: LC duplex / connector type 2: SC duplex Fibre-optic cable, OS2 RBS 9 µ/125 µ Single mode, ISO/IEC 11801 EN 50173	Cable: yellow	3 pc(s).	**7044.211**
Connector type 1: LC duplex / connector type 2: LC duplex Fibre-optic cable, OM3 RBS 50 µ/125 µ Multi mode, ISO/IEC 11801 EN 50173	Cable: aqua	3 pc(s).	**7044.230**
Connector type 1: LC duplex / connector type 2: SC duplex Fibre-optic cable, OM3 RBS 50 µ/125 µ Multi mode, ISO/IEC 11801 EN 50173	Cable: aqua	3 pc(s).	**7044.231**
Connector type 1: LC duplex / connector type 2: LC duplex Fibre-optic cable, OM4 RBS 50 µ/125 µ Multi mode, ISO/IEC 11801 EN 50173	Cable: violet	3 pc(s).	**7044.240**
Connector type 1: LC duplex / connector type 2: SC duplex Fibre-optic cable, OM4 RBS 50 µ/125 µ Multi mode, ISO/IEC 11801 EN 50173	Cable: violet	3 pc(s).	**7044.241**

Blanking cover

for Network Cable Organizer
For covering unused slots in the Network Cable Organizer.

Material:
– Plastic POM

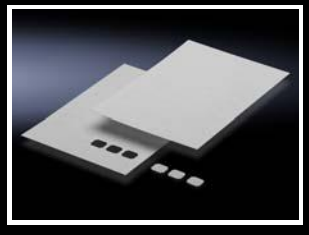
Packs of	Model No.
10 pc(s).	**7044.020**

Identification labels

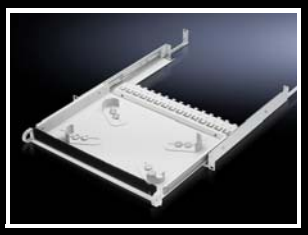
for Network Cable Organizer
Identification labels for Network Cable Organizer.

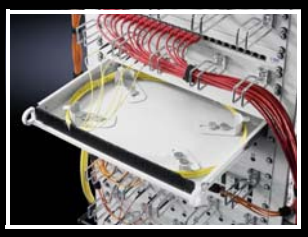
Supply includes:
– 2 DIN A5 sheets of 48 labels

Design	Packs of	Model No.
White, on DIN A5 sheet	1 pc(s).	**7044.178**



Cable routing 19"





Drawer 482.6 mm (19")

to accommodate surplus cables

The 1 U drawer offers a convenient opportunity for storing surplus cables in an organised, compact and secure way within the 482.6 mm (19") levels.

Applications:
- May be fitted between two 482.6 mm (19") levels
- For mounting on L-shaped mounting angles, cranked mounting angles or mounting frames

Benefits:
- With brush strip at the front for cable entry
- T-head rail in the rear section for cable clamping
- Ring-shaped kink-free routing of the conductors on adjustable elements in the interior

Material:
- Sheet steel

Colour:
- RAL 7035

Supply includes:
- Drawer
- Telescopic slides
- Assembly parts

Units U	Distance between levels mm	Packs of	Model No.
1	435 - 750	1 pc(s).	**7063.200**

Cable management panel

with plastic rings

For horizontal management of the patch cables, with 5 cable shunting rings.

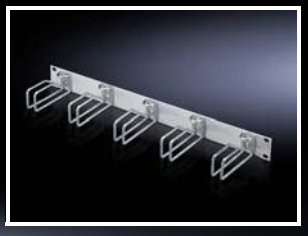
Width:
- 482.6 mm

Material:
- Panel: Sheet steel
- Ring: Plastic UL 94-V0

Supply includes:
- Cable management panel
- Cable shunting rings (supplied loose)

Note:
- The sizes given are external dimensions.

Units U	Ring size mm	Colour	Packs of	Model No.
1	70 x 44	RAL 9005	1 pc(s).	**7159.017**



Cable management panel

with steel rings

For horizontal management of the patch cables, with 5 cable shunting rings.

Width:
- 482.6 mm

Material:
- Panel: Sheet steel
- Ring: Steel

Surface finish:
- Panel: Spray-finished
- Ring: Zinc-plated

Note:
- The sizes given are external dimensions.

Units U	Ring size mm	Colour	Packs of	Model No.
1	105 x 43	RAL 7035	1 pc(s).	**7257.035**
1	55 x 43	RAL 7035	1 pc(s).	**7257.200**
2	125 x 85	RAL 7035	1 pc(s).	**7257.100**
1	105 x 43	RAL 9005	1 pc(s).	**7257.005**
1	55 x 43	RAL 9005	1 pc(s).	**5502.205**
2	125 x 85	RAL 9005	1 pc(s).	**7257.105**

Cable management panel

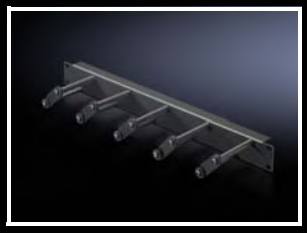
with cable routing bars

For horizontal management of the patch cables with 5 cable routing bars. Opening the individual cable routing bars allows user-friendly modification and extension of the cabling.

Width:
– 482.6 mm

Material:
– Panel: Sheet steel, spray finished
– Cable routing bars: Plastic

Units U	Bar depth mm	No. of bars/ U	Colour	Packs of	Model No.
1	100	5	RAL 9005	1 pc(s).	**5502.225**



Cable management panel

with front flap

The cable routing chamber has cut-outs from above, into which the patch cables can be inserted. The cable management panel is equipped with a flap and quick-release fasteners at the front, for optimum access to the cables. From the rear, the cables can be inserted via a cut-out with brush strips.

Width:
– 482.6 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Surface finish	Units U	Bar depth mm	Colour	Packs of	Model No.
Spray-finished	2	100	RAL 9005	1 pc(s).	**5502.235**

Accessories:

– Cable clamp rail, see page 1063

Cable routing channel

482.6 mm (19")

To hold the patching cables.

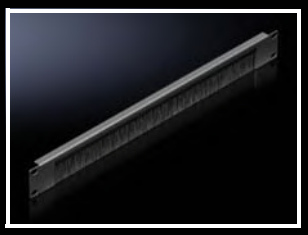
Width:
– 482.6 mm

Material:
– Sheet steel

Surface finish:
– Spray-finished

Surface finish	Units U	Depth mm	Colour	Packs of	Model No.
Spray-finished	1	85	RAL 9005	1 pc(s).	**5502.245**

Cable routing 19"



Cable management panel with brush strip

482.6 mm (19")

For convenient, simple cable routing between two areas separated by a 482.6 mm (19") mounting level, for example, between the front and rear areas of the 482.6 mm (19") mounting level.

Applications:
– For locking and simultaneous cable routing in installation zones to the 1 U, 482.6 mm (19") mounting standard

Benefits:
– To make the cable entry larger, two panels are easily combined with one another

Width:
– 482.6 mm

Material:
– Sheet steel
– Brush strip: Plastic, UL 94-HB

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Units U	Packs of	Model No.
1	1 pc(s).	**5302.202**

Accessories:
– Cable clamp rail, see page 1063

Cable tray, depth-variable

for VX IT, TE 8000

For protected cable routing between the front and rear installation area.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Surface finish	Mounting dimensions mm	Packs of	Model No.
Spray-finished	350 - 550	1 pc(s).	**5302.043**

Combination rails

for 482.6 mm (19")

The combination rail offers a functional combination of a C rail for cable clamping with cable clamps and a cable guide rail with T-heads for cable routing using cable ties or nylon loops in a rail system.

Applications:
– For cable routing and strain relief on the 482.6 mm (19") level

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts for the combination rail, without assembly parts for fixing the cables

Height U	Packs of	Model No.
1	4 pc(s).	**5302.026**

Accessories:
– 482.6 mm (19") fastener, 1 U, see page 1097
– Cable clip, see page 1060
– Cable ties, see page 1061
– Nylon loop, see page 1061

Swing frame, small

for VX, VX SE, AX
for 600 and 800 mm wide enclosures
For mounting 482.6 mm (19") equipment.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– 1 cam with double-bit lock insert
– 2 x 130° hinges
– Assembly parts

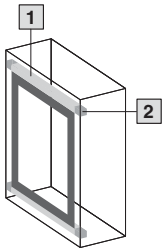
U	For enclosure/ housing	From enclosure height mm	Packs of	Model No.
3	VX, VX SE, AX	380	1 pc(s).	**8619.500**
6		600	1 pc(s).	**8619.510**
9		600	1 pc(s).	**8619.520**
12		760	1 pc(s).	**8619.530**
15	VX, VX SE	–	1 pc(s).	**8619.540**
18		–	1 pc(s).	**8619.550**

Note:
– For the installation in baying enclosure system VX, VX SE, see page 1076

Also required:
– The swing frame stay is required to lock the open swing frame 8619.270, see page 1078

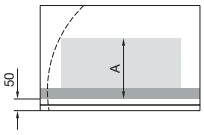
Accessories:
– 482.6 mm (19") fastener, 1 U, 2090.000, see page 1097

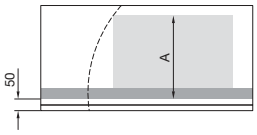
For mounting in compact enclosures AX, the following components are also required:



		For enclosure width mm		Page
1 Installation kit	1 pc(s).	600	800	
		8619.600	8619.610	1076
2 Mounting kit AX	4 pc(s).	2034.010	2034.010	1076

Max. installation depth for compact enclosures AX





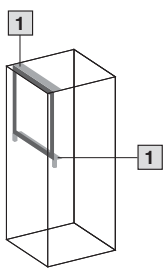
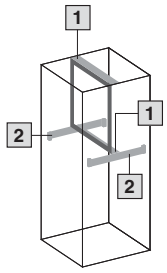
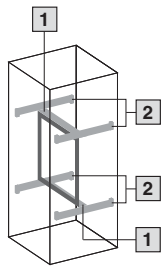
Enclosure dimensions mm		A = max. installation depth mm with internal mounting	
Width	Depth	Centre	Side
600	210	130	–
600	250	170	–
600	350	220	–
600	400	220	–
600	500	–	–
600	600	–	–
600	800	–	–
800	300	210	210
800	400	310	310
800	500	–	–
800	600	–	–
800	800	–	–

Swing frames

Swing frame, small

for VX, VX SE, AX
for 600 and 800 mm wide enclosures

For the installation in baying enclosure system VX, VX SE, the following components are also required:

Installation[1]	Front, top/bottom	Set back, top/bottom	Set back/front, centre
			

			For enclosure width mm		Page
1 Installation kit		1 pc(s).	600	800	
			8619.600	8619.610	1076
2 Punched section with mounting flange 23 x 64 mm, 2 or 4 pc(s). required	For enclosure depth mm				
	400	4 pc(s).	8617.110		991
	500	4 pc(s).	8617.120		991
	600	4 pc(s).	8617.130		991
	800	4 pc(s).	8617.140		991

[1] For the installation in VX SE, the adaptor rail VX is required, see page 995

Note:
Product information, see page 1075

Installation kit

for swing frame, small, and partial mounting plate
For mounting the small swing frame in AX, VX, VX SE or a partial mounting plate (in conjunction with a hinge for partial mounting plates).

Installation options:
- In VX, VX SE
  - Directly on the enclosure section in the foremost position
  - In conjunction with punched section with mounting flange 23 x 64 mm, offset in the depth

Load capacity:
- Up to 1500 N

Material:
- Sheet steel

Surface finish:
- Nickel-plated

Supply includes:
- Assembly parts

For enclosure width mm	Packs of	**Model No.**
600	1 pc(s).	**8619.600**
800	1 pc(s).	**8619.610**

Also required:
- For the installation in compact enclosures AX: Mounting kit AX, see page 1076
- For the installation in standalone rack VX SE: Adaptor rail VX, see page 995

Mounting kit AX

for installation kit for swing frame, small
For mounting the small swing frame in compact enclosures AX.

Supply includes:
- 4 mounting brackets

Note:
- 1 pack is sufficient for mounting one small swing frame

Packs of	**Model No.**
1 pc(s).	**2034.010**

Swing frame, large

for VX, VX SE
for 600, 800 and 1200 mm wide enclosures
For mounting 482.6 mm (19") equipment.

Material:
– Sheet steel

Surface finish:
– Frame: Zinc-plated
– Trim panels: Spray finished

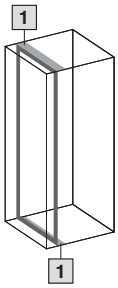
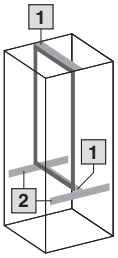
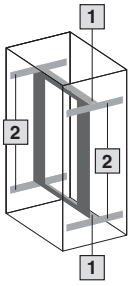
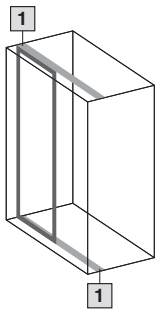
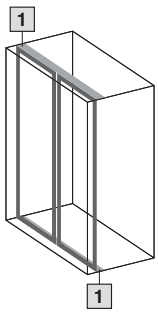
Colour:
– Trim panels: RAL 7035

Supply includes:
– Lock system, 130° hinge and parts for attaching to the installation kit

Note:
– The swing frame stay is required to lock the open swing frame 8619.270, see page 1078

Accessories:
– 482.6 mm (19") fastener, 1 U, 2090.000, see page 1097

Installation options

Full installation, front/set back	Partial installation, top, front/set back[1]	Partial installation, centre, front/set back[1]	Full installation, front	Full installation, front
				

Trim panel			Without	One side	Both sides	Page
For enclosure width mm			600	800	800	
U	For min. enclosure height mm	Packs of	**Model No.**			
22	1200	1 pc(s).	**8619.010**	**8619.020**	**8619.030**	
31	1600	1 pc(s).	**8619.011**	**8619.021**	**–**	
35	1800	1 pc(s).	**8619.012**	**8619.022**	**8619.032**	
40	2000	1 pc(s).	**8619.013**	**8619.023**	**8619.033**	
44	2200	1 pc(s).	**8619.014**	**8619.024**	**8619.034**	
Lock system	Cam lock		■	–	–	
	Locking rod		–	■	■	
Also required						
	For enclosure width mm	Packs of				
1 Installation kit	600	1 pc(s).	8619.040	–	–	1078
	800	1 pc(s).	8619.041	8619.041	8619.041	1078
	1200	1 pc(s).	8619.042	8619.042	8619.042	1078
	Installation in enclosure depth mm	Packs of				
2 Punched section with mounting flange 23 x 64 mm, 2 or 4 pc(s). required	400	4 pc(s).	8617.110	8617.110	8617.110	991
	500	4 pc(s).	8617.120	8617.120	8617.120	991
	600	4 pc(s).	8617.130	8617.130	8617.130	991
	800	4 pc(s).	8617.140	8617.140	8617.140	991
Accessories						
Comfort handle AX			–	see page	see page	939
Lock inserts, type A			–	see page	see page	939
180° hinges for VX[2]		1 pc(s).	8619.050	8619.050	8619.050	1078

[1] For the installation in VX SE, the adaptor rail VX is required, see page 995
[2] Only in conjunction with 800 mm wide installation kit

Swing frames

Installation kit

for swing frame, large
For mounting
– Directly on the enclosure section when installed across the entire enclosure height
– In conjunction with punched section with mounting flange 23 x 64 mm, for partial installation in the enclosure height

Material:
– Sheet steel, 3 mm

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts

For enclosure width mm	Load capacity N	Packs of	**Model No.**
600	3500	1 pc(s).	**8619.040**
800	3500	1 pc(s).	**8619.041**
1200	1500	1 pc(s).	**8619.042**

Swing frame stay

Secures the swing frame in the open position.

For mounting on swing frame, large
– 8619.270 at the top of the enclosure
– 1980.200 at the bottom of the enclosure (with safety stop at 160°)

For mounting on swing frame, small
– 8619.270, may be mounted at the top or bottom on the installation kit

	Packs of	**Model No.**
For 130° hinge	1 pc(s).	**8619.270**
For 180° hinge	1 pc(s).	**1980.200**

180° hinge

for swing frame, large, for VX
To extend the opening angle from 130° to 180° in the foremost installation position.
Provides optimum access to the components and 482.6 mm (19") components located behind the swing frame.

Load capacity:
– Up to 1500 N

Material:
– Die-cast

Note:
– Only suitable for installation in VX

Packs of	**Model No.**
1 pc(s).	**8619.050**

Slide rail

for swing frames
To support heavy slide-in 482.6 mm (19") electronic equipment in the swing frame.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

For slide-in equipment with max. installation depth	Packs of	**Model No.**
< 190 mm	10 pc(s).	**1962.200**
> 190 mm	10 pc(s).	**1963.200**

Accessories for Data Rack

Second pair of mounting angles

for Data Rack
To accommodate 482.6 mm (19") network components or for the attachment of component shelves and slide rails. 482.6 mm (19") punched profile at the front, hole centre distance 465 mm (470 mm at the rear), tailored to the attachment of patch panels and cable routing rails. The mounting level may be positioned on a 50 mm pitch pattern. Minimum distance between levels 150 mm, maximum distance between levels 350 mm.

Material:
– Sheet steel, 2 mm

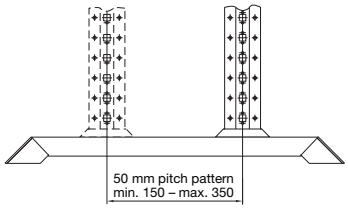
Surface finish:
– Spray-finished

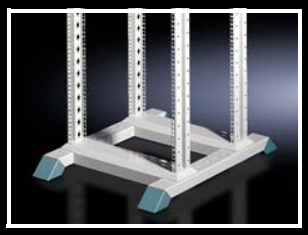
Colour:
– Profile frame: RAL 7035
– Trim panel: RAL 5018

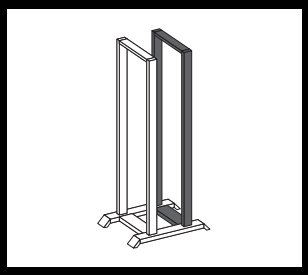
Supply includes:
– Torsionally stiff profile frame with 482.6 mm (19") punchings
– Mounting accessories

Units U	Packs of	Model No.
31	1 pc(s).	**7296.000**
36	1 pc(s).	**7297.000**
40	1 pc(s).	**7298.000**
45	1 pc(s).	**7299.000**

Accessories:
– Depth stays, see page 1079







Baying connector

for Data Rack
For assembling rows of distributor frames, or for cable routing between data racks.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Length mm	Packs of	Model No.
53	3 pc(s).	**7494.000**

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Depth stays

for Data Rack
For securing and stabilising two pairs of 482.6 mm (19") mounting angles in the Data Rack. The length of the depth stays is adjustable, and can accommodate the following spacings of mounting angles: 250, 300 and 350 mm.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Packs of	Model No.
2 pc(s).	**7401.000**

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Slide rail, 2 U, static installation, continuous

for two pairs of 482.6 mm (19") mounting angles
To support heavy equipment in the Data Rack. The mounting dimensions of the slide rails were selected to enable them to be combined with 500 mm deep, 482.6 mm (19") component shelves. The mounting distance of the 482.6 mm (19") mounting angles is 350 mm.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity:
– 500 N, static

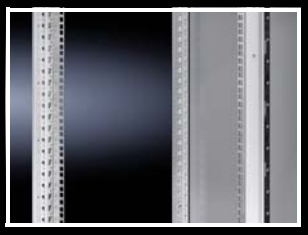
Supply includes:
– Assembly parts

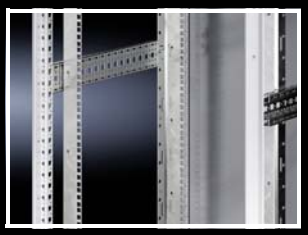
Packs of	Model No.
2 pc(s).	**7402.000**

Also required:
– Second pair of mounting angles, see page 1079

Accessories:
– 482.6 mm (19") fastener, 1 U, see page 1097
– Component shelf for frame attachment, see page 1006

Mounting angles





Adaptor section, 482.6 mm (19")

for VX, VX SE, enclosure width 600 mm
For mounting electronic components, subracks and other 482.6 mm (19") equipment. Adaptor sections are easily shortened for partial assemblies.

Material:
– Sheet steel, 2 mm

Supply includes:
– Assembly parts

Note:
– The 482.6 mm (19") measurement applies when mounting on the frame
– Depth-offset installation is possible using punched sections with mounting flanges, 18 x 64 mm

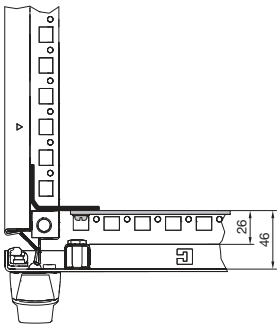
For enclosure height mm	U	Packs of	**Model No.**
1600	33	2 pc(s).	**8619.300[1)]**
1800	38	2 pc(s).	**8619.310**
2000	42	2 pc(s).	**8619.320[1)]**

[1)] For the rear of electronic enclosures, see page 130

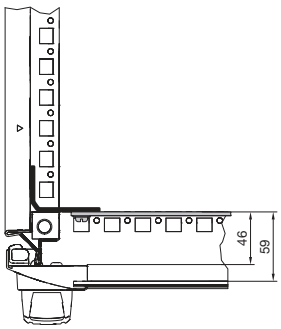
Accessories:
– 482.6 mm (19") fastener, 1 U, see page 1097
– Slide rail VX for adaptor section 482.6 mm (19") with attachment on one side, see page 1089
– Slide rail VX for adaptor section 482.6 mm (19") with attachment on both sides, see page 1089
– Punched section with mounting flange, 18 x 64 mm, see page 990
– Multi-tooth screws, see page 1004
– Metal multi-tooth screws, see page 1004
– Self-tapping screws, see page 1004

Installation examples for VX

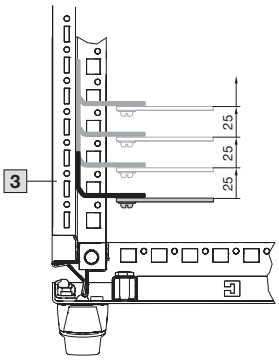
Foremost installation position
In conjunction with a sheet steel door



In conjunction with a glazed door

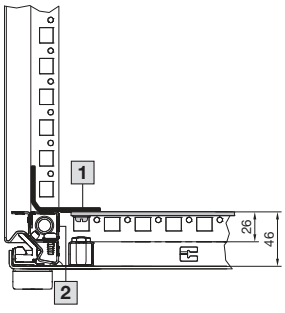


Offset installation position
May be depth-mounted on a 25 mm pitch pattern on punched sections with mounting flanges

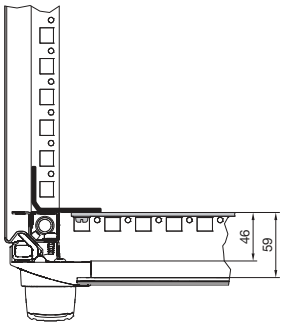


Installation examples for VX SE

Foremost installation position
On adaptor rail VX in conjunction with a sheet steel door



On adaptor rail VX in conjunction with a glazed door



1 Adaptor sections 482.6 mm (19")
2 Adaptor rail VX
3 Punched section with mounting flange 18 x 64 mm

Adaptor pieces, 482.6 mm (19")

for VX, VX SE

The 1 U sub-section of adaptor sections. For the installation of subracks and other 482.6 mm (19") equipment.

Material:
– Sheet steel, 2 mm

Supply includes:
– Assembly parts

Note:
– The 482.6 mm (19") measurement applies when mounting on the frame of 600 mm wide enclosures
– Depth-offset installation in 600 mm wide enclosures is possible using punched sections with mounting flanges, 18 x 64 mm

Units U	Packs of	Model No.
1	4 pc(s).	**8619.330**

Accessories:
– 482.6 mm (19") fastener, 1 U, see page 1097
– Punched section with mounting flange, 18 x 64 mm, see page 990
– Multi-tooth screws, see page 1004
– Metal multi-tooth screws, see page 1004
– Self-tapping screws, see page 1004

482.6 mm (19") mounting angles, standard

for VX IT

Suitable for assembling a 482.6 mm (19") mounting level or for 482.6 mm (19") partial installation.
The L-shaped design directly accommodates all commercially available installation kits for server systems, which are fastened directly to the 482.6 mm (19") system punchings.

Applications:
– For mounting a 482.6 mm (19") mounting level within the VX IT rack system

Benefits:
– Integral, bidirectional U labelling
– Integral system punchings on a U pitch pattern on the front and sides, allows U-specific mounting of cable routing components for structured cabling

Installation options:
– Alternative installation widths from 21" – 24", depending on the mounting variant and rack dimensions selected

Technical specifications:
– Side punchings, round and square, on a U pitch pattern
– Potential equalisation within the mounting level and with the locating frame is achieved via the assembly components
– 482.6 mm (19") mounting hole including U centre fixing attachment to standard EIA 310 E

Material:
– Sheet steel, 2 mm

Surface finish:
– Primed

Colour:
– RAL 9005

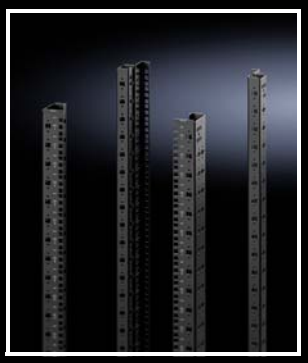
Supply includes:
– Assembly parts

For enclosure height U	Installation position	Packs of	Model No.
15	front	2 pc(s).	**5302.100**
15	rear	2 pc(s).	**5302.101**
24	front	2 pc(s).	**5302.102**
24	rear	2 pc(s).	**5302.103**
38	front	2 pc(s).	**5302.104**
38	rear	2 pc(s).	**5302.105**
42	front	2 pc(s).	**5302.106**
42	rear	2 pc(s).	**5302.107**
47	front	2 pc(s).	**5302.108**
47	rear	2 pc(s).	**5302.109**

Assembly instruction:
– A combination with cross-member, depth stays or mounting bracket is required for attachment
– Use of the different mounting options depends on the relevant enclosure dimensions

Accessories:
– Cross member, see page 1083
– Mounting bracket, see page 1082
– Depth stays, see page 1083

Mounting angles



482.6 mm (19") mounting angles, dynamic

for VX IT

Suitable for assembling a 482.6 mm (19") mounting level or for 482.6 mm (19") partial installation.
The L-shaped design can directly accommodate all commercially available mounting kits for server systems, which are fastened directly to the 482.6 mm (19") system punchings.

Applications:
– For mounting a 482.6 mm (19") mounting level within the VX IT rack system

Benefits:
– Integral, bidirectional U labelling
– Integral system punchings on a U pitch pattern on the front and sides, allows U-specific mounting of cable routing components for structured cabling

Installation options:
– Alternative installation widths from 21" – 24", depending on the mounting variant and rack dimensions selected

Technical specifications:
– Side punchings, round and square, on a U pitch pattern
– Potential equalisation within the mounting level and with the locating frame is achieved via the assembly components
– 482.6 mm (19") mounting hole including U centre fixing attachment to standard EIA 310 E

Material:
– Sheet steel, 2.5 mm

Surface finish:
– Primed

Colour:
– RAL 9005

Supply includes:
– Assembly parts

For enclosure height U	Installation position	Packs of	Model No.
38	front	2 pc(s).	**5302.152**
38	rear	2 pc(s).	**5302.153**
42	front	2 pc(s).	**5302.154**
42	rear	2 pc(s).	**5302.155**
47	front	2 pc(s).	**5302.156**
47	rear	2 pc(s).	**5302.157**

Assembly instruction:

– A combination with cross-member, depth stays or mounting bracket is required for attachment
– Use of the different mounting options depends on the relevant enclosure dimensions

Accessories:

– Mounting bracket, see page 1082
– Cross member, see page 1083
– Depth stays, see page 1083

Mounting bracket

for VX IT 482.6 mm (19") mounting angles

For mounting 482.6 mm (19") mounting angles in VX IT network/server racks. For racks with a width of 600 mm, they are attached directly to the frame and for racks with a width of 800 mm to the cross-member.

Benefits:
– Direct potential equalisation of the mounting angles via the attachment

Material:
– Sheet steel

Surface finish:
– Clear-chromated

Colour:
– RAL 9005

Supply includes:
– Assembly parts

Design	For enclosure width mm	Packs of	Model No.
for VX IT 482.6 mm (19") mounting angles, standard	600	4 pc(s).	**5302.110**
for VX IT 482.6 mm (19") mounting angles, dynamic	600	4 pc(s).	**5302.160**
for cross member	800	4 pc(s).	**5302.169**

Accessories:

– Cross member, see page 1083

Cross member

for VX IT mounting angles, 482.6 mm (19"), standard

For width-variable mounting of standard 482.6 mm (19") mounting angles in 800 mm wide VX IT network/server enclosures.

Benefits:
- Symmetrical or asymmetrical installation supported
- More space for cable routing or integration of a Liquid Cooling Unit (LCU) with one-sided, asymmetrical (laterally offset) installation
- Ideal for integrating 482.6 mm (19") mounting angles for alternative installation with 21", 23", or 24" components
- To boost the energy efficiency of an integral rack climate control system, the surrounding area around the 482.6 mm (19") mounting level can be covered with air baffle plates, enabling the more selective use of the cooling airflow and minimising exhaust airflows

Material:
- Sheet steel

Surface finish:
- Spray-finished

Colour:
- RAL 9005

Load capacity:
- 4000 N

Supply includes:
- Assembly parts

For enclosure width mm	Packs of	Model No.
800	2 pc(s).	**5302.167**

Note:
- The maximum load capacity of one mounting level on a cross member is 4000 N per mounting level.

Also required:
- Mounting bracket, see page 1082

Assembly instruction:
- It is attached directly onto the enclosure frame
- A cross member mounting bracket is needed to screw-fasten the mounting angles to the cross member

Accessories:
- Air baffle plate, see page 1094

Depth stays

for 482.6 mm (19") mounting angles

To accommodate 19" mounting angles.

Benefits:
- Particularly high load capacity up to 15,000 N
- Enhanced stability thanks to improved load distribution
- Symmetrical or asymmetrical installation supported
- More space for cable routing or integration of a Liquid Cooling Unit (LCU) with one-sided, asymmetrical (laterally offset) installation
- Ideal for integrating 482.6 mm (19") mounting angles for alternative installation with 21", 23", or 24" components

Material:
- Sheet steel

Surface finish:
- Spray-finished

Colour:
- RAL 9005

Supply includes:
- 2 depth stays each for top and bottom for enclosure width > 600 mm
- Assembly parts

Design	For enclosure depth mm	For enclosure width mm	Packs of	Model No.
for VX IT 482.6 mm (19") mounting angles, standard	1000	> 600	1 pc(s).	**5302.111**
for VX IT 482.6 mm (19") mounting angles, standard	1200	> 600	1 pc(s).	**5302.112**
for VX IT 482.6 mm (19") mounting angles, dynamic	1000	> 600	1 pc(s).	**5302.161**
for VX IT 482.6 mm (19") mounting angles, dynamic	1200	> 600	1 pc(s).	**5302.164**
for VX IT 482.6 mm (19") mounting angles, standard for VX IT 482.6 mm (19") mounting angles, dynamic	1200	600	2 pc(s).	**5302.166**

Also required:
- Support rail, see page 1084
- Mounting bracket, see page 1082

Assembly instruction:
- For the attachment of mounting angles in enclosures that are greater than 1000 mm deep and greater than 600 mm wide, additional mounting brackets are required
- For the attachment of mounting angles in enclosures that are greater than 1000 mm deep and greater than 600 mm wide, an additional support rail for VX IT is required

Mounting angles

Support rail

for VX IT

For the attachment of mounting angles in enclosures > 1000 mm deep and 600 mm or 800 mm wide when using depth stays. The support rail improves load distribution in network/server racks.

Technical specifications:
– Side round and square punchings

Material:
– Sheet steel

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**5302.170**

Assembly instruction:

– The support rail is screw-fastened onto the centre of the frame structure at right-angles below the depth stays

Mounting angles additional fastening attachment

for VX IT 482.6 mm (19") mounting angles, standard

Prevents the mounting angles from twisting in case of unevenly distributed loads. Secured directly between the mounting angle and a mounting section on the outer mounting level of the VX frame structure.

Applications:
– For fixing the 482.6 mm (19") mounting angle, standard, onto the outer mounting level

Benefits:
– Can also be used as individual fastening with 482.6 mm (19") partial installation

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– Assembly parts

For enclosure width mm	Packs of	Model No.
600	2 pc(s).	**5302.123**
800	2 pc(s).	**5302.124**

Also required:

– Punched section with mounting flange, 18 x 64 mm, see page 990

Mounting kit, 2 U

for 482.6 mm (19") equipment

Facilitates fast, simple integration of additional 2 U mounting space within an enclosure by attaching to the enclosure frame or to the existing mounting angles at the sides. The flexible slot fastening of the brackets means that the distance between the two installation brackets may be freely selected, so that other 482.6 mm (19˝) attachment dimensions may be implemented. The second row of holes is used for the optional configuration of additional mounting surfaces.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Units U	Packs of	Model No.
2	2 pc(s).	**7246.420**

Mounting angles, 482.6 mm (19")

for FlatBox
L-shaped bracket as 2nd attachment level

Material:
– Sheet steel, spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts for fast, tool-free assembly.

Note:
– The 2nd attachment level should always be ordered in the same height as the basic enclosure
– Partial configuration is not possible

Units U	Packs of	Model No.
6	2 pc(s).	**7507.706**
9	2 pc(s).	**7507.709**
12	2 pc(s).	**7507.712**
15	2 pc(s).	**7507.715**
18	2 pc(s).	**7507.718**
21	2 pc(s).	**7507.721**

Adhesive measurement strip, 482.6 mm (19")

With numerical labelling on a 482.6 mm (19") pitch pattern for clear identification of the various height units.

Applications:
– For retrofitting to existing 482.6 mm (19") sections
– For sticking onto the side adjacent to the system punchings

Benefits:
– Double-sided labelling allows the counting direction to be freely selected
– Clear documentation of the various installed components

Material:
– Sheet steel, spray-finished

Design	Width mm	Packs of	Model No.
Labelling range 1 – 56 U	6	1 pc(s).	**7950.100**

Cover, magnetic

for VX IT
For optionally covering the front system punchings with complete air blocking of the front, or in the absence of installed cable fingers. With additional labelling strips for bidirectional U labelling.

Applications:
– For retrofitting to existing 482.6 mm (19") sections

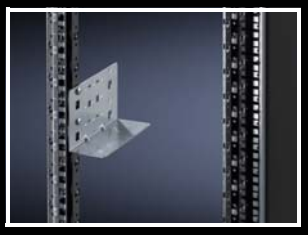
Benefits:
– Double-sided labelling allows the counting direction to be freely selected
– Clear documentation of the various installed components

Material:
– Cover: PVC
– Adhesive measurement strips: Plastic

Supply includes:
– Cover (front)
– 2 adhesive measurement strips, self-adhesive, bi-directional

Design	Length m	Width mm	Packs of	Model No.
Labelling range 1 – 56 U	5	15	1 pc(s).	**5501.895**

Slide rails



Slide rail, 2 U, static installation

for VX IT

System punchings for mounting accessories and cooling active components.

Applications:
– For mounting on a 482.6 mm (19") mounting level

Installation options:
– for 482.6 mm (19") mounting angles, standard
– for 482.6 mm (19") mounting angles, dynamic

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity:
– 300 N, static

Supply includes:
– Assembly parts

Units U	Length mm	Packs of	Model No.
2	150	2 pc(s).	**5501.400**

Slide rail, 1 U, static installation

for VX IT

Side system punchings for mounting accessories and cooling components that expel to the side.

Applications:
– For mounting on the front mounting level
– To support heavy installed equipment

Benefits:
– Simply locate into the system punchings of the 482.6 mm (19") mounting brackets after adjusting the required 482.6 mm (19") distance between levels

Installation options:
– for 482.6 mm (19") mounting angles, standard

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity:
– 800 N, static

Supply includes:
– Assembly parts

Note:
– Effective contact surface 35 mm per side

Units U	Length mm	Distance between 482.6 mm (19") levels mm	Packs of	Model No.
1	275	345	2 pc(s).	**5501.410**
1	375	445	2 pc(s).	**5501.420**
1	475	545	2 pc(s).	**5501.430**
1	575	645	2 pc(s).	**5501.440**
1	675	745	2 pc(s).	**5501.450**

Assembly instruction:

– The 482.6 mm (19") spacing between levels in the VX IT must be adjusted accordingly prior to installation

Slide rail, 2 U, static installation, heavy duty

for VX IT

Side system punchings for mounting accessories and cooling components that expel to the side.

Applications:
- For mounting on the front mounting level
- To support heavy installed equipment

Benefits:
- Simply locate into the system punchings of the 482.6 mm (19") mounting brackets after adjusting the required 482.6 mm (19") distance between levels

Installation options:
- 482.6 mm (19") mounting angles, standard
- 482.6 mm (19") mounting angles, dynamic

Material:
- Sheet steel

Surface finish:
- Zinc-plated

Load capacity:
- 2000 N, static

Supply includes:
- Assembly parts

Note:
- Effective contact surface 35 mm per side

482.6 mm (19") distance between levels, standard mm	482.6 mm (19") distance between levels, dynamic mm	Packs of	Model No.
320	325	2 pc(s).	**5302.030**
420	425	2 pc(s).	**5302.031**
520	525	2 pc(s).	**5302.032**
620	625	2 pc(s).	**5302.033**
720	725	2 pc(s).	**5302.034**

Slide rail, heavy-duty

for TE

For L-shaped mounting angles with a preconfigured clearance between levels of 740 mm. Easily and quickly installed due to locating brackets for the rear level.

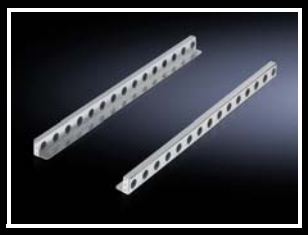
Material:
- Sheet steel

Surface finish:
- Zinc-plated

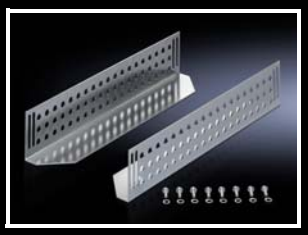
Load capacity (static):
- 1000 N

Supply includes:
- Assembly parts

Distance between 482.6 mm (19") levels mm	Contact surface, width mm	Contact surface, depth mm	Packs of	Model No.
745	50	734	2 pc(s).	**7063.740**



Slide rails



Slide rail

for TE

For mounting between the front and rear 482.6 mm (19") mounting levels. The slide rails can be used to support heavy 482.6 mm (19") components.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity (static):
– 800 N

Supply includes:
– Assembly parts

Distance between 482.6 mm (19") levels mm	Contact surface, width mm	Contact surface, depth mm	Packs of	Model No.
395	85	324	2 pc(s).	**7963.310**
495	85	424	2 pc(s).	**7963.410**
595	85	524	2 pc(s).	**7963.510**
695	85	624	2 pc(s).	**7963.610**
795	85	724	2 pc(s).	**7963.710**

Slide rail, 1 U, depth-variable

for VX IT, TE

Applications:
– For mounting on the front mounting level
– To support heavy installed equipment
– To adapt to individual distances between 482.6 mm (19") levels

Benefits:
– Tool-free, time-saving one-man assembly from the enclosure front
– All three mounting holes in the EIA system punchings are available for screw-fastening the equipment.
– Alternatively, direct screw fastening in the TE 8000 to the 482.6 mm (19") system punchings is also possible

Installation options:
– 482.6 mm (19") L mounting angles, front and rear
– 482.6 mm (19") mounting frames front and rear
– for VX IT 482.6 mm (19") mounting angles, standard
– for VX IT 482.6 mm (19") mounting angles, dynamic

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Note:
– Effective contact surface 25 mm per side

Distance between 482.6 mm (19") levels mm	Load capacity (static)	Packs of	Model No.
600 - 900	800 N	2 pc(s).	**5302.035**
400 - 600	800 N	2 pc(s).	**5501.460**

Slide rail, 1 U, depth-variable

for VX IT, TE

For direct attachment to the 482.6 mm (19") system punchings on the mounting angles. The slide rails are pulled out to the required length and secured between the front and rear mounting level on the 482.6 mm (19") pitch pattern.

Applications:
– For mounting on the front mounting level

Benefits:
– No loss of U
– Thanks to the thin support surface of only around 0.8 mm thickness, exceeding the U pitch pattern is generally avoided, provided the components do not exceed a maximum height of 43.5 mm. In this way, several units may be easily arranged on top of one another without offset.

Installation options:
– For attachment between the front and rear 482.6 mm (19") mounting level

Distance between 482.6 mm (19") levels mm	Packs of	Model No.
390 - 550	2 pc(s).	**7063.750**
550 - 750	2 pc(s).	**7063.752**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Load capacity:
– 20 kg static load

Supply includes:
– Assembly parts

Note:
– Effective contact surface 30 mm per side

Slide rail VX

for adaptor section 482.6 mm (19") with attachment on both sides

Mounting between the 482.6 mm (19") front and rear adaptor sections or 482.6 mm (19") adaptor pieces.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

For enclosure depth mm	Packs of	Model No.
500	10 pc(s).	**8613.151**
600	10 pc(s).	**8613.161**
800	10 pc(s).	**8613.181**

Slide rail VX

for adaptor section 482.6 mm (19") with attachment on one side

Mounted on the adaptor section , 482.6 mm (19").

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Length mm	Packs of	Model No.
270	10 pc(s).	**4531.001**

482.6 mm (19") installation

Server telescopic slides

Facilitate optimum accessibility to the servers, even when built-in. For servers with a maximum width of 426 mm.

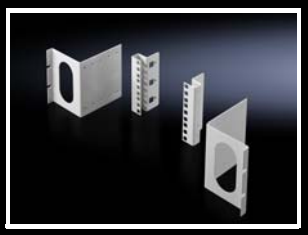
Material:
– Sheet steel

Load capacity:
– 30 kg

Supply includes:
– Telescopic slide with mounting kit
– Assembly parts

Note:
– Only in conjunction with L-shaped mounting angles

Design	Extension length mm	For enclosure depth mm	Packs of	Model No.
For 468.6 - 687.4 mm distance between levels	511.2	600	2 pc(s).	**3659.180**
For 559.0 - 789.0 mm distance between levels	596.4	800	2 pc(s).	**3659.190**



Adaptor kit, 3 U

for 800 mm wide VX enclosures
For fastening individual 482.6 mm (19") components, or as an additional mounting facility at the rear of the enclosure. The mounting level in the adaptor angle can be adjusted in 25 mm increments by up to 100 mm in the depth, leaving sufficient space for baying where patch panels or splicing boxes are used. Attachment is on the inner mounting level of the frame section or a suitable chassis in the enclosure depth.

Material:
– Sheet steel

Colour:
– RAL 7035

Units U	Design	Packs of	Model No.
3	Installation position, centre	2 pc(s).	**7246.100**

Adaptor, 3 U

Depth offset 100 mm
This adaptor is used to recess 482.6 mm (19") mounting of equipment inside enclosures with 482.6 mm (19") installation in the foremost position, such as server or electronic enclosures. In this way, sufficient space can be gained in front of the mounting equipment to integrate patch panels or switches, whilst at the same time exploiting the maximum enclosure depth.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Units U	Packs of	Model No.
3	2 pc(s).	**7246.400**

Adaptor, metric to 21"/19"

With this adaptor, 482.6 mm (19") assemblies may be fastened to metric (535 mm) mounting angles, or combined systems may be configured.

Material:
– Extruded aluminium section

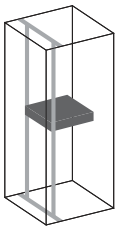
Units U	Height SU	Packs of	**Model No.**
1	2	2 pc(s).	**7246.010**
3	6	2 pc(s).	**7246.030**
6	11	2 pc(s).	**7246.060**

Drawer

for one 482.6 mm (19") mounting level
For front attachment to mounting angles, 482.6 mm (19"). With cover and telescopic slides to accommodate assignment lists, operating manuals and small parts. The small version of the 2 U variant is also suitable for mounting inside a swing frame.

Material:
– Sheet steel

Supply includes:
– Fully assembled
– Security lock 12321
– Assembly parts



Units U	Width	Clearance openings, width mm	Clearance openings, depth mm	Installation depth mm	Colour	Packs of	**Model No.**
2	19"	411	419	427	RAL 7035	1 pc(s).	**7282.035**
2	19"	411	244	250	RAL 7035	1 pc(s).	**7282.135**
3	19"	411	419	427	RAL 7035	1 pc(s).	**7283.035**
2	19"	411	419	427	RAL 9005	1 pc(s).	**5502.305**
3	19"	411	419	427	RAL 9005	1 pc(s).	**5502.325**

Small equipment box, 4 U, shielded

for one 482.6 mm (19") mounting level
For accommodation of small equipment and other accessories within a partitioned 482.6 mm (19") installation level. The small equipment box contains an adjustable mounting base which can be used to further sub-divide the box.

Material:
– Sheet steel
– Brush strip: Plastic, UL 94-HB

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Load capacity:
– 200 N surface load, static

Supply includes:
– Small equipment box with brush strip
– 1 shelf

Contact surface, width mm	Contact surface, depth mm	Height mm	Width mm	Depth mm	Packs of	**Model No.**
405	300	170	427	400	1 pc(s).	**5501.900**

482.6 mm (19") installation

482.6 mm (19") installation aid

for Network Cable Organizer
For easier mounting of 482.6 mm (19") installed components within the mounting level.

Applications:
– To support heavy installed equipment

Installation options:
– For mounting on the front mounting level

Material:
– Sheet steel

Colour:
– RAL 9005

Load capacity:
– max. 150 N

Supply includes:
– Assembly parts

Note:
– Effective contact surface 35 mm per side

Packs of	Model No.
1 pc(s).	**5502.110**

Blanking plate, 482.6 mm (19")

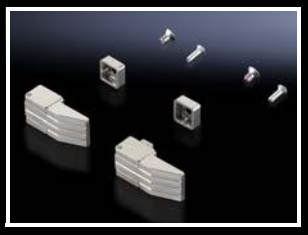
For installation in electronic enclosures or housings.

Benefits:
– To neatly finish off free locations within the mounting level.

Material:
– Aluminium, 3 mm

Surface finish:
– Natural anodised

Units U	Packs of	Model No.
1	3 pc(s).	**1931.200**
2	3 pc(s).	**1932.200**
3	3 pc(s).	**1933.200**
4	3 pc(s).	**1934.200**
6	3 pc(s).	**1936.200**
7	3 pc(s).	**1935.200**
9	3 pc(s).	**1939.200**
12	3 pc(s).	**1937.200**



Hinge

for blanking plates

Material:
– Die-cast zinc

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
2 pc(s).	**1950.000**

482.6 mm (19") installation

Blanking panel, 482.6 mm (19")

As an extension cover or for population as required.

Width:
– 482.6 mm

Material:
– Sheet steel

Colour RAL 7035

Units U	Installation height mm	Width	Packs of	Model No.
1	44	19"	2 pc(s).	**7151.035**
1.5	66	19"	2 pc(s).	**7157.035**
2	88	19"	2 pc(s).	**7152.035**
3	132.5	19"	2 pc(s).	**7153.035**
6	266	19"	2 pc(s).	**7156.035**

Colour RAL 9005

Units U	Installation height mm	Width	Packs of	Model No.
1	44	19"	2 pc(s).	**7151.005**
2	88	19"	2 pc(s).	**7152.005**
3	132.5	19"	2 pc(s).	**7153.005**
6	266	19"	2 pc(s).	**7156.005**

Blanking panel, 482.6 mm (19")

Tool-free attachment
The blanking panel is used to seal unused areas within the 482.6 mm (19") mounting level. Quick tool-free attachment means that it is easily integrated anywhere, and can also be removed again if necessary. The consistent use of blanking panels ensures targeted air routing in partially populated racks.

Material:
– Plastic
– Fire protection: Self-extinguishing , to UL 94 HB, halogen-free

Colour:
– RAL 9005

Supply includes:
– Blanking panel, 1 U, with integral quick-fastening

Installation height U	Width	Packs of	Model No.
1	19"	10 pc(s).	**5302.200**

Vent trim panel, 482.6 mm (19")

For targeted air infeed from the front zone into the 482.6 mm (19") level.

Applications:
– Targeted routing of cold air from the raised floor via the front to the rear for cooling separate components

Benefits:
– Vented surface area approx. 85 % perforated

Material:
– Sheet steel

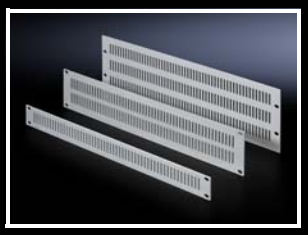
Surface finish:
– Spray-finished

Colour:
– RAL 9005

Units U	Packs of	Model No.
1	1 pc(s).	**5302.201**

Also required:
– 482.6 mm (19") fastener, 1 U, see page 1097
– Multi-tooth screws, see page 1098

482.6 mm (19") installation



Ventilated front panels

Width 482.6 mm (19")
For venting enclosures and housings.

Material:
– Aluminium

Surface finish:
– Natural anodised

Units U	Packs of	Model No.
1	3 pc(s).	**2231.000**
2	3 pc(s).	**2232.000**
3	3 pc(s).	**2233.000**

Air baffle plate

for VX IT 482.6 mm (19") mounting angles, standard

Applications:
– To separate the hot/cold zones within an enclosure with aisle containment or when using an LCP system.

Benefits:
– For selectively boosting the energy efficiency of a climate control system
– Vertical brush strip for collision-free shielding with installed rail systems on the outer mounting level

Material:
– Sheet steel
– Blanking panel: Plastic, UL 94-HB, halogen-free
– Brush strip: Plastic, UL 94-HB

Surface finish:
– Spray-finished

Colour:
– RAL 9005

Supply includes:
– 2 vertical trim panels
– 2 horizontal trim panels
– 4 brush strips
– 4 cellular PU foam pieces
– Assembly parts

Assembly instruction:

– The vertical trim panels with brush strip may be fitted on both the front and rear 482.6 mm (19") mounting angles for partitioning.
– The horizontal trim panels with brush strips can only be mounted on the front 482.6 mm (19") mounting angles.
– 482.6 mm (19") mounting cut-outs integrated within the partitioning areas may optionally be sealed with the supplied blanking panels, or used to install additional components or for cable routing. Please see the product-specific scope of supply.

Accessories:

– 482.6 mm (19") fastener, 1 U, see page 1097

For enclosure width mm	For enclosure height mm	Product-specific scope of supply	Packs of	Model No.
600	1200	–	1 pc(s).	**5302.010**
800	1200	4 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.011**
600	1800	–	1 pc(s).	**5302.012**
800	1800	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.013**
600	2000	–	1 pc(s).	**5302.016**
800	2000	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.014**
600	2200	–	1 pc(s).	**5302.017**
800	2200	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.015**

Air baffle plate

for VX IT 482.6 mm (19") mounting angles, dynamic

For selectively boosting the energy efficiency of a climate control system.

Applications:
- To separate the hot/cold zones within an enclosure with aisle containment or when using an LCP system.

Benefits:
- Vertical brush strip for collision-free shielding with installed rail systems on the outer mounting level

Material:
- Sheet steel
- Blanking panel: Plastic, UL 94-HB, halogen-free
- Brush strip: Plastic, UL 94-HB

Surface finish:
- Spray-finished

Colour:
- RAL 9005

Supply includes:
- 2 vertical trim panels
- 2 horizontal trim panels
- 4 brush strips
- 4 cellular PU foam pieces
- Assembly parts

Assembly instruction:
- The vertical trim panels with brush strip may be fitted on both the front and rear 482.6 mm (19") mounting angles for partitioning.
- The horizontal trim panels with brush strips can only be mounted on the front 482.6 mm (19") mounting angles.
- 482.6 mm (19") mounting cut-outs integrated within the partitioning areas may optionally be sealed with the supplied blanking panels, or used to install additional components or for cable routing. Please see the product-specific scope of supply.

Accessories:
- 482.6 mm (19") fastener, 1 U, see page 1097

For enclosure width mm	For enclosure height mm	Product-specific scope of supply	Packs of	Model No.
600	1200	–	1 pc(s).	**5302.000**
800	1200	4 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.001**
600	1800	–	1 pc(s).	**5302.002**
800	1800	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.003**
600	2000	–	1 pc(s).	**5302.004**
800	2000	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.005**
600	2200	–	1 pc(s).	**5302.006**
800	2200	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.007**
600	2450	–	1 pc(s).	**5302.008**
800	2450	6 blanking panels, 482.6 mm (19"), 1 U	1 pc(s).	**5302.009**

482.6 mm (19") air duct

for horizontal air routing

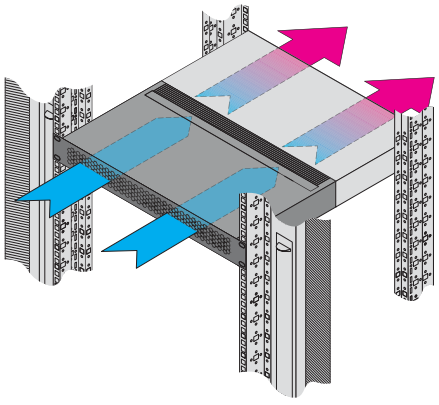
Air duct, passive, for cold air supply to 482.6 mm (19") IT equipment installed at the rear of server racks; air is drawn in from the front.

Benefits:
- For superior air infeed to the rear 482.6 mm (19") components
- Integral brush strip for cable entry of 482.6 mm (19") IT equipment
- Supports front-to-back air routing
- Depth-variable

Material:
- Sheet steel, spray-finished
- Brush strip: Plastic, UL 94-HB

Colour:
- RAL 9005

Width mm	Height U	Depth mm	Packs of	Model No.
482.6	1	223 - 356	1 pc(s).	**3301.391**



482.6 mm (19") installation

Air duct

for side air routing
Air duct, passive, for cold air intake to 482.6 mm (19") IT equipment with side air inlet. Suitable for use in conjunction with all-round partitioning around the mounting level via air baffle plates and targeted management of the airflow through the air duct.

Benefits:
– For superior air infeed to the rear 482.6 mm (19") equipment with side air routing
– Integral membrane cover allows cable entry to the rear
– Depth-variable

Installation options:
– for 482.6 mm (19") mounting angles, standard

Material:
– Sheet steel

Surface finish:
– Spray-finished

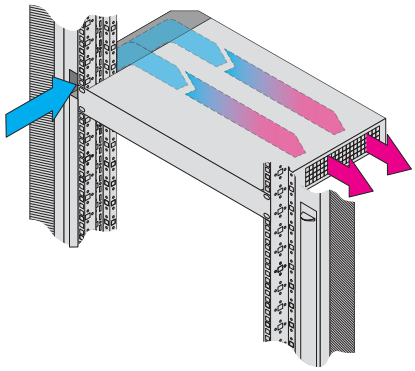
Colour:
– RAL 9005

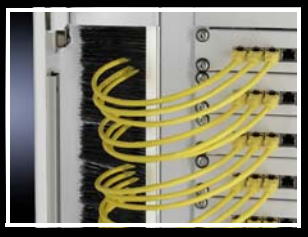
Supply includes:
– Air duct
– Adaptor for attaching to 482.6 mm (19") mounting angles
– Magnetic strip to cover the remaining vertical openings in the air baffle plate

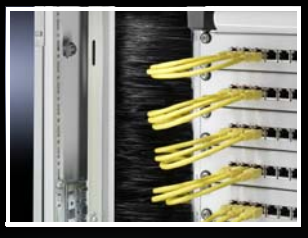
Height U	Depth mm	For enclosure width mm	Packs of	Model No.
2	275 - 418	800	1 pc(s).	**3301.392**

Also required:
– Air baffle plate, see page 1094

Assembly instruction:
– Only suitable for fitting on the front 482.6 mm (19") installation level
– Can only be mounted in the area of the vertical 19" openings of the air baffle plate







Brush strip, vertical

for VX IT
Within the network distributor, this serves as a flexible infill panel which stylishly conceals the cable management area to the side of the 482.6 mm (19") mounting level. The brush strip facilitates convenient cable routing from the side and rear distributor area to the front connection level. The clearance required in front of the mounting level is at least 75 mm. The brush strip is mounted at the side on the vertical frame section, on horizontal or vertical punched sections.

Material:
– Aluminium section, natural anodised
– Brush strip: Plastic, UL 94-HB

Length mm	Bristle length mm	For enclosure height mm	Packs of	Model No.
950	95	2000	4 pc(s).	**7827.544**

Assembly instruction:
– The brush strip will need to be shortened when mounting on 482.6 mm (19") mounting angles.

Mounting panel, 482.6 mm (19")

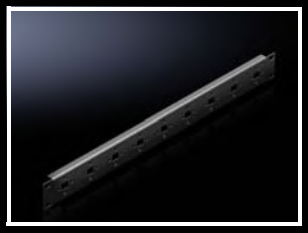
For fast integration of smaller mounting units within the 482.6 mm (19") level, such as potential equalisation rails, distributor boxes, small electrical components etc. Simple screw-fastening of the components to the integral 25 mm system punchings.

Material:
– Sheet steel

Also required:
– 482.6 mm (19") fastener, 1 U, see page 1097
– Multi-tooth screws, see page 1098

Accessories:
– 482.6 mm (19") fastener, 1 U, see page 1097

Units U	Mounting surface width mm	Colour	Surface finish	Packs of	Model No.
2	450	–	Zinc-plated	1 pc(s).	**7151.300**
1	450	RAL 9005	Spray-finished	1 pc(s).	**5302.204**



Support

for small appliances

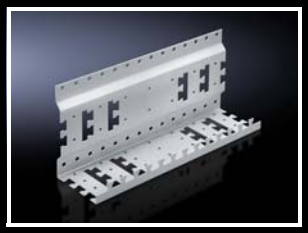
For secure attachment of non-482.6 mm (19")-conforming small appliances such as modems, power packs, routers etc. Angular support for mounting in the free space at the side between the 482.6 mm (19") level and the side panel on mounting angles or punched sections. Attachment of the components and connection cables can be achieved quickly and easily using nylon tape or cable ties. Also suitable for cable routing in the enclosure depth.

Height mm	Width mm	Depth mm	Packs of	Model No.
150	350	97	1 pc(s).	**7246.500**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts



482.6 mm (19") fastener, 1 U

with contact

For simple screw connection of installation components within the 482.6 mm (19") mounting level. Simply slide onto the mounting angle from the inside and lock home.

Benefits:
– Fast positioning and installation instead of using individual cage nuts
– Integral contacting for potential equalisation
– Preconfigured 1 U support with 3 cage nuts, including centre attachment to standard EIA 310
– Supports multiple dismantling and reuse

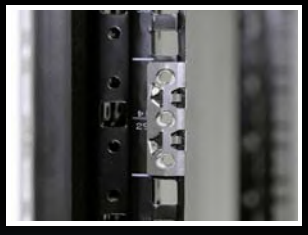
Material:
– Sheet steel

Surface finish:
– Zinc-plated

Thread	Packs of	Model No.
M5	24 pc(s).	**2090.000**

Note:
– All enclosures in the Rittal range have already been tested within their tolerances for the use of 482.6 mm (19") fasteners. Suitability for use in enclosures from other manufacturers cannot be guaranteed.

Also required:
– Multi-tooth screws, see page 1098



482.6 mm (19") installation

Captive nuts

For the attachment of rack-mounted electronic equipment, 482.6 mm (19") installed equipment and blanking plates to mounting angles, 482.6 mm (19"). For use with metal thickness from 0.8 – 2.5 mm. Optionally with or without contact of the installed equipment to the 482.6 mm (19") section/enclosure.

Thread	Design	For metal thickness mm	Packs of	Model No.
M5	without contact	0.8 - 2.5	50 pc(s).	**2092.500**
M5	with contact	0.8 - 2.5	50 pc(s).	**2094.500**
M6	without contact	0.8 - 2.5	50 pc(s).	**2092.200**
M6	with contact	0.8 - 2.5	50 pc(s).	**2094.200**

Possible alternative:

– 482.6 mm (19") fastener, 1 U, see page 1097

Assembly screws

For electronic equipment, 482.6 mm (19") installed components and blanking plates.

Supply includes:
– Plastic washers

Thread	Thread length mm	Design	Packs of	Model No.
M5	16	Phillips-head screw	50 pc(s).	**7094.120**
M5	16	Multi-tooth 25	50 pc(s).	**7094.130**
M6	16	Phillips-head screw	50 pc(s).	**7094.100**
M6	16	Slot-head screw	50 pc(s).	**7094.110**
M6	16	Multi-tooth 30	50 pc(s).	**7094.140**

Assembly instruction:

– Max. tightening torque 3 Nm

Front-mounting cage nut, 482.6 mm (19")

The cage nut consists of an expanding nut which is simply inserted into the square attachment hole at the front and then secured with the assembly screw. When tightening the screw, the cage expands and thus secures the required components. Clamping range from 1.2 – 4.5 mm. Multi-tooth screw head, bit size T 30.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Pan-head screws
– Expanding nuts
– Plastic washers

Thread	Thread length mm	Design	Packs of	Model No.
M6	16	Size of mounting hole 9.5 x 9.5 mm	50 pc(s).	**2094.400**

Spring nuts with screws

for T-slot mounting angle
The spring nuts ensure flexible, secure mounting of accessory components on the T-slot mounting angles.

Supply includes:
– Spring nuts
– Screws, self-locking

Thread	Thread length mm	Design	Packs of	Model No.
M6	10	Phillips-head screw	50 pc(s).	**7000.990**

Fibre-optic splicing box, depth-variable

The 482.6 mm (19") splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 482.6 mm (19") accommodation and used as a fibre-optic termination or distributor. The variable cassette fixture permits twist-proof installation of all standard splicing cassettes. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fibre-optic cables can be secured with cable ties or cable clamps. The splicing box is infinitely depth-adjustable up to 100 mm within the 482.6 mm (19") flanges. In addition, the splicing box may be fully withdrawn from the 482.6 mm (19") flanges. Two strain relief clips and cable routing clips for the fibre stock provide a solution to suit any fibre-optic wiring system.

Material:
– Sheet steel

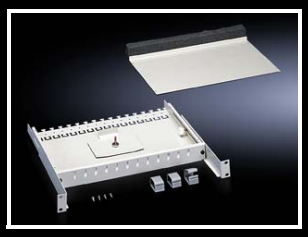
Colour:
– RAL 7035

Supply includes:
– Splicing box
– Cable routing clips
– Cassette cover
– Mounting accessories for patch panel

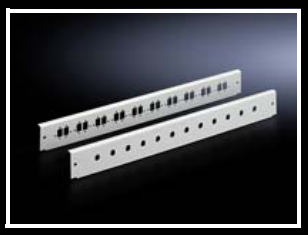
Note:
– Supplied without patch panels and splicing cassettes

Units U	Maximum no. of splicing cassettes	Installation depth mm	Packs of	Model No.
1	2	302	1 pc(s).	**7241.005**

Also required:
– Patch panels, see page 1100



482.6 mm (19") installation



Patch panels

for fibre-optic splicing box, depth-variable, and fibre-optic breakout box, 1 U
With cut-outs for population with fibre-optic couplings.

Applications:
– for fibre-optic splicing box, depth-variable, and fibre-optic breakout box, 1 U

Material:
– Sheet steel

Colour:
– RAL 7035

Units U	For couplings	Number of locations	Packs of	**Model No.**
1	E-2000 E-2000 duplex SC LC duplex	24	1 pc(s).	**7241.024**
1	SC duplex LC quad	12	1 pc(s).	**7241.045**

Fibre-optic splicing box with telescopic pull-out

lockable
The 482.6 mm (19") splicing box is designed to accommodate splicing cassettes and can be installed in any network distributor with 482.6 mm (19") accommodation and used as a fibre-optic termination or distributor. The rear section of the splicing box is completely open for cable entry; a rubber cable clamp strip provides protection against dust. The fibre-optic cables can be secured with cable ties or cable clamps; two strain relief clips and cable routing clips for the fibre stock provide a solution to suit any fibre-optic wiring system.

Benefits:
– The telescopic pull-out provides optimum access to the splicing cassettes and cable clamp
– The variable cassette fixture permits twist-proof installation of all standard splicing cassettes
– The security lock fitted at the front protects against unauthorised access

Material:
– Sheet steel

Colour:
– RAL 7035

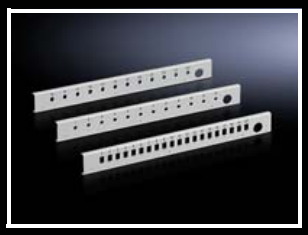
Supply includes:
– Splicing box
– Cable routing clips
– Security lock
– Cassette cover
– Mounting accessories for patch panel

Note:
– Supplied without patch panels and splicing cassettes

Units U	Maximum no. of splicing cassettes	Installation depth mm	Packs of	**Model No.**
1	2	363	1 pc(s).	**7170.535**
2	4	363	1 pc(s).	**7470.535**

Also required:
– Patch panel, see page 1101

Patch panel



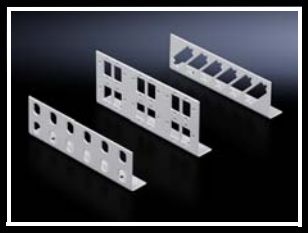
for fibre-optic splicing box, lockable
For splicing boxes, there is a choice of multiple panels with corresponding cut-outs for the installation of single or duplex fibre-optic couplings.

Material:
– Sheet steel

Colour:
– RAL 7035

Units U	For couplings	Number of locations	Packs of	**Model No.**
2	E-2000 E-2000 duplex SC LC duplex	24	1 pc(s).	**7478.535**
1	E-2000 E-2000 duplex SC LC LC duplex	20	1 pc(s).	**7178.535**
1	SC duplex LC quad	12	1 pc(s).	**7169.535**
2	ST	24	1 pc(s).	**7474.535**

Patch panels for small fibre-optic distributors



Various patch panels with different connector types are available for individual configuration of small fibre-optic distributors.

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Patch panel
– Assembly parts

For couplings	Number of locations single/duplex	Max. no. of patch panels per housing	Packs of	**Model No.**
ST	12	2	2 pc(s).	**7462.000**
SC E-2000 E-2000 duplex	12 / 6	2	2 pc(s).	**7463.100**
SC duplex	6	2	2 pc(s).	**7463.200**

LSA connection system

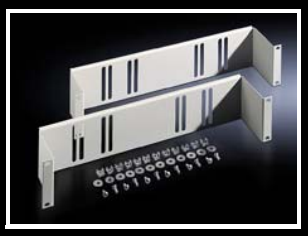
Support unit, 3 U

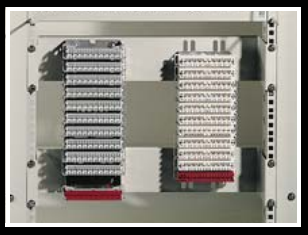
for LSA-Plus strips, max. 150 paired wires
To accommodate a maximum of 15 LSA-Plus strips (each with 10 paired wires). 3 x 5 LSA-Plus connection strips 2/10, series 2, may be installed horizontally. Strip length 124 mm, height pitch pattern 22.5 mm. The support unit may be integrated in all 482.6 mm (19") mounting levels. The mounting level is recessed 75 mm behind the 482.6 mm (19") flanges. Integral shunting rings enable tidy routing and distribution of the telecommunication cables.

Material:
– Stainless steel

Supply includes:
– Support unit, 8 shunting rings

Units U	**Model No.**
3	**7050.100**





Accommodation system, 2 U

for LSA installation kit
To accommodate LSA support systems within the 482.6 mm (19") mounting level.

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Units U	Depth mm	Packs of	**Model No.**
2	98.5	2 pc(s).	**7050.035**

Handle set

for Comfort Panel
For external mounting on corner pieces, also suitable for retro-fitting.

Material:
– Handle tube: Aluminium
– Handle holder: Die-cast zinc
– Covers: Polyamide

Surface finish:
– Handle tube: Natural anodised
– Handle holder: Powder-coated

Colour:
– Handle holder: RAL 7024
– Covers: Similar to RAL 7024

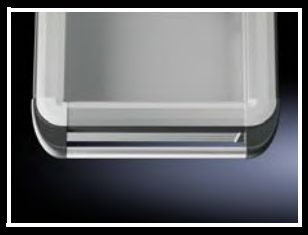
Supply includes:
– Handle tube, Ø 20 mm
– 2 handle holders
– 2 covers
– Assembly parts

For horizontal mounting

With front panel width	Packs of	Model No.
482.6 mm (19")	1 pc(s).	**6375.010**

Note:
– Shorter heights and widths can be achieved by cutting the handle tube to length
– For enclosures with 74 mm installation depth, cannot be mounted on the same side as the support arm connection

Accessories:
– Clipboard, see page 1106
– Display board, see page 1106



Handle set

for Optipanel
For external mounting on corner pieces, also suitable for retro-fitting.

Material:
– Handle tube: Aluminium
– Handle holder: Die-cast zinc
– Covers: Polyamide

Surface finish:
– Handle tube: Natural anodised
– Handle holder: Powder-coated

Colour:
– Handle holder: RAL 7035
– Covers: RAL 7024

Supply includes:
– Handle tube, Ø 25 mm
– 2 handle holders
– 2 covers
– Assembly parts

For horizontal mounting

With front panel width	Packs of	Model No.
482.6 mm (19")	1 pc(s).	**6385.010**

Note:
– Shorter heights and widths can be achieved by cutting the handle tube to length
– For enclosures with 100 mm installation depth, cannot be mounted on the same side as the support arm connection

Accessories:
– Clipboard, see page 1106
– Display board, see page 1106

Handle set

For vertical and horizontal mounting on all surfaces.

Overall length: 420 mm

Material:
– Handle tube: Aluminium
– Tube holder: Die-cast zinc

Surface finish:
– Handle tube: Natural anodised

Colour:
– Tube holder: RAL 7035

Supply includes:
– 4 tube holders
– 2 handle tubes

Packs of	Model No.
1 pc(s).	**2389.000**

Accessories:

– Clipboard, see page 1106
– Display board, see page 1106

TP aluminium strip

For retrofitting externally on:
– TP three-part/two-part
– TP one-piece console
– May be mounted on all enclosures/covers with 20 mm fold height (max. metal thickness 2 mm)

Length: 1750 mm (easily cut to length for other dimensions)

Sufficient for desk sections and consoles:
– 3 x width 600 mm
– 2 x width 800 mm
– 1 x width 1000 mm + 1 x width 600 mm
– 1 x width 1200 mm
– 1 x width 1600 mm

Length mm	Model No.
1750	**6731.120**

Material:
– Aluminium strip: Extruded aluminium section
– Cover caps: Plastic

Surface finish:
– Aluminium strip: Natural anodised

Colour:
– Cover caps: RAL 7035

Supply includes:
– 1 aluminium section
– 6 plastic cover caps
– Drilling template
– Assembly parts

Handles

For horizontal or vertical attachment to the enclosure panel of:
– Comfort Panel
– Optipanel
– Other enclosures or
– Surfaces

Mounting holes and surfaces without fins are required for assembly purposes.
For the Comfort Panel version with fins, selectable via configurators at www.rittal.com/configurators, corresponding milling work may be carried out. To this end, please specify "Prepared for handle set 6107.XXX" for the command panel.

Material:
– Handle holder: Die-cast zinc
– Cover bungs: Plastic
– Handle tube: Aluminium

Surface finish:
– Handle tube: Powder-coated

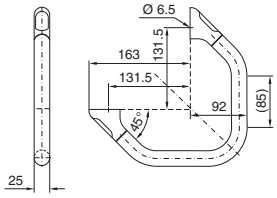
Colour:
– Handle holder: RAL 7035
– Cover bungs: Similar to RAL 7035
– Handle tube: Similar to RAL 9006

Corner handle

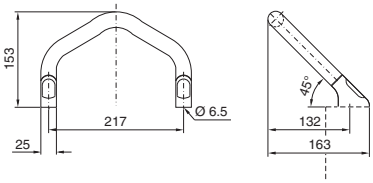
Supply includes:
– 4 handle holders
– 2 handle tubes
– Assembly parts

Packs of	**Model No.**
2 pc(s).	**6107.000**

Mounting on enclosure corner



External mounting on straight surface
(90° rotation of handle holder)

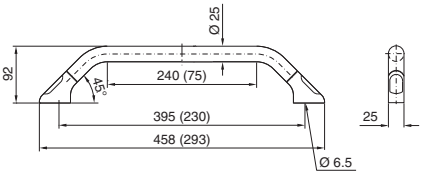


U handle

Supply includes:
– 2 handle holders
– 1 handle tube
– Assembly parts

For front panel size	Packs of	**Model No.**
≥ 7 U	1 pc(s).	**6107.100**
482.6 mm (19")	1 pc(s).	**6107.200**

Accessories:
– For 6107.200: Clipboard, see page 1106
– For 6107.200: Display board, see page 1106



Note:
– Dimensions in brackets for front size 7 U

Clipboard

For securing operating instructions or plans (A4 size) at eye level. Prepared for mounting on the right-hand side; mounting on the left is also possible by unscrewing and moving the clip part. For mounting purposes, a straight tube length of ≥ 200 mm, Ø 20 mm or Ø 25 mm is required.

Material:
– Clipboard: Sheet steel
– Clip part: Aluminium

Surface finish:
– Clip part: Natural anodised

Colour:
– RAL 7035

Width mm	Height mm	Packs of	**Model No.**
225	315	1 pc(s).	**6013.000**

Also required:
– Handle set 2389.000, see page 1104
or
– Handle set for Comfort Panel, see page 1103
or
– Handle set for Optipanel, see page 1103
or
– U handle 6107.200, see page 1105

Display board

with wall bracket

To accommodate test plans, documents etc. in A4 format.

Mounting
– On surfaces
– On a 25 mm pitch pattern of the enclosure frame or rail system
– On handle set Ø 20 mm or Ø 25 mm

Supply includes:
– Display board
– Wall bracket
– Assembly parts

Packs of	**Model No.**
1 pc(s).	**6013.100**

Accessories:
– Handle set 2389.000, see page 1104
or
– Handle set for Comfort Panel, see page 1103
or
– Handle set for Optipanel, see page 1103
or
– U handle 6107.200, see page 1105

Front panel

for Comfort Panel and Optipanel

Material:
– Aluminium, 3 mm

Surface finish:
– Natural anodised

Note:
– Mounting kits included with the supply of 520 mm wide standard enclosures.

With threaded bolts M5

Width mm	Height mm	Model No.
482.6 (19")	155.0 (3.5 U)	**6027.010**
482.6 (19")	310.3 (7 U)	**6028.010**
520	400	**6028.014**
520	500	**6028.015**
520	600	**6028.016**

Also required:
– Mounting kit for Comfort Panel 6053.800, see page 1108
– Mounting kit for Optipanel 6053.000/.500, see page 1108

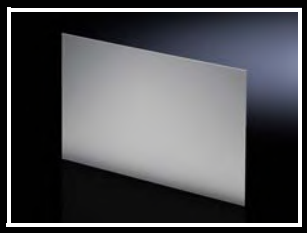
Front panel

for Compact Panel

Material:
– Aluminium, 3 mm

Surface finish:
– Natural anodised

Size W x H mm	To fit Compact Panel	Model No.
178 x 200	6340.000	**6028.500**
178 x 350	6340.100	**6028.510**
252 x 200	6340.300	**6028.530**
252 x 350	6340.400	**6028.540**



Cover plate

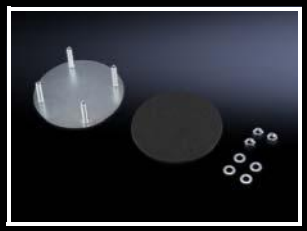
for support arm connection
For secure sealing of an unrequired support arm connection in the enclosure.

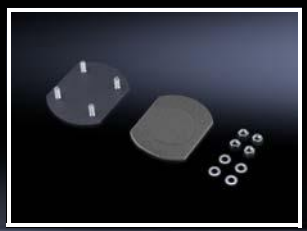
Material:
– Sheet steel

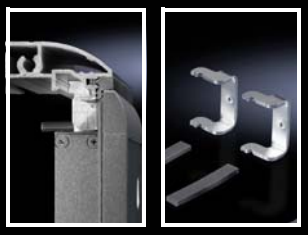
Supply includes:
– Seal and assembly parts

Note:
With
– Comfort Panel
– Optipanel
– Compact Panel
If there are already 2 support arm cut-outs provided, a cover plate is included with the supply of the enclosure

Support arm connection	Surface finish	Model No.
▭ 90 x 71 mm	Spray finished in RAL 7024	**6505.200**
Ø 130 mm	Zinc-plated, passivated	**6505.500**
▭ 120 x 65 mm	Zinc-plated, passivated	**6505.100**







Mounting kit

for Optipanel
For installation of
– Aluminium front panels
– Command panels
– Keyboards

for drilled holes

Supply includes:
– Packs of 30 retaining claws, cage nuts, screws and sealing washers

For front panels	Thread	Model No.
Other	M4	**6058.000**
Rittal and others	M5	**6053.000**

for threaded bolts

Supply includes:
– Packs of 10 retaining claws and cap screws

For front panels	Thread	Model No.
Other	M4	**6058.500**
Rittal and others	M5	**6053.500**[1)]

[1)] For the installation of TFT monitors 15", 17" and 19"

for screw clamp

Supply includes:
– Packs of 4 pressure plates, 4 attachment strips

Note:
– The command panels MP 377 12" Touch, MP 377 15" Touch are installed using an adaptor plate

For direct installation of	Model No.
Siemens Sinumerik: OP 010, OP 010C, OP 012, OP 015, OP 019, MCP 483, PP 012, Qwerty 19˝, KB 483C, TP 015A	**6053.210**
Siemens Simatic: Panel PC 477C, 577C, 677C: 12.1"-Touch, 15.1˝-Touch, 12.1"-Key, 15.1"-Key, 19"-Touch[1)], 22"-Touch[1)], Flat Panel[1)] 12", 15", 19"	
Industrial Flat Panel: IFP 1200 Touch, IFP 1500 Touch, IFP 1200 Key, IFP 1500 Key, IFP 1900 Touch, IFP 2200 Touch	
Industrial Thin Client: ITC 1200, ITC 1500, ITC 1900, ITC 2200	

The mounting set can only be installed vertically
[1)] 2 packs are required

Mounting kit

for Comfort Panel
For the installation of aluminium front panels, command panels and keyboards.

Supply includes:
– 6053.800:
20 each of retaining claws, cage nuts, screws, nuts and sealing washers
– 6053.300:
8 medium retaining claws, 8 short retaining claws, 4 long retaining claws.

Note:
– The command panels listed are merely a reduced selection of standard units from various manufacturers which support direct installation into the Comfort Panel.

1 6053.800
2 6053.300

For drilled holes/bolts/front panel mounting from behind

Thread	Model No.
M5	**6053.800**

For direct installation of e.g. operating fronts, monitors, panel PCs

For installation of	Model No.
Siemens Sinumerik: OP 010, OP 010 C, OP 012, OP 015, OP 015 A, OP 019, MCP 483 C, MCP 483, PP 012, PP 012 Erweiterung, MCP, KB 483 C, Qwerty 19"	**6053.300**
Siemens Simatic: TP 1500 Comfort, TP 1900 Comfort, TP 2200 Comfort, KP 900 Comfort, KP 1200 Comfort, KTP 1000 Basic, KTP 1500 Basic	
Panel PC 477C, 577C, 677C: 12.1" Key, 12.1" Touch, 15.1" Key, 15.1" Touch, 19" Touch, 22" Touch[1)]	
MP 377 12" Touch, MP 377 15" Touch, MP 377 19" Touch	
Industrial Flat Panel: IFP 1200 Touch, IFP 1500 Touch, IFP 1200 Key, IFP 1500 Key, IFP 1900 Touch, IFP 2200 Touch	
Industrial Thin Client: ITC 1200, ITC 1500, ITC 1900, ITC 2200	
B & R: Automation Panel, Panel PC	

[1)] 2 packs are required

TFT monitor

Installation variant for surfaces and command panels.

Benefits:
- High-quality industrial design
- Reduced installation work thanks to integral front frame
- No additional ventilation required
- Very small installation depth (45 mm)

Material:
- Front frame: Aluminium

Surface finish:
- Powder-coated

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 65 (at the front)

Supply includes:
- Seal, hex nuts (for installation in surfaces), VGA cables, threaded bolts M5 for rear mounting. Touch variants additionally with integral connection cable and driver CD-ROM.

Size	Width mm	Height mm	Model No.	
			Touch	
			Without[1)]	resistive, USB
15"	430	343	**6450.010**	**6450.070**
17"	482.6	354.8	**6450.020**	**–**
19"	482.6	399.3	**6450.170**	**–**

[1)] With anti-reflection coated safety glass screen

Note:
- Other variants as resistive touchscreen with serial or USB interface are also possible

Also required:
- Mounting kit 6053.800 (when installing in Comfort Panel), see page 1108
- Mounting kit 6053.500 (when installing in Optipanel), see page 1108
- Power pack 6450.050, see page 1109 and
- Connection cable 6450.060, see page 1109

Technical specifications	15"	17"	19"
Resolution of display (max. pixels)	1024 x 768	1280 x 1024	1280 x 1024
Resolution of controller/million colours	VGA-XGA/16.7[1)]	VGA-SXGA/16.7	VGA-SXGA/16.7
Brightness cd/m²	400	350	350
Contrast ratio	700:1	1000:1	1000:1
H-Sync. kHz/V-Sync. Hz	31.4 – 80/60 – 75	31.4 – 80/60 – 75	31.5 – 80/60 – 75
Reading angle horizontal (right/left)	80°/80°	85°/85°	85°/85°
Reading angle vertical (top/bottom)	70°/70°	80°/80°	85°/85°
Backlight/operating time h	LED/min. 50000		
On-screen display (OSD)	Operating buttons on the rear		
VGA input/DVI-D	VGA (D-SUB HD 15-pole)/DVI-D jack		
Rated voltage V (DC)	12		
Power consumption (W)	15	20	20
Operating temperature/storage temperature	0 °C…+50 °C/ -40 °C…+85 °C	0 °C…+50 °C/ -30 °C…+85 °C	0 °C…+50 °C/ -20 °C…+60 °C
Max. humidity during operation and storage, non-condensing	90% relative humidity for 240 h	80% rel. humidity for 300 h at 50 °C	80 % relative humidity

[1)] For 6450.070: 16.2

Power pack

for TFT monitor
- With IEC 60 320 connector C14 for C13 connection
- Integral cable (1.5 m) for connecting to the TFT monitor

Dimensions, W x H x D: 112 x 31 x 47 mm

Technical specifications:
- Input voltage: 100 – 240 V
- Output voltage: 12 V (DC)
- Operating temperature: +10 °C...+40 °C
- Storage temperature: -10 °C...+80 °C

Packs of	Model No.
1 pc(s).	**6450.050**

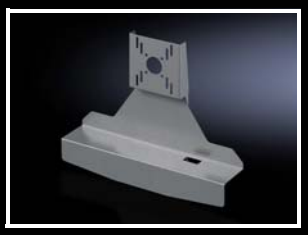
Material:
- Enclosure: Plastic

Connection cable

for power pack
With IEC 320 socket C13 at one end for C14 connectors.

Length: 1.5 m

Packs of	Model No.
1 pc(s).	**6450.060**



TFT holder

Suitable for mounting TFTs with VESA 75/100 adaptation up to 21" on
- Attachment CP 40, 6501.070, see page 187
- Attachment CP 60 for support arm connection ▭ 120 x 65 mm, 6206.360, see page 195
- Vertical support arm via tilting adaptor +100°/-60°, 6206.460, see page 209

Material:
- Sheet steel

Surface finish:
- Spray-finished

Colour:
- RAL 7024

Dimensions mm	Packs of	**Model No.**
477 x 372 x 110.5	1 pc(s).	**2383.030**

Keyboard, pull-out

with integral trackball

Super-slimline keyboard with cursor keys and trackball. The handle also serves as a hand rest. The 10° angled pullout ensures ergonomic working.

For installation in:
- Any sufficiently large surface (e.g. door, side panel)
- Front panels
- Directly in a suitably sized Comfort Panel and Optipanel, selectable via configurators at www.rittal.com/configurators

Technical specifications:
Keyboard:
- 84 short-stroke keys, IBM-AT compatible (MF2), incl. cursor keys
- With integral trackball
- Interface: 2 x USB
- Operating temperature: +5 °C...+50 °C
- Storage temperature: -10 °C...+60 °C
- Humidity: max. 95 % (non-condensing)

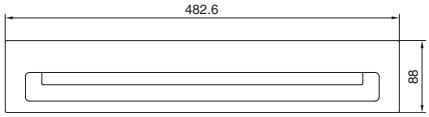
Keyboard layout	Packs of	**Model No.**
German	1 pc(s).	**6002.130**

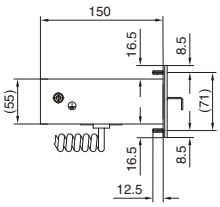
Material:
- Sheet steel

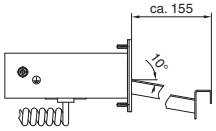
Surface finish:
- Front panel: Powder-coated

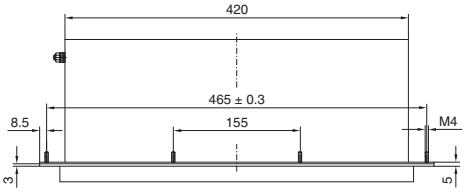
Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 65 (at the front, sealed)

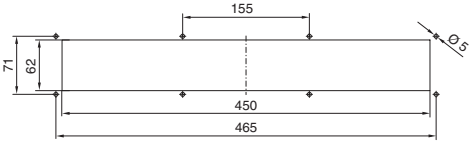








Mounting cut-out



Built-in keyboard 482.6 mm (19")/4 U

with integral touchpad

The integral touchpad eliminates the need to install an additional, correct protection category mouse, which in turn reduces cabling. The short stroke keys are easily identified by edge embossing, less force is required to operate them, and they have a good tactile action

Benefits:
- The separate number pad enables the parameters to be entered quickly
- Sealed, wipeable surface finish
- High level of mechanical and chemical resistance as per DIN 42 115.

Technical specifications:
- Number of keys: 105
- Front panel dimensions: 482.6 x 177.0 mm (19" x 4 U)
- Keyboard depth: 30 mm
- Installation depth: 27 mm
- 12 M5 x 20 threaded bolts at the rear
- Actuation travel/force: 0.3 mm/2.6 N
- Service life: 3 million switching cycles
- Operating temperature: -40 °C...+90 °C
- Touchpad resolution, capacitive: 40 pixels/mm
- Interface: USB

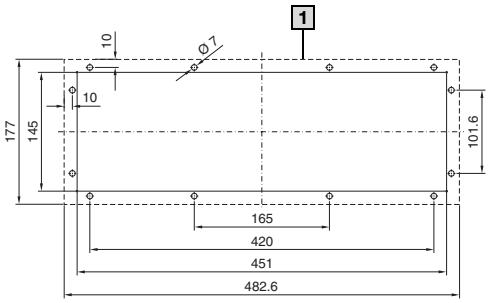
Material:
- Front panel: Aluminium

Protection category IP to IEC 60 529:
- IP 65 (at the front)

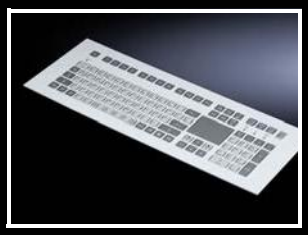
Supply includes:
- USB connection cable, length 1.8 m
- Seal
- Drilling template
- Assembly parts for surfaces

Keyboard layout	Packs of	**Model No.**
German	1 pc(s).	**6446.030**

Also required:
- Mounting kit 6053.800 (when installing in Comfort Panel), see page 1108
- Mounting kit 6053.500 (when installing in Optipanel), see page 1108



1 Support surface



Fold-out tray

for keyboard and mouse

For installation in
- 600 and 800 mm wide doors
- 482.6 mm (19") swing frames and enclosures

Standard double-bit lock insert may be exchanged for 41 mm lock inserts, type C, see page 941

Material:
- Flap: Sheet steel
- Side parts: Cast aluminium
- Tray: Extruded aluminium section
- Double-bit lock insert: Stainless steel

Surface finish:
- Flap, side parts: Textured paint
- Tray: Natural anodised

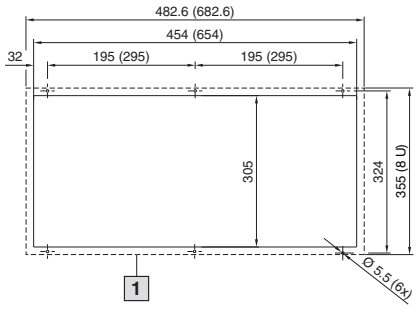
Colour:
- Flap, side parts: RAL 7035

Protection category IP to IEC 60 529:
- IP 55

Protection category NEMA:
- NEMA 12

Accessories:
- Mousepad support, pull-out, see page 1112

Mounting cut-out



1 Support surface

For door width mm	External dimensions W x H x D mm	Installation depth mm	Max. keyboard dimensions W x H x D mm	**Model No.**
600	482.6 (19") x 355 (8 U) x 126	93	405 x 45 x 245 405 x 45 x 190[1)]	**2379.600**
800	682.6 x 355 (8 U) x 126	93	605 x 45 x 245 605 x 45 x 190[1)] 475[1)] x 45 x 245	**2379.800**

[1)] Maximum keyboard size with holder for mouse

Support for mousepad, pull-out

with mouse holder
For screw-fastening into the fold-out tray 2379.600/ 2379.800, see page 1111. To fit all standard mousepads up to 250 x 205 mm.

Colour:
– RAL 7035

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**2379.900**

Utility bar, vertically hinged

To support standard keyboards during programming and servicing work. Mounting distance of utility bars for problem-free insertion: at least 300 mm. Depth adequate for keyboards up to max. 210 mm.

For mounting beneath
– Comfort Panel[1)]
– Optipanel[2)]
– Any sufficiently large surface, such as:
  – Worktops IW
  – Command panel AX with handle strips

on
– Vertical surfaces (doors/side panels)

Min. front panel width
[1)] 385 mm
[2)] 405 mm

After use, the utility bars fit securely and neatly under the mounting surface, thus giving the operator more space to move around.

Packs of	Model No.
2 pc(s).	**6514.200**

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Drawer 482.6 mm (19")/2 U

for keyboard and mouse

For installation in:
- Any sufficiently large surface (e.g. door, side panel)
- 482.6 mm (19") system punchings
- Front panels
- Directly in a suitably sized Comfort Panel and Optipanel, selectable via configurators at www.rittal.com/configurators

Suitable for
- Accommodation of keyboards up to max. 390 x 32 x 139 mm
- Support of standard commercially-available mouse or trackball

Version:
- Drawer: With stay
- Front panel: With security lock (lock no. 12321) and handle strip

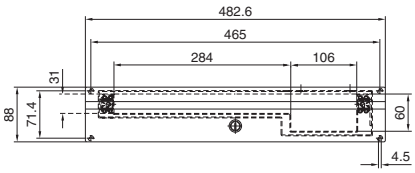
Width mm	U	Depth mm	Model No.
482.6 (19")	2	150	**6002.000**

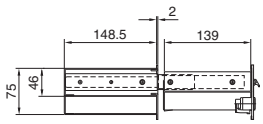
Material:
- Drawer housing: Sheet steel
- Drawer and front panel: Aluminium

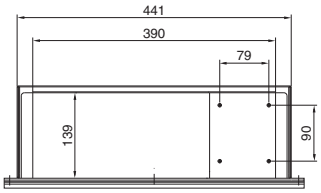
Surface finish:
- Drawer housing: Zinc-plated
- Drawer and front panel: Natural anodised

Protection category IP to IEC 60 529:
- IP 54

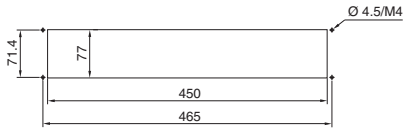
Supply includes:
- Assembly parts for installation in Comfort Panel/ Optipanel command panels







Mounting cut-out
(for installation in surfaces)



Drawer for keyboard and mouse

with mousepad support

For installation in:
– Any sufficiently large surface (e.g. door, side panel)
– Front panels

Suitable for accommodating
– Keyboards up to a maximum of 460 x 42 x 170 mm
– Standard mouse and mousepad

Version:
– Drawer and housing: With side pull-out mousepad support and tray
– Front panel: With 3 mm double-bit lock insert, folds out as handrest

Packs of	Model No.
1 pc(s).	**6003.000**

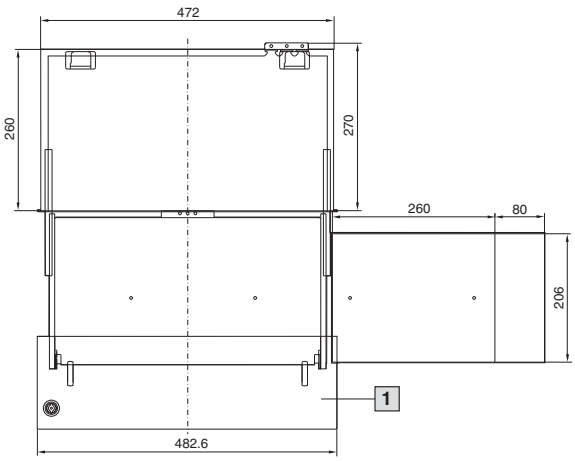
Material:
– Drawer and housing: Sheet steel
– Front panel: Aluminium

Surface finish:
– Drawer and housing: Spray-finished
– Front panel: Natural anodised

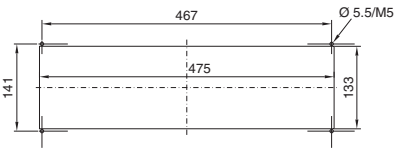
Protection category IP to IEC 60 529:
– IP 54

Supply includes:
– Assembly parts

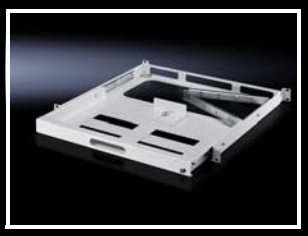
Accessories:
– Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A, see page 941



Mounting cut-out
for installation in surfaces



1 Front trim panel



Keyboard drawer 1 U

for two 482.6 mm (19") mounting levels

This space-saving keyboard drawer is screw-fastened to the front and rear 482.6 mm (19") mounting angles. The installation spacing is infinitely adjustable from 460 – 750 mm. It is fully extendible, lockable, with strain relief and hinged cable support. The drawer is suitable for accommodating 482.6 mm (19") keyboards.

Interior dimensions:
– W x H x D: approx. 420 x 40 x 220 mm

Material:
– Sheet steel

Colour:
– RAL 7035

Supply includes:
– Assembly parts, excluding keyboard

Note:
– Monitor/keyboard unit, 1 U, see page 822

Distance between levels mm	Model No.
460 – 750	**7281.200**

Keyboard drawer 2 U

for one 482.6 mm (19") mounting level
For keyboards up to 430 mm wide and 250 mm deep with the front panel folded over.

Height: 2 U

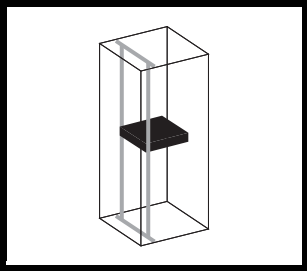
Material:
– Sheet steel with aluminium front

Surface finish:
– Spray-finished

Supply includes:
– Lockable drawer with handles
– Folding front
– Pull-out mousepad
– Mouse support
– Practical cable entry and strain relief

Colour	Packs of	Model No.
RAL 7035	1 pc(s).	**7281.035**
RAL 9005	1 pc(s).	**5302.205**

Installation depth: 390 mm



Support for mousepad

for command panels and surfaces
The angle of the mousepad support is individually adjustable. Two holes are needed on the enclosure for attachment purposes.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Weight kg	Packs of	Model No.
1.0	1 pc(s).	**2381.000**

Accessories:
– Holder for mouse, see page 1116

Keyboard support

for command panels or surfaces

Benefits:
– Adjustable to different keyboard depths via a simple slide function
– Connection to command panels with support arm connection at the top or bottom
– Easily adjustable tilt angle
– Open support at the side prevents dirt from being deposited

Installation options:
– Operating housing AX with handle strips
– Operating housing AX for desktop TFT up to 24"
– External mounting on vertical surfaces and beneath horizontal surfaces

Technical specifications:
– Support surface fully depth adjustable from 128 – 228 mm

Material:
– Sheet steel
– Hand rest: Extruded aluminium section

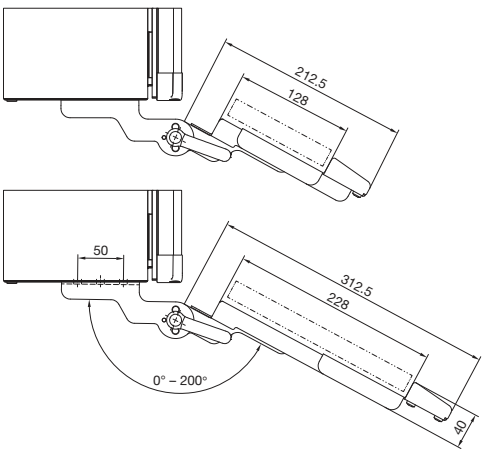
Surface finish:
– Textured paint
– Handrest: Natural anodised

Colour:
– RAL 7035

Width mm	Weight kg	Packs of	Model No.
430	3.0	1 pc(s).	**6321.010**

Supply includes:
– Support fully preassembled
– Nylon tape for attaching the keyboard
– Assembly parts

Accessories:
– Mousepad support, vertically hinged, see page 1116



Mousepad support, vertically hinged

For mounting on the left/right, beneath the keyboard support. Latches home automatically, both when retracted and extended. With mounting holes for holder for mouse 2382.000.

Material:
– Sheet steel

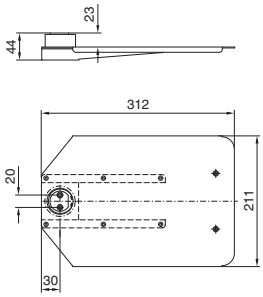
Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts and mousepad, stuck on with adhesive

Packs of	Model No.
1 pc(s).	**2383.020**

Accessories:

– Holder for mouse, see page 1116



Holder for mouse

To fit mousepad support and for secure accommodation of a standard mouse.

Material:
– Sheet steel

Surface finish:
– Zinc-plated

Supply includes:
– Assembly parts

Packs of	Model No.
1 pc(s).	**2382.000**

Paper removal flap

For installation in surfaces
Facilitates easy removal of pages from the printer without opening the enclosure door. Acrylic glazed flap with magnetic lock.

Paper removal flap	Colour	Packs of	Model No.
A4	RAL 7015	1 pc(s).	**6903.200**

Base

for tubular door frame
The space-saving alternative to component shelves for accommodating tower PCs (maximum 20 kg). For screw-fastening to the tubular door frame of 600 mm wide enclosures.

Load capacity:
– 20 kg

Material:
– Sheet steel

Surface finish:
– Spray-finished

Colour:
– RAL 7015

Supply includes:
– Retaining strap and assembly parts

Width x height x depth mm	Packs of	Model No.
445 x 159 x 230	1 pc(s).	**6902.950**

Also required:

– Support strip for direct screw-fastening to the tubular door frame, see page 952

Interface extension with wall connection and built-in RJ45 module

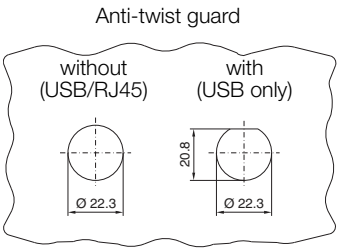
For extending the internal enclosure interfaces – e.g. of industrial PCs and switches – up to the outside of the enclosure. The wall connection only needs the same space as a switch.

Benefits:
- Rapid access for maintenance work
- The protection category of the enclosure is preserved
- The lock nut cuts automatically into the spray-finish or eloxal layer, thereby creating a conductive connection
- Captive protective cap

Material:
- Housing: Brass
- Cover: Aluminium
- Seal: Polyamide

Surface finish:
- Housing: Nickel-plated
- Cover: Natural anodised

Protection category IP to IEC 60 529:
- IP 66/67 (with protective cap closed)



Material thickness: 1 – 6 mm

Version	Wall connection	Inside	Length m	Packs of	Model No.
USB 2.0	Type A jack	Type A connector	0.5	1 pc(s).	**2482.210**
			1.0	1 pc(s).	**2482.220**
			2.0	1 pc(s).	**2482.230**
RJ45	Jack	Connector	0.5	1 pc(s).	**2482.700**
			1.0	1 pc(s).	**2482.710**
			2.0	1 pc(s).	**2482.720**
RJ45	Jack	Jack	–	1 pc(s).	**2482.730**

Interface flap

for RC circuit-breakers

According to standard EN 60 204-1, all circuits with a rated current of ≤ 20 A that supply sockets in or on machine enclosures must be fused with a residual-current circuit-breaker with a rated differential current of ≤ 30 mA. Prepared for the installation of standard, 2-pole RCBO circuit-breakers.

Applications:
- As programming interface for controllers
- As maintenance access for networks
- For temporary connection of additional equipment
- For quick connection to existing network structures
- For programming and maintenance of integral components

Version:
- Spring-action terminals max. 2 x 2.5 mm, connection at rear

Benefits:
- Protection against fault currents and overload
- Standard-compliant fuse to EN 60 204
- The RC switch may be reset without opening the enclosure
- Spring mechanism raises the unlocked cover by 30°, ensuring that you do not forget to close the cover

Functions:
- A snap fastener ensures reliable sealing. This may be locked if required.

Material:
- Mounting frame: Plastic PBT (black)
- Plastic flap: Polycarbonate (semi-transparent)

Protection category IP to IEC 60 529:
- IP 65

Supply includes:
- Interface flap, complete, consisting of plastic frame, socket (VDE), RJ45 (jack/jack, Cat 5e) and cut-out for RC circuit-breaker
- Knockout provided for USB A (jack/jack)
- 3 mm double-bit with slot-in rotary knob

Note:
- Interface flap may only be used with fitted RC circuit-breaker

Width mm	Height mm	Required mounting cut-out mm	Installation depth mm	Rated operating voltage V, ~, Hz	Rated current A	Packs of	Model No.
131	127	117 x 91	70	250, 1~, 50/60	10 - 16	1 pc(s).	**2482.600**

1

2

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12

Interface flap, modular

For universal use in all situations where rapid access to interfaces and sockets is needed. The affected enclosure remains closed and is therefore protected from ambient influences and unauthorised access.
Space-saving installation e.g.
– in **small enclosures and compact enclosures** as a programming interface for controllers
– in **IT and industrial distributors** as maintenance access for networks
– in **PC enclosures and console systems** for the temporary connection of additional equipment
– in mobile **industrial workstations** for rapid connection to existing network structures
– in **command panel systems** for programming and maintenance of integral components.

The mounting frame has a flap which snaps into position at various opening angles from 90 to 180°. A snap fastener ensures reliable sealing. This may be locked if required.

Material:
– Mounting frame and metal flap: Die-cast zinc
– Plastic flap: Polycarbonate (semi-transparent)
– Lock: Polycarbonate, RAL 7024

Surface finish:
– Mounting frame and metal flap: Matt nickel-plated

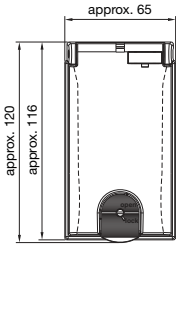
Colour:
– Lock: RAL 7024

Protection category IP to IEC 60 529:
– IP 65 (with sealed flap and proper assembly)

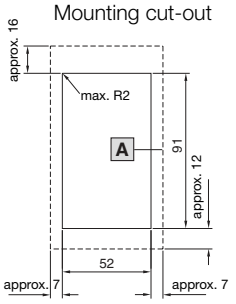
Description	cUR	UR	Packs of	Model No.
Mounting frame[1)]				
1 Single, with plastic flap (semi-transparent)	–	–	1 pc(s).	**2482.300**
Double, with plastic flap (semi-transparent)	–	–	1 pc(s).	**2482.310**
2 Single, with metal flap	■	■	1 pc(s).	**2482.320**
3 Double, with metal flap	■	■	1 pc(s).	**2482.330**
Socket modules				
4 Germany (VDE), spring-action terminals max. 2 x 2.5 mm², connection at rear	–	–	1 pc(s).	**2482.400[3)]**
5 Germany (VDE), screw terminals max. 6 mm², connection at rear, colour: yellow (RAL 1016), for installation in front of master switch	–	–	1 pc(s).	**2482.410[3)]**
Interface inserts				
6 2 x SUB-D9 (jack/pin)	■	■	1 pc(s).	**2482.500**
7 SUB-D9 (jack/jack)	■	■	1 pc(s).	**2482.510**
8 2 x USB A (jack/jack)	■	■	1 pc(s).	**2482.540[2)]**
9 RJ45 (jack/jack, Cat. 5e), SUB-D9 (jack/jack), SUB-D9 (pin/pin)	■	■	1 pc(s).	**2482.550**
10 2 x RJ45 (jack/jack, Cat. 5e)	■	■	1 pc(s).	**2482.560[2)]**
11 USB A (jack/jack), RJ45 (jack/jack, Cat. 5e), SUB-D9 (jack/pin)	■	■	1 pc(s).	**2482.570[2)]**
12 Blanking plate (slimline), for individual population, usable area: 45 x 75 mm	■	■	1 pc(s).	**2482.590**

[1)] Electrically conductive
[2)] Conductively linked to mounting frame
[3)] Rated voltage: 250 V, Rated current: 10 – 16 A
All SUB-D interfaces may be rotated while in use

Interface flap, single

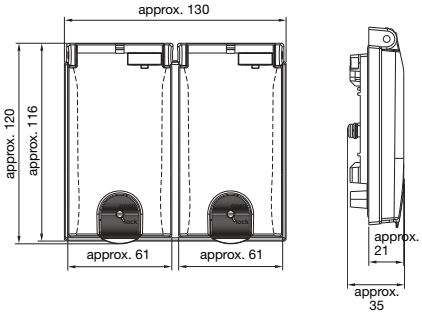


Mounting cut-out

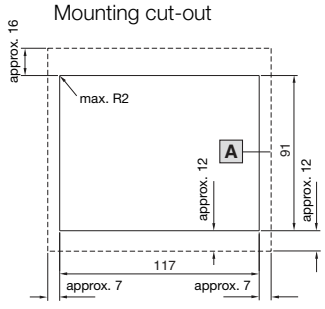


Permissible material thickness: 1 – 5 mm
A Contact surface

Interface flap, double



Mounting cut-out



Signal pillars

For real-time display of operating statuses

Signal pillars at a glance

Plug-and-play system

Signal pillar, 3-way LED

For wall/base mounting	For conduit mounting
Model No.	
2372.102	**2372.101**

1 LED steady light component 24 V AC/DC, < 35 mA
2 LED steady light component 230 V, < 35 mA
3 LED flashing light component 24 V AC/DC
4 LED flashing light component 230 V
5 Stroboscopic light component 24 V (DC), < 35 mA
6 Acoustic component 24 V AC/DC, 95 – 105 dB (continuous tone or pulsating)
7 Acoustic component 24 V AC/DC, 102 dB (adjustable volume and choice of 8 sounds)
8 Acoustic component 230 V, 95 – 105 dB (continuous tone or pulsating)
9 Acoustic component 230 V, 102 dB (adjustable volume and choice of 8 sounds)
10 Mounting component for support arm system CP 40, steel
– angle piece 90° 6501.140
11 Mounting component for support arm system CP 60
– Angle adaptor 90° for support arm combination CP 60 to CP 40 6206.640
– Angle coupling 90° 6206.380
– Angle piece 90° 6206.600
– Intermediate hinge 6206.620
– Wall-mounted hinge 6206.740
– Top-mounted joint 6206.700
12 Mounting component for support arm system CP 120
– Angle coupling 90° 6212.380
– Angle piece 90° 6212.600
– Intermediate hinge 6212.620
– Wall-mounted hinge 6212.740
– Top-mounted joint 6212.700
12 Mounting component for support arm system CP 180
– Angle piece 90° 6218.600
– Top-mounted joint 6218.700

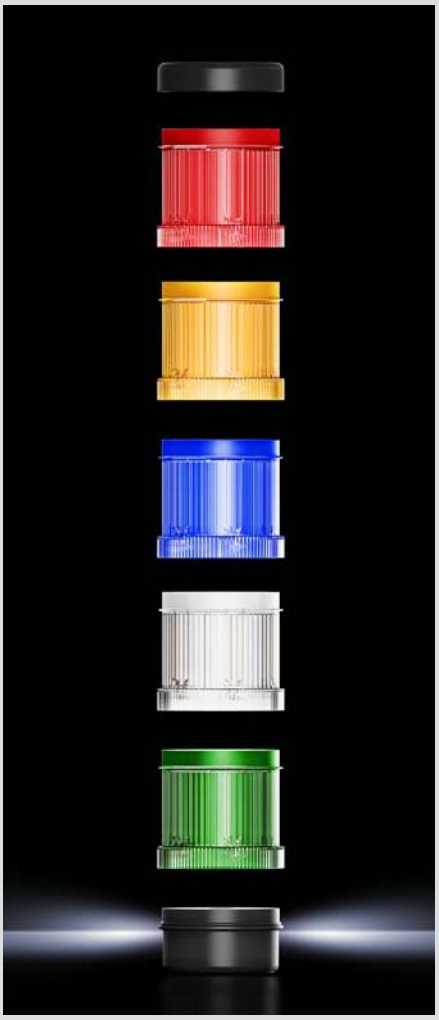
Label panel

Model No.
2374.150

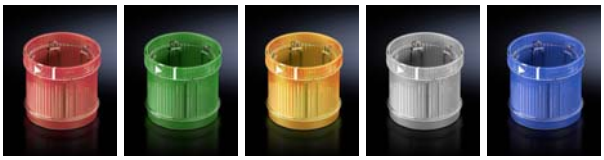
Mounting component for conduit mounting

Base with integral conduit, Ø 25 mm, 110 mm long	Individual base	Individual conduit, 250 mm long	Individual conduit, 400 mm long	Angle bracket for conduit mounting
Model No.				
2374.000	**2374.010**	**2374.020**	**2374.030**	**2374.050**

Modular system



Optical component for signal pillar, modular



	Red	Green	Yellow	Clear	Blue
	Model No.				
1	2372.001	2372.011	2372.021	2372.031	2372.041
2	2370.151	2370.161	2370.171	–	–
3	2370.501	2370.511	2370.521	2370.531	2370.541
4	2370.551	–	2370.571	–	–
5	2371.001	–	2371.021	–	–

Acoustic component

	Model No.
6	2376.001
7	2376.011
8	2376.021
9	2376.031

Connection component for signal pillar, modular

For conduit mounting	For wall/base mounting
Model No.	
2368.001	2368.002

Mounting component for support arm systems

10	11	12
Model No.		
2375.030	6206.900	6212.900

Mounting component for wall/base mounting

Bracket for connection component	For side cable outlet
Model No.	
2374.040	2374.080

Signal pillar, 3-way LED

Benefits:
– Complete plug-and-pay solution
– Extremely long service life of the LEDs (max. 100,000 hours, therefore maintenance-free)
– Minimal assembly work and warehousing costs

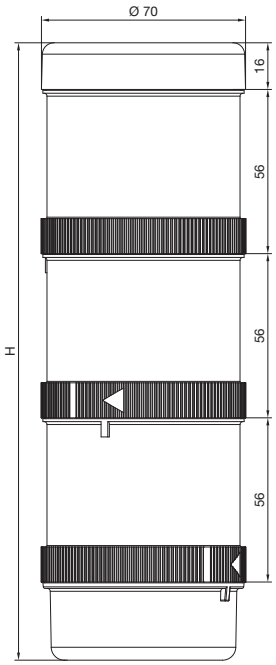
Technical specifications:
– 3-stage: red, yellow and green
– Operating voltage: 24 V AC/DC
– Electrical connection: Screwless spring terminals
– Lamp: LED
– Transmission angle: 3 x 120°
– Operating temperature: -20 °C...+50 °C
– Flashing function: Controllable via PLC
– Cable entry: Metric screwed cable gland M12 x 1.5 for cable diameter 3.0 – 6.5 mm

Protection category IP to IEC 60 529:
– IP 65

Design	Packs of	H mm	**Model No.**
for conduit mounting	1 pc(s).	210.5	**2372.101**
for base mounting	1 pc(s).	212.0	**2372.102**

Accessories:

– Mounting component, see page 1125/1126
– Label panel, see page 1127



Signal pillar, modular

Benefits:
- Simple assembly and contact using bayonet fastener
- Configuration of up to five components with the same voltage
- Flashing and stroboscopic light component including lamp, for direct use
- Components available in a range of colours and voltages

For modular configuration of
- Connection components
- Optical components
- Acoustic components
- Label panel

Connection component

for signal pillar, modular
- Optionally for conduit or wall/base mounting
- Screwless spring terminals in the connection component
- With cover for optical components
- Contact hazard protection to VDE
- 12 – 230 V AC/DC

Material:
- Polyamide enclosure

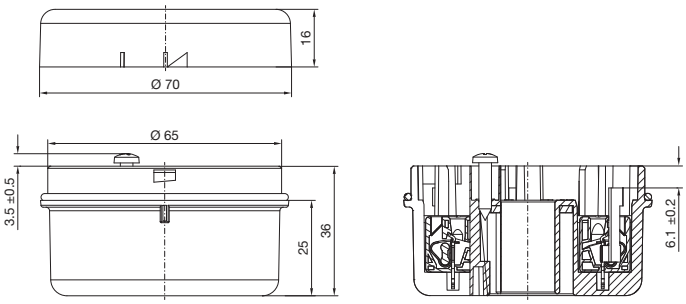
Colour:
- Black

Protection category IP to IEC 60 529:
- IP 65

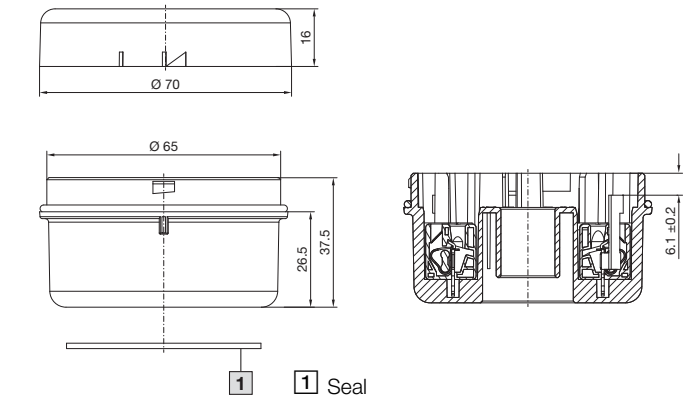
Connection component	Model No.
for conduit mounting	**2368.001**
for wall/base mounting	**2368.002**

Accessories:
- Mounting component, see page 1125/1126

Connection component for conduit mounting 2368.001



Connection component for wall/base mounting

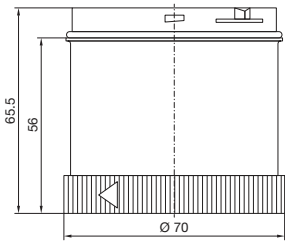


Optical component

for signal pillar, modular
- With 360° signal transmission thanks to optimised prism system
- No. of potential stages = 5 components, with identical voltage

Material:
- Enclosure: Polyamide
- Spherical cap: Transparent polycarbonate

Protection category IP to IEC 60 529:
- IP 65, provided a cover or acoustic component is fitted at the top



LED steady light component 24 V AC/DC, < 35 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2372.001	**2372.011**	**2372.021**	**2372.031**	**2372.041**

LED steady light component 230 V, < 35 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2370.151	**2370.161**	**2370.171**	**–**	**–**

LED flashing light component 24 V AC/DC, < 30 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2370.501	**2370.511**	**2370.521**	**2370.531**	**2370.541**

LED flashing light component 230 V, < 35 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2370.551	**–**	**2370.571**	**–**	**–**

Stroboscopic light component 24 V (DC), < 35 mA

Model No.				
Red	Green	Yellow	Clear	Blue
2371.001	**–**	**2371.021**	**–**	**–**

Mounting component

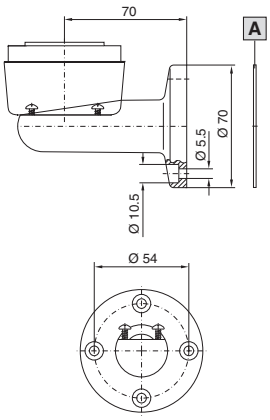
for wall/base mounting

Fig.	Mounting component	Colour	**Model No.**
1	Bracket for connection component	Black	**2374.040**
2	For side cable outlet	Black	**2374.080**

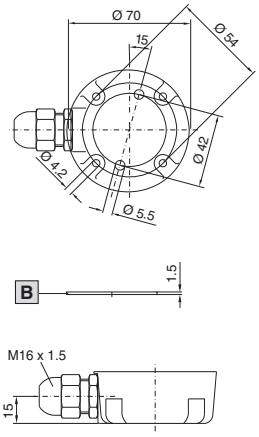
Also required:

– With the modular system for wall/base mounting: Connection component 2368.002, see page 1123

Bracket for connection component



For side cable outlet



A Seal
B Flat seal

Mounting component

for support arm systems

For external mounting of a signal pillar on the plastic cover of support arm components.

Fig.	Mounting component	Colour	**Model No.**
3	For support arm system CP 40, steel – Angle piece 90° 6501.140	RAL 7024 (graphite grey)	**2375.030**
4	For support arm system CP 60 – Angle adaptor 90° for support arm combination CP 60 to CP 40 6206.640 – Angle coupling 90° 6206.380 – Angle piece 90° 6206.600 – Intermediate hinge 6206.620 – Wall mounted hinge 6206.740 – Top mounted joint 6206.700	RAL 7024 (graphite grey)	**6206.900**
5	For support arm system CP 120 – Angle coupling 90° 6212.380 – Angle piece 90° 6212.600 – Intermediate hinge 6212.620 – Wall-mounted hinge 6212.740 – Top-mounted joint 6212.700	RAL 7024 (graphite grey)	**6212.900**
	For support arm system CP 180 – Angle piece 90° 6218.700, – Top-mounted joint 6218.700	RAL 7024 (graphite grey)	**6212.900**

Also required:

– With the modular system for conduit mounting: Connection component 2368.001, see page 1123

Mounting component

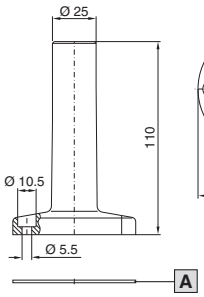
for conduit mounting

Fig.	Mounting component	Colour	**Model No.**
6	Base with integral conduit, Ø 25 mm, 110 mm long	Black	**2374.000**
7	Individual base	Black	**2374.010**
8	Individual conduit, 250 mm long	Aluminium	**2374.020**
	Individual conduit, 400 mm long	Aluminium	**2374.030**
9	Angle bracket for conduit mounting	Black	**2374.050**

! Also required:

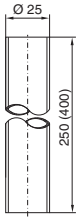
– With the modular system for conduit mounting: Connection component 2368.001, see page 1123

Base with integral conduit

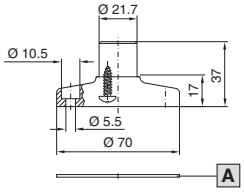


A Seal

Individual conduit

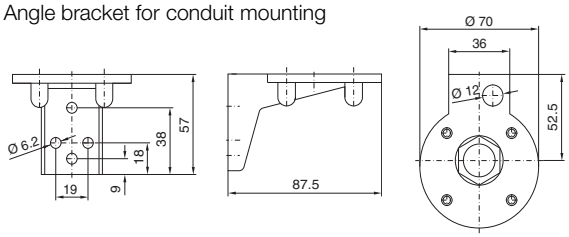


Individual base, plastic



A Seal

Angle bracket for conduit mounting



Acoustic component

for signal pillar, modular
To indicate warnings or malfunctions.

Material:
– Enclosure: Polyamide

Colour:
– Black

Protection category IP to IEC 60 529:
– IP 65

Note:
– For mounting only on the upper end of the optical components or directly onto the connection component

24 V AC/DC

Acoustic components	Packs of	Model No.
105 dB[1)]	1 pc(s).	**2376.001**
102 dB[2)]	1 pc(s).	**2376.011**

[1)] Continuous tone or pulsating
[2)] Adjustable volume and choice of 8 sounds

230 V

Acoustic components	Packs of	Model No.
105 dB[1)]	1 pc(s).	**2376.021**
102 dB[2)]	1 pc(s).	**2376.031**

[1)] Continuous tone or pulsating
[2)] Adjustable volume and choice of 8 sounds

Label panel

for signal pillar, 3-way LED and signal pillar, modular
For adding texts on up to 5 optical components, with break point for any fields that are not required (50 x 150 mm), including clamping section for base / conduit with Ø 25 mm.

Material:
– Acrylic, transparent

Label panel	Model No.
for 5 optical components	**2374.150**

The 3-phase coating procedure

Coating procedure	Technical properties	Technical specifications	
Surface pretreatment	Used as corrosion protection and to improve paint adhesion.	Degreasing, nanoceramic conversion layer	
Anodic dipcoat priming	Even layer formation on all surfaces, edges and in cavities, which produces a high level of corrosion protection even at the assembly stage.	Erichsen cupping test to DIN EN ISO 1520	≥ 4 mm
		Buchholz hardness to DIN EN ISO 2815	≥ 80
		Cross cutting to DIN EN ISO 2409	Gt 0
	The primer is readily overpainted and free from heavy metals, chromate and silicone.		
Stove enamelling			
Textured powder coating	Powder-coating is distinguished by a high level of mechanical resistance, excellent corrosion protection, good resistance to chemicals and temperature, and its facility for decontamination.	Erichsen cupping test to DIN EN ISO 1520	≥ 3.5 mm
		Buchholz hardness to DIN EN ISO 2815	≥ 85
		Cross cutting to DIN EN ISO 2409	GT 0-1
		Salt spray test to DIN EN ISO 9227 NSS	Test period: 168 hrs
		Condensate test to DIN EN ISO 6270-2 CH	Test period: 500 hrs
		Condensate test to DIN EN ISO 6270-2 AHT	Test period: 20 cycles
	The powder coating is readily overpainted and is free from heavy metals, chromate, silicone and solvents.		
Stove enamelling			

The coating is resistant to:
- Mineral oils
- Lubricants
- Machine emulsions
- Alcohol-based solvents (briefly, e.g. during cleaning)
- Weak acids and alkalines

Primer or powder coating suitable for overpainting

After careful cleaning of the surface, the standard coating may be overpainted with
- DD gloss paints
- Single and dual-component gloss paints
- Car repair paints
- Powder paints
- Water-based paints

If in doubt, perform a compatibility test. Always follow the paint manufacturer's instructions. When overpainting, take care not to exceed 180 °C and a baking time of 15 minutes.

Outdoor use of enclosures

In order to guarantee satisfactory long-term function of enclosures in outdoor use, the relevant environmental factors must be taken into account.

These include:
- UV radiation, the corrosive action of air pollution, rain, icing, snow, wind or other factors in special climatic conditions.

Condensation inside the enclosure
Condensation must be prevented by means of appropriate measures, e.g. by venting or heating the enclosure.

Protection category
The enclosure may be exposed to extreme weather conditions during outdoor use.
Long periods of rain, snow, ice, high winds and temperature fluctuations place particularly high demands on the enclosure sealing. The protection category IP X3 as envisaged for external weather conditions in DIN VDE 0100, part 737, point 5.2 is often insufficient to provide permanent protection for electrical equipment.

Protection categories to IEC 60 529 (EN 60 529)

The IP protection category is characterised by 2 numerals.	
Example of a protection category, e.g. IP 43:	
Code letters IP	
First numeral 4	Second numeral 3

Degrees of protection for protection against contact and foreign bodies: First numeral			**Degrees of protection for protection against water: Second numeral**		
First numeral	Degree of protection		Second numeral	Degree of protection	
	Description	Explanation		Description	Explanation
1	Protected against solid foreign objects with a diameter of 50 mm and greater	The object probe, a sphere 50 mm in diameter, must not penetrate fully.[1]	1	Protected against vertically falling water drops	Vertically falling drops shall have no harmful effects.
2	Protected against solid foreign objects with a diameter of 12.5 mm and greater	The object probe, a sphere 12.5 mm in diameter, must not penetrate fully.[1] The articulated test finger may penetrate up to its length of 80 mm, but adequate distance from hazardous parts must be adhered to.	2	Protected against vertically falling water drops when the enclosure is tilted up to 15°	Vertically falling drops shall not have any harmful effects when the enclosure is tilted up to 15° on either side of the vertical.
3	Protected against solid foreign objects with a diameter of 2.5 mm and greater	The object probe, a sphere 2.5 mm in diameter, must not penetrate at all.[1]	3	Protected against sprayed water	Water sprayed at an angle of up to 60° on either side of the vertical shall have no harmful effects.
4	Protected against solid foreign objects with a diameter of 1.0 mm and greater	The object probe, a sphere of 1.0 mm in diameter, must not penetrate at all.[1]	4	Protected against splashed water	Water splashed on the enclosure from any direction shall have no harmful effects.
5	Dust-protected	The ingress of dust is not fully prevented, but dust shall not enter to such an extent as to impair satisfactory operation of the device or safety.	5	Protected against water jets	Water directed at the enclosure from any direction in a jet shall have no harmful effects.
6	Dust-tight	No ingress of dust at a partial vacuum of 20 mbar inside the enclosure.	6	Protected against powerful water jets	Water directed at the enclosure from any direction in a powerful jet shall have no harmful effects.
			7	Protected against temporary immersion in water	Water must not ingress to such an extent as to cause harmful effects when the enclosure is temporarily immersed in water under standardised pressure and time conditions.
			8	Protected against continuous immersion in water	Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed under conditions to be agreed between the manufacturer and the user. However, the conditions must be more difficult than for numeral 7.
			9	Protected against high-pressure and high-temperature water jets	Water projected at high pressure and high temperature against the enclosure from any direction shall not have harmful effects.

[1] The full diameter of the object probe must not pass through an opening of the enclosure.

Automatic potential equalisation via the mounting components (while observing DIN EN 62 208)

UL type rating

UL (Underwriters Laboratories) is an independent organisation based in Chicago which safety-tests products for the North American market. A key aspect for enclosures is the protection of individuals from unintentional contact with equipment and the protection of installed equipment from external factors. Protection categories are classified by UL type ratings.

Further information on protection categories may be found on the Internet at: **www.rittal.com**

UL/NEMA Type	Intended use and description
1	Enclosures for use indoors Protection against the penetration of foreign bodies
3	Enclosures for use indoors and outdoors Protection from rain, hail, dust, icing and the damage caused by icing
3R	Enclosures for use predominantly outdoors Protection from rain, hail, icing and the damage caused by icing
3S	Enclosures for use predominantly outdoors Protection from rain, hail and dust External mechanisms remain usable despite being coated in ice
4	Enclosures for indoor or outdoor use Protection against rain, foreign bodies, splashed water and hosed water and against damage caused by icing on the exterior of the enclosure
4X	Enclosures for indoor or outdoor use Protection against rain, foreign bodies, splashed water and hosed water and against damage caused by icing on the exterior of the enclosure Increased protection from corrosion
12, 12K	Enclosures for use indoors Protection against dust deposits, foreign bodies, oil and non-corrosive dripping refrigerants
13	Enclosures for use predominantly indoors Protection against dust deposits, sprayed water, oil, and non-corrosive refrigerants

The UL/NEMA classifications are not directly comparable with IP protection categories, since both the test conditions and the evaluation of the test results are different

Approvals and permits

Product certifications and approvals are pivotal to the global acceptance of industrial products.
Rittal products meet the highest internationally recognised quality yardsticks. All components are subjected to the most stringent testing in accordance with international standards and regulations.
The consistently high product quality is ensured by a comprehensive quality management system. Regular production inspections by external test institutes also guarantee compliance with global standards

A precise allocation of products to marks of conformity can be found on our product and service pages on the Internet: **www.rittal.com**

Earthing

The PE conductor connection must be designed by the manufacturer of switchgear in accordance with the relevant VDE and/or local regulations.
The enclosure packs generally contain earthing materials (screws, nuts, washers). The assembly instructions contain recommendations on installing a PE conductor.
The pre-assembled earth straps, available as accessories in various cross-sections and lengths, are intended to make assembly of a PE conductor easier.

Stainless steel, rust-proof

Rust-proof stainless steel is a collective term for more than 120 different types of steel, all of which are alloyed with at least 10.5% chromium and are resistant to corrosion without any protective coating. They form an invisible passive layer under the influence of oxygen.

Short name	x 5 CrNi 1810	x 2 CrNiMo 17-12-2
Material number	1.4301	1.4404
Principal property	easy to weld corrosion-resistant malleable	weldable highly corrosion-resistant
Typical uses	Foodstuffs industry Dairies	Chemical industry Construction sector Paper industry
Chemical composition/mass content in %		
Carbon C	< 0.07	< 0.07
Chromium Cr	17.5/19.5	16.5/18.5
Molybdenum Mo	–	2.0/2.5
Nickel Ni	8.0/10.5	10.0/13.0

Benefits

- Highly resistant to corrosion and chemical substances
- Outstanding hygiene properties and minimal cleaning effort, thanks to the smooth surface
- No need to treat the surface with enamel or paint
- Environmentally friendly, as 100% recyclable
- Good material properties (tensile strength, expansion, abrasion)

Rittal – The System.

Faster – better – everywhere.

FRIEDHELM LOH GROUP

SERVICE & QUALITY

International service

Global availability 1134
Our service portfolio 1136

Rittal Manufacturer's Service

Service for industrial applications 1140
Service for machines 1144
Service for IT infrastructure 1146

Smart Service

Smart Service – Predictive and efficient 1150
Smart Service – Bespoke and demand-driven 1152

Quality management

Quality management 1154

Software & services

Value chain 1156
Optimum value creation for all target groups 1158
Software and tools for industry 1160
Software and tools for IT infrastructure 1161

Competent. Globally present. A one-stop service.

Use our service to minimise downtimes, boost efficiency and benefit from the following advantages:

- Around 1,000 service specialists worldwide
- Highly qualified service technicians and infrastructure specialists
- Solid expert knowledge with manufacturer expertise
- Ready availability of original spare parts
- Maximum system availability
- Short response times
- Professional lifecycle management
- 24-hour availability

Whenever, wherever and however you need us, we are always on hand to assist you!

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Your requirements

Enhanced system availability

Cost and resource savings

What we offer

- Assembly, installation, commissioning
- Fast trouble-shooting
- Inspection
- Professional maintenance

International service – Global availability

Value retention and maintenance

Rapid access to spare parts

Modernisation

- Original spare parts
- Bespoke service agreements
- Efficiency and system advice
- Individual optimisation and sustainability

Installation and commissioning

Correctly installed equipment is less susceptible to errors and operates more efficiently. You can be sure that the manufacturer's expertise is applied to the installation and commissioning of your Rittal components.

The benefits for you:

- Reliability from the outset
- Less susceptible to errors
- More efficient operation of your systems

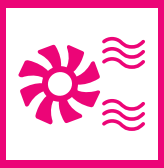
Maintenance and inspection

The remaining service life of the installed components can be significantly extended with professional maintenance by the Rittal service team. This ensures efficient operation and associated cost savings. The additional inspection and leak test by certified service engineers guarantees compliance with statutory regulations, such as the F-gas regulation (EU) No. 517/2014, which in turn ensures the efficient operation of your equipment.

Visual inspection and assessment of the general condition of your equipment

Measurement and documentation of system parameters

Basic cleaning of the equipment



Inspection of fans, air routing and system parameters

The benefits for you:

- Downtime is prevented, to minimise your risks
- Improved value retention for your systems
- The remaining service life of installed components is extended
- Efficiency is increased by up to 30%, with associated cost savings

International service – What we offer

Repairs and troubleshooting

Rittal service engineers are continuously trained to provide top-quality, on-site troubleshooting. The result? 90% of Rittal's service deployments are resolved with just one on-site visit and include a detailed service report with further recommendations. Alternatively, you may opt to send your equipment to our factory for repair.

The benefits for you:

- Fast, professional troubleshooting
- Minimised downtimes
- Reliable service performance

Spare parts – any time, anywhere

Global availability of individual parts adds value

Professional spare parts management ensures maximum availability of spares, because optimum stocking ensures that repairs can be carried out without delay.

- Original spare parts
- Express shipment with 24h delivery promise (working days only)
- Customer-specific stocking of spare parts, either at Rittal or at your premises
- Our Global Distribution Centre has over 2,000 different standard spare parts in stock
- Local availability, with stocks held by Rittal subsidiaries worldwide
- Predictive replacement of worn parts thanks to professional life cycle management

Life cycle management

Knowing the age and condition of installed equipment enables predictive replacement of worn parts. This reduces downtimes and also allows you to plan costs. Here, too, you can rely on the support of Rittal's after sales service team.

International service – What we offer

Efficiency and service check

Regular checks of your Rittal components will ensure maximum performance of all cooling units while keeping consumption levels to a minimum.

During the efficiency check, Rittal will analyse your installed equipment for current performance and energy costs. Based on the findings, Rittal will advise you on potential savings and efficiency enhancements and will calculate the amortisation periods of any investments that may be required. The service check is more comprehensive than the efficiency check and includes an analysis of the current status of your equipment, highlighting any maintenance requirements, and incorporating this into your investment calculation.

The benefits for you:

- Performance analysis of installed equipment
- Presentation of energy costs and potential savings
- Reduction of unscheduled production stoppages and associated costs
- Specific energy-saving approaches
- The value of your equipment is preserved

Note:

Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.

Rittal Manufacturer's Service – Service for industrial applications

Service agreements – Individual and combinable

Rittal service agreements allow you to tailor the scope of services to your specific requirements and combine various modules – with fixed, transparent terms and conditions.

The benefits for you:

- Maximum uptime
- Plannable costs
- Guaranteed response times
- Warranty extension
- Individual stocking of spares

	Scope of services included in standard agreement		Optional modules	
Maintenance	1 x per year		2 x per year	
Availability	Working days (Mon – Fri) 7 am – 5 pm	Working days (Mon – Fri) 24 hours	Every day of the week (Mon – Sun) 24 hours	
On-site service	Next working day (Mon–Fri) 7 am–5 pm	Next week day (Mon – Sat) 7 am–5 pm	Within 8 hours	Within 4 hours
Warranty extension	No contract commitment, separate agreement	Contract extension +12/+24/+36 months	Preventive replacement of worn parts +12/+24/+36 months	
Stocking of spare parts	At Rittal	At Rittal and delivered within 24 hours	Individually agreed	
Inspection	1 x per year	4 x per year	12 x per year	

Note:

Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.

Rittal Manufacturer's Service – Service agreements for industrial applications

Rittal Automation Systems – Professional service for your machines

No-one knows your machines better than the manufacturer.
Our Manufacturer's Service specialists safeguard the availability and performance of your machines. Regular maintenance of your machines ensures a long service life and a high degree of fail-safe operation.
With our service, you can benefit from consistently high quality and rely on your machines operating exactly as expected.

Service agreements – Individual and combinable

Rittal service agreements allow you to tailor the scope of services to your specific requirements and combine various modules – with fixed, transparent terms and conditions.

	Scope of services included in standard agreement	Optional modules
Maintenance	1 x per year	2 x per year
Availability	Working days (Mon – Fri) 7 am – 5 pm	Every day of the week (Mon – Sun) 24 hours
On-site service	Within 72 hours, incl. reduced hourly rate	Within 48 hours, incl. reduced hourly rate
Warranty of the machine	No warranty extension	+ 12 months
Individual stocking of spares	On request	
DXF remote training	One training session	
Software update	As necessary (but excluding hardware/PC or operating system replacement)	

Note:

Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.

Rittal Manufacturer’s Service – Service for machines

Maintenance and troubleshooting

Modern IT systems are the lifeblood of many companies. As data volumes grow ever larger and more complex, today it is more important than ever before to rely on a functioning digital infrastructure which is always available. Detailed expert knowledge, short response times and exceptional support quality are basic requirements for every Rittal service. Put your trust in our proven abilities.

IT Health Check

Exceptional performance and early risk detection by servicing your IT infrastructure.

The IT Health Check provides an insight into the maintenance status of your cooling systems and any leaks, as well as energy efficiency and sustainability, the capacity utilisation and scalability of your systems, any obsolescence risks, alarm chains, redundancy circuits, and compliance with statutory requirements, guidelines and standards.

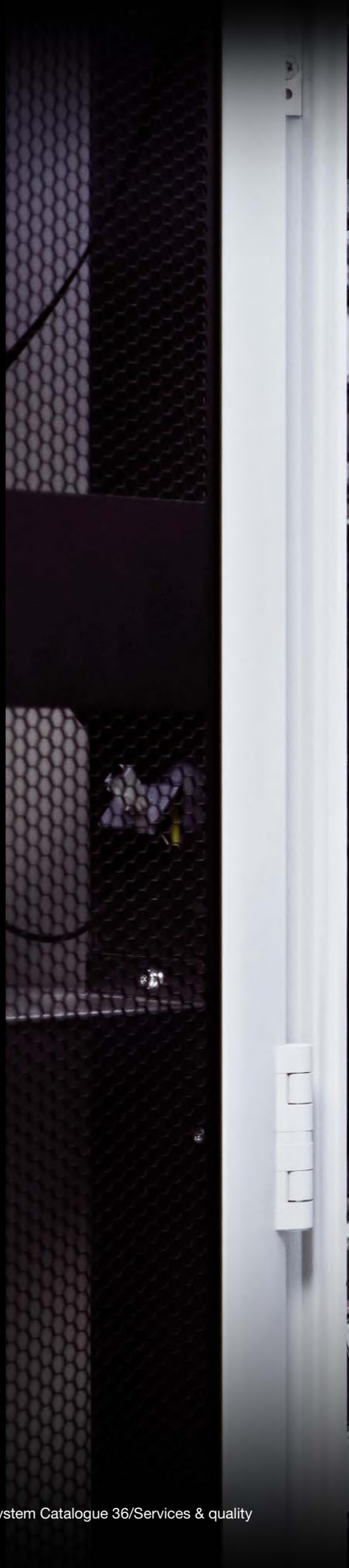
As the outcome of the IT Health Check you will receive an assessment report containing individual optimisation and organisation options including identified cost drivers, potential savings and risk minimisation associated with the optional, predictive replacement of wearing parts.

The benefits for you:

- Individual optimisation and modernisation options
- A list of identified cost drivers and potential savings
- Risk management with predictive replacement of wearing parts

Note:

Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.



Rittal Manufacturer's Service – Service for IT infrastructure

Service agreements – Individual and combinable

Rittal service agreements allow you to tailor the scope of services to your specific requirements and combine various modules – with fixed, transparent terms and conditions.

The benefits for you:

- Maximum uptime
- Plannable costs
- Guaranteed response times
- Individual stocking of spares
- Warranty extension

	Scope of services included in standard agreement		Optional modules	
Maintenance	1 x per year		2 x per year	
Availability	Working days (Mon – Fri) 7 am – 5 pm	Working days (Mon – Fri) 24 hours	Every day of the week (Mon – Sun) 24 hours	
On-site service	Next working day (Mon–Fri) 7 am –5 pm	Next week day (Mon–Sat) 7 am–5 pm	Within 8 hours	Within 4 hours
Warranty extension	+12/+24/+36 months, includes defined spare parts and repairs		+12/+24/+36 months, includes defined spare parts, repairs and predictive replacement of wearing parts	
Stocking of spare parts	At Rittal	At Rittal and delivered within 24 hours	Individually agreed	
Inspection	1 x per year	4 x per year	12 x per year	
Leakage test	1 × per year from 5 t CO_2 equivalent	2 × per year from 50 t CO_2 equivalent	4 × per year from 500 t CO_2 equivalent	
Replacement of wearing parts	By operating hours			

Note:

Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.

Rittal Manufacturer's Service – Service agreements for IT infrastructure

Smart Service

Increased machine availability and optimised service processes for Rittal components in the Blue e+ generation.

Rittal Smart Service visualises the operational performance of Blue e+ cooling units and transfers data in real time for prompt identification of maintenance requirements and critical errors. The automated processing of device data allows fast, efficient troubleshooting.

In the event of a malfunction, you receive situation-specific recommendations and can generate energy efficiency reports via the Rittal Smart Service portal.

Benefit from a combination of event-related recommendations and manufacturer expertise, remote diagnosis and advice from Rittal service experts as the basis for your predictive maintenance.

The advantages to you:

- Asset management and control of maintenance measures
- Visualisation of device data via Web portal including monitoring (condition monitoring)
- Access to operating and temperature characteristics
- Energy efficiency reports and efficiency analyses
- Situational recommendations based on manufacturer expertise

How you benefit:

- Enhanced machine availability
- Increased service efficiency and lower servicing costs, thanks to requirement-driven maintenance
- Fast problem analysis and troubleshooting with remote diagnosis

Note:

Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.

Blue e+ generation

Smart Service – Predictive and efficient

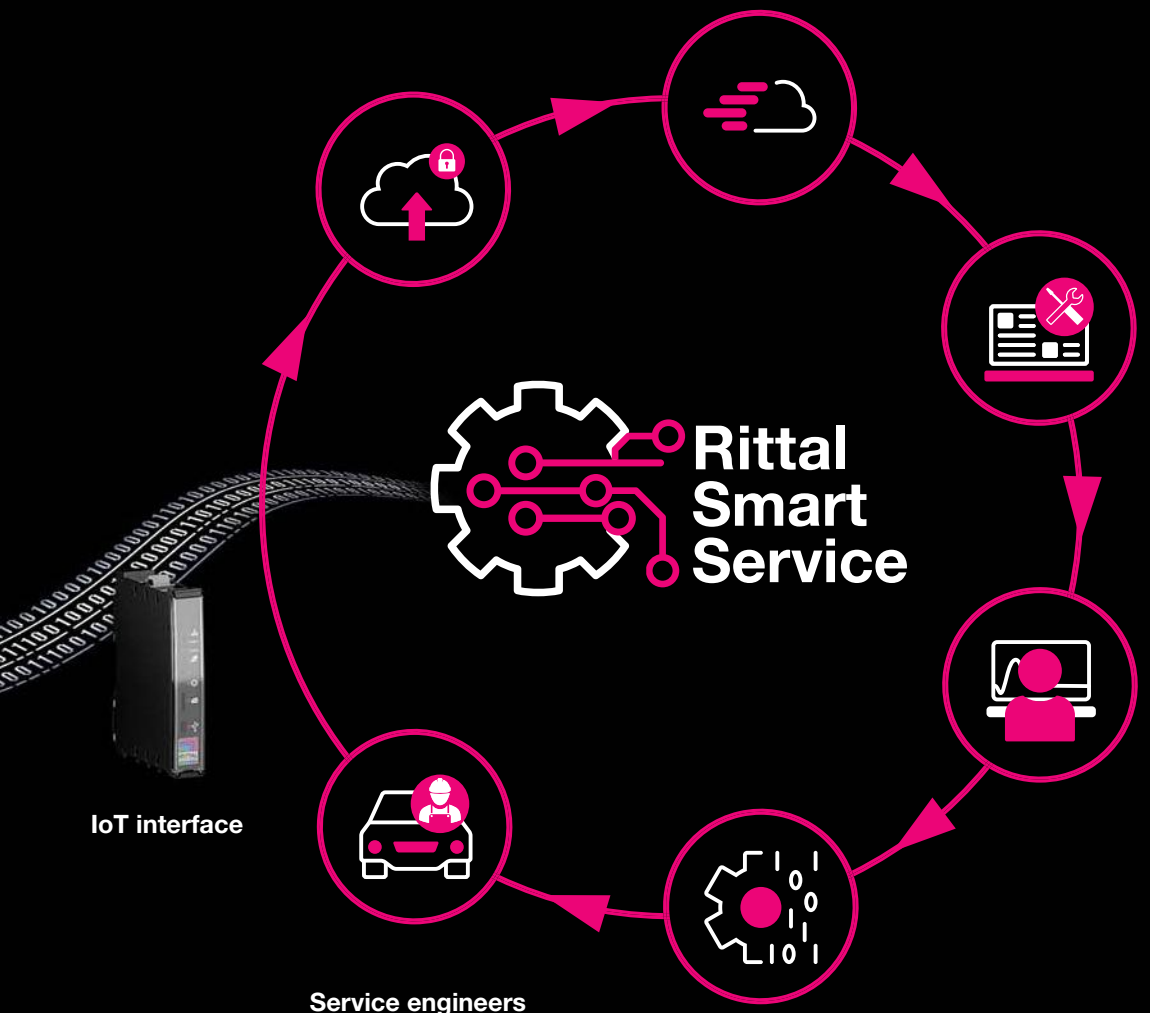
Smart Service Cloud

- Unidirectional, encrypted data transmission
- Certified Cloud in Germany

Data analyses

Based on manufacturer expertise

- Development of intelligent algorithms
- The basis for preventive maintenance



Smart Service Portal

- Overview of networked devices (asset management)
- Access to operating data
- The latest messages and recommended actions
- Energy consumption

Monitoring by Rittal service experts

- Continuous monitoring of device statuses in real time
- Remote diagnosis with manufacturer know-how
- Situational advice on optimum measures

IoT interface

Service engineers

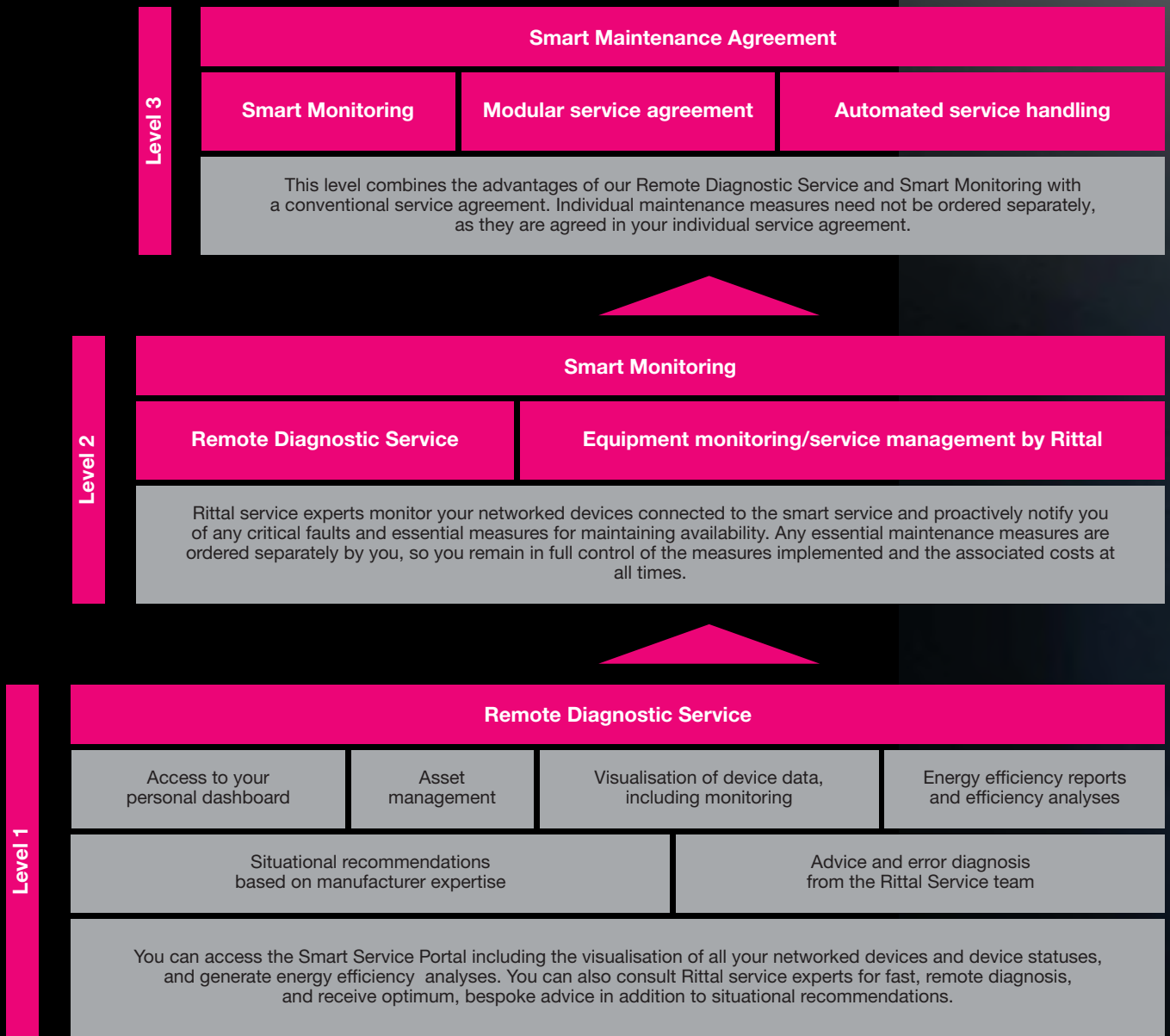
- Respond on demand
- Ensure fast, efficient on-site troubleshooting

Automated handling

- Identification of the correct spare part
- Initiation of service measures

Smart Service – Bespoke and demand-driven

You can opt into our Smart Service at any time and flexibly adapt it to suit your requirements. In this way, we tailor the appropriate service level and range of services to each individual customer.
Rittal Smart Service offers various different service levels, which build on one another to become ever more comprehensive.



Note:
Please contact your local ASM or customer service team to discuss the scope and availability of this service in your region.

Rittal Service

Please contact us with any questions you may have relating to our service portfolio; we will be happy to issue quotes and provide practical assistance.
www.rittal.com/service-worldwide

Quality management is a must. Quality philosophy is an attitude.

“Rittal – The System.” stands for consistent quality management and on-going refinements to products, services and internal processes.

Rittal quality management ensures that regulations and standards are observed, and individual customer requirements are met. In addition to this, we also define our exacting product quality demands in supplementary Rittal standards. The consistent Rittal quality philosophy guarantees perpetually high standards and ensures the global usability of all products with countless international approvals and licences.

Alongside product quality, we also focus on process and service quality.

All internal processes are continuously refined by quality control groups, and reviewed during in-house audits. Each year, our improvements and high standards are verified by countless successful external system and customer audits.

Rittal offers support from day one

- Project planning of technical specifications
- Prototype assembly, testing and simulations
- Manufacturing and assembly
- Warehousing service and on-time delivery
- Your own personal point of contact throughout the entire project

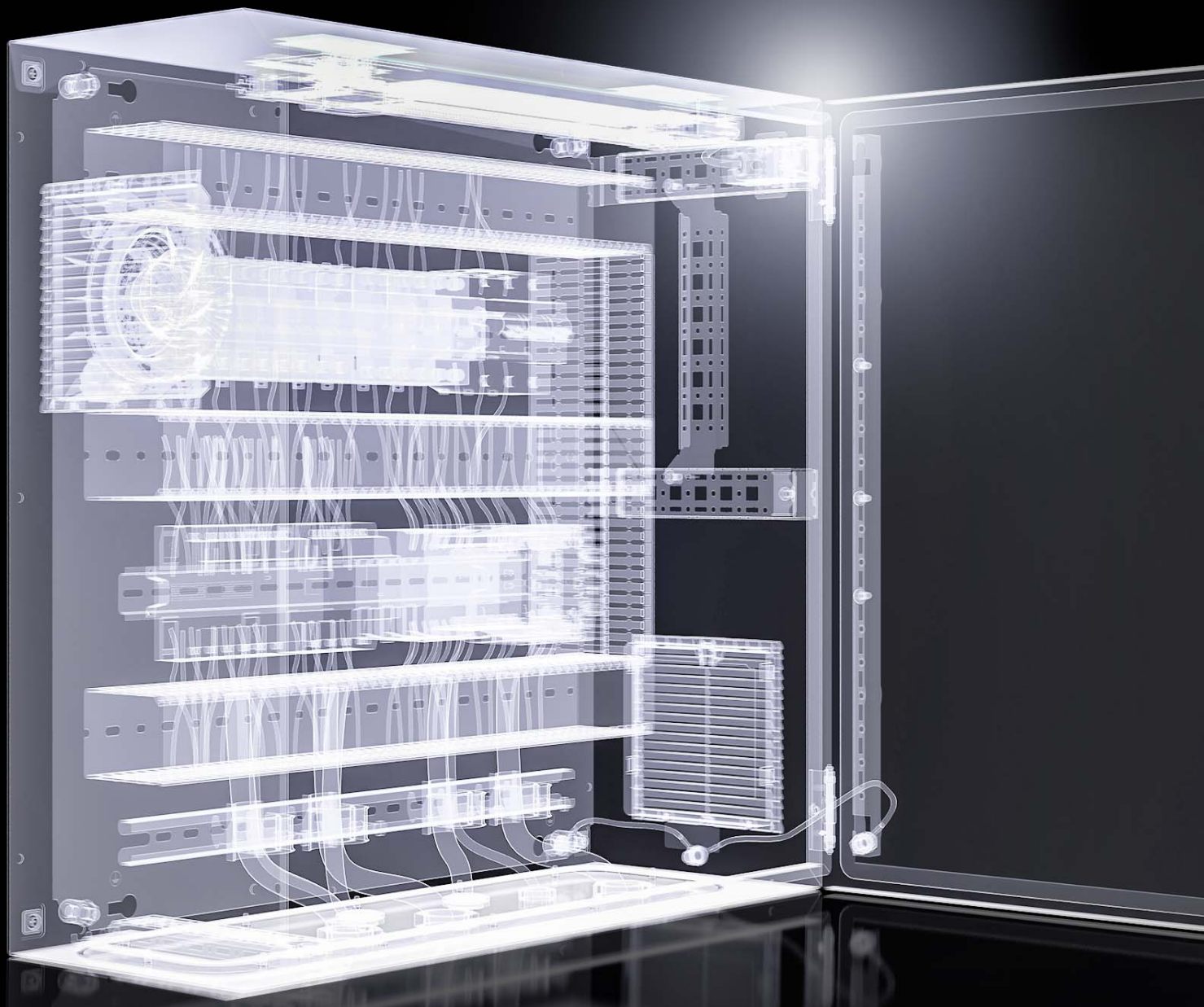
Accredited Rittal test laboratory

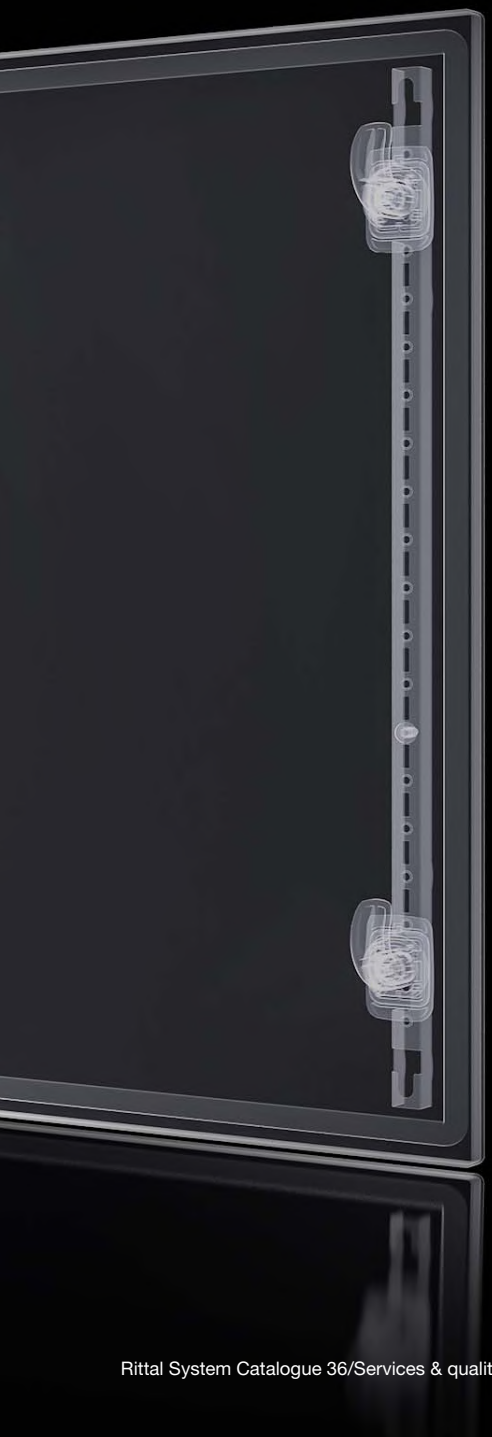
- Simulation of climatic conditions
- Dynamic and static load tests
- 3D measurement
- Testing of IP/IK protection categories and NEMA type ratings
- Corrosion testing
- Electrical safety and function tests
- Software tests
- Performance testing of chillers, cooling units and heat exchangers
- Material testing

Quality management

Project handling with Rittal and Eplan tools

Software and services spanning the entire value chain





Boost your efficiency everywhere – with individual software and service modules from Rittal and Eplan

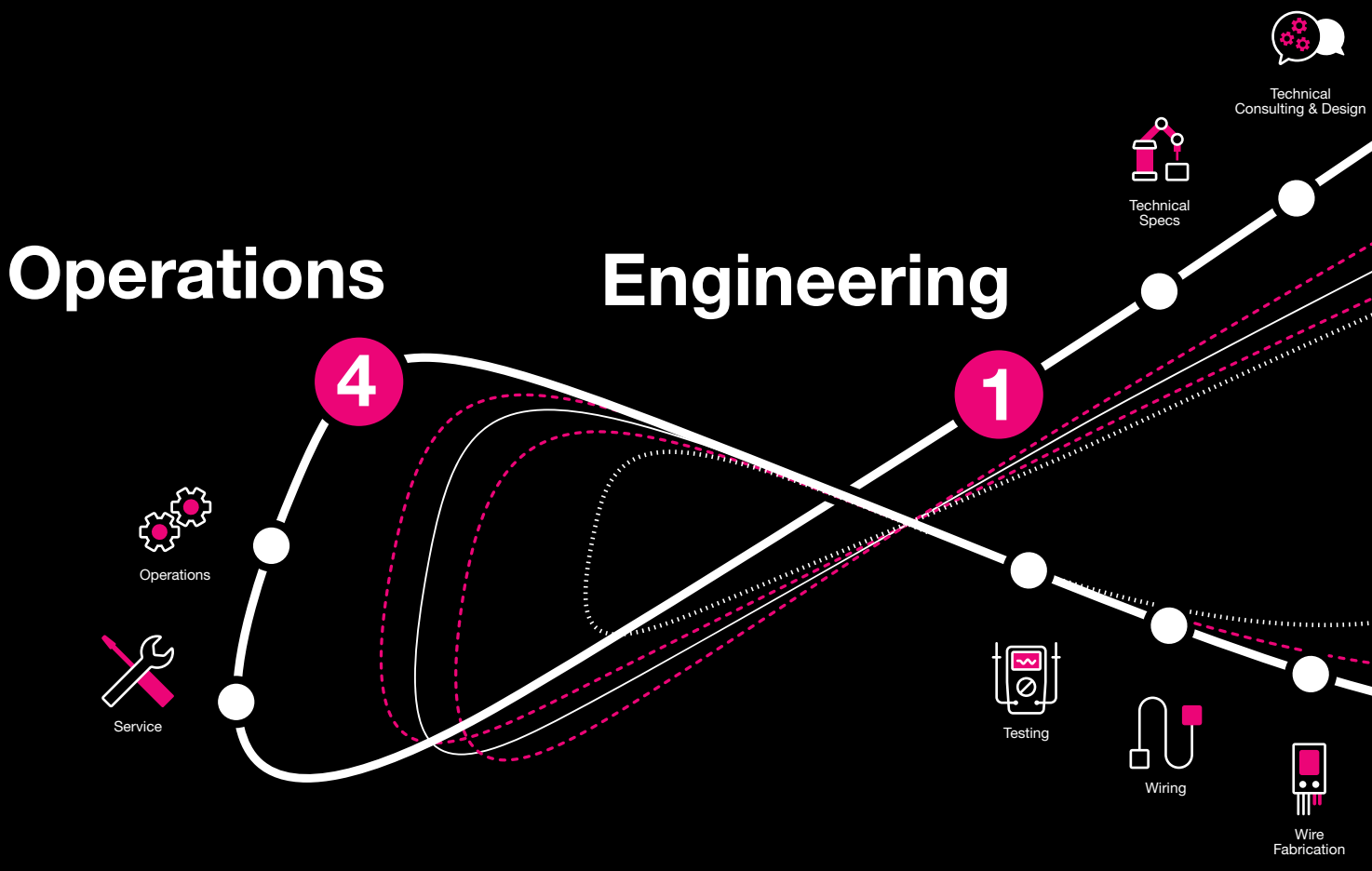
From small businesses and medium-sized companies to fully automated large-volume producers, our comprehensive portfolio provides every rack and controlgear manufacturer with a suitable selection of software and service modules tailored precisely to their individual production process. Optimum compatibility between all tools, even those that are not currently required or used, ensures maximum continuity and efficiency in both manual, semi-automated and fully automated production.

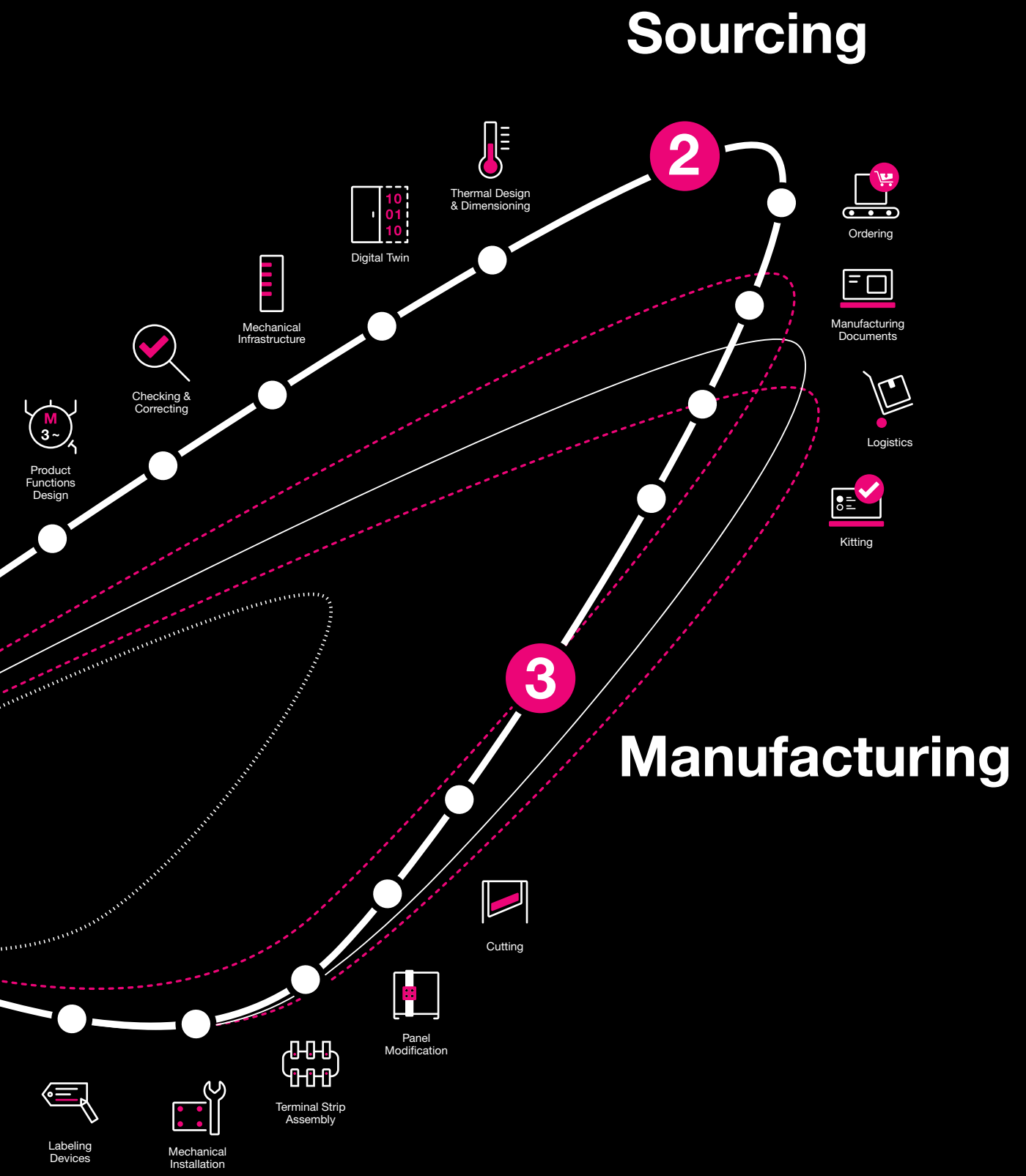
The benefits for you:

- Efficient software tools
- Plausibility-checked product and accessory configurations
- Plan cut-outs and drilled holes
- Generate tested manufacturing documents for the configured racks
- Transfer data into Eplan tools
- Enquire about configured products or order directly online
- Transfer data into Rittal machining centres
- Service modules tailored to individual requirements

Optimum value creation for all target groups

Tools that guide users simply and efficiently to their individual product configuration provide the starting-point for successful project planning. These are not complex engineering solutions but user-friendly software tools which in just a few minutes can help you to find the right product or simply redefine the parameters for a cooling unit.




Sourcing
2
Thermal Design & Dimensioning
10 01 10
Digital Twin
Mechanical Infrastructure
Checking & Correcting
M 3~
Product Functions Design
Ordering
Manufacturing Documents
Logistics
Kitting
3
Manufacturing
Cutting
Panel Modification
Terminal Strip Assembly
Mechanical Installation
Labeling Devices

Software and tools for industry

Enclosure

Rittal Configuration System
Select, plan and order plausibility-checked enclosures and components easily.
See page 272

Command panel configurators
for aluminium command panels
The online configurators for Comfort Panel and Optipanel help you to configure individual, perfectly coordinated panel solutions.
See page 273

Support arm configurator
for CP 40/60/120/180, support section, height-adjustable
Plausibility-checked planning of support arm systems.
See page 273

Online conversion assistant for small enclosures KX and compact enclosures AX
Convert quickly and easily with the parts list converter.
See page 274

Power Distribution

VX25 Power Engineering
The Web-based tool guides users quickly and efficiently through the entire switchgear planning process in simple, logical steps.
See page 446

Climate Control

Chiller configurator
The chiller configurator is a cost-effective way of selecting your required machine and process cooling.
See page 558

Therm software
Clever climate control planning
Therm takes care of the time-consuming calculation of your climate control requirements and proposes a suitable selection of products.
See page 558

RiDiag
RiDiag is a software package for the diagnosis and analysis of cooling units and chillers to ensure proper operation and to simplify maintenance and the diagnosis of system messages.
See page 559

Blue e+ app
The Blue e+ app supports the contactless exchange of information as well as rapid on-site analysis via the NFC interface.
See page 559

Rittal Automation Systems

Take value creation to the next level by working more efficiently with the latest tools and new automation solutions.
See page 560

General

CAD data
Greater efficiency in plant design
2D and 3D CAD data for all Rittal components in more than 70 different formats, for use in all standard commercially available CAD systems. Fast online access to original files in all common CAD formats.
See page 274

Product scan app
All product information in a single scan
Fast access to all relevant product information by scanning the QR code on the product.
See page 274

Eplan

Engineering solutions from Eplan help companies to optimise their controlgear and switchgear manufacturing processes. At its heart is the digital twin, which uses seamless data to link all value creation processes together.
See page 14

Further configurators may be found on the Internet at
www.rittal.com/configurators

Software and tools for IT infrastructure

Racks and enclosures

Rittal Configuration System
Easily select plausibility-checked enclosures and components, plan machining and place your order.
See page 272

IT infrastructure selector
The selector supports partners, system integrators, system engineers and end clients in selecting the right IT products for their specific application.
See page 874

RiMatrix S Selector
Your standardised data centre selector for SMEs, branch concepts and flexible cloud applications. Your solution is configured on the basis of standardised data centre modules.
See page 874

Micro Data Center configurator
Configuration of your security safe, including a range of configuration components.
See page 874

IT power

PDU configurator
The PDU configurator helps you to configure and equip customised PDUs. The PDU portfolio allows you to generate the optimum product for your application.
See page 875

IT cooling

IT cooling calculator
Easily select water-based Liquid Cooling Packages (LCP) for rack and suite cooling for your IT infrastructure.
See page 875

Blue e+ app
The Blue e+ app supports the contact-less exchange of information as well as rapid on-site analysis via the NFC interface.
See page 559

General

CAD data
Greater efficiency in plant design
2D and 3D CAD data for all Rittal components in more than 70 different formats, for use in all standard commercially available CAD systems. Fast online access to original files in all common CAD formats.
See page 274

Product scan app
All product information in a single scan
Fast access to all relevant product information by scanning the QR code on the product.
See page 274

DCIM – Data Centre Infrastructure Management
RiZone provides perfect support for your IT infrastructure components. Customer-centric and cost-efficient
See page 828

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1037.000	AX	86
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1076.000	AX	88
1077.000	AX	89
1090.000	AX	89
1091.000	AX	89
1100.000	AX	90
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1116.000	AX	91
1130.000	AX	91
1180.000	AX	90
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1214.000	AX	91
1260.000	AX	89
1261.000	AX	89
1280.000	AX	90
1281.000	AX	90
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1304.000	AX	239
1305.000	AX	240
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1571.800	KX	970
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1588.000	KX	233
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1592.200	KX	951
1592.210	KX	951
1594.010	KX	965
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1937.200	EL	1092
1939.200	EL	1092
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1963.200	SR	1078
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2370.171	SG	1124
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2370.571	SG	1124
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2372.102	SG	1122
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2374.010	SG	1126
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2374.030	SG	1126
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2500.630	SZ	1023
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2500.650	SZ	1023
2500.660	SZ	1024
2500.670	SZ	1024
2500.680	SZ	1023
2500.710	SZ	1022
2500.711	SZ	1022
2500.712	SZ	1022
2500.713	SZ	1022
2500.714	SZ	1022
2500.715	SZ	1022
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2504.500	SZ	1004
2504.800	SZ	1004
2505.510	SZ	967
2506.120	SZ	1042
2508.020	AX	966
2509.010	AX	964
2510.000	SZ	955
2512.000	SZ	955
2513.000	SZ	955
2514.000	SZ	955
2515.000	SZ	955
2515.200	AX	954
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2515.400	AX	954
2519.010	SZ	956
2519.200	CM	956
2521.000	SZ	945
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2542.235	SK	539
2543.235	SK	539
2545.000	SZ	945
2546.000	SZ	945
2547.000	SZ	945
2548.000	SZ	945
2549.000	SZ	945
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2569.000	SZ	1033
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3201.970	SK	550
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3215.100	SK	511
3215.700	SK	515
3216.480	SK	514
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3235.450	SK	548
3236.124	SK	539
3237.020	SK	538
3237.060	SK	537
3237.066	SK	535
3237.080	SK	538
3237.100	SK	456
3237.110	SK	456
3237.124	SK	456
3237.200	SK	537
3237.600	SK	459
3238.020	SK	538
3238.055	SK	536
3238.060	SK	537
3238.066	SK	535
3238.080	SK	538
3238.100	SK	456
3238.110	SK	456
3238.124	SK	456
3238.200	SK	537
3238.500	SK	461
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3241.100	SK	457
3241.110	SK	457
3241.124	SK	457
3241.500	SK	461
3241.600	SK	460
3243.020	SK	538
3243.060	SK	537
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3243.100	SK	457
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3313.230	SK	781
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3313.410	SK	774
3313.420	SK	774
3313.430	SK	775
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3313.460	SK	776
3313.470	SK	776
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3319.610	SK	519
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RAL colours

	Colour RAL	Designation
		Rittal Power Pink
	5002	ultramarine blue
	5018	turquoise blue
	7001	silver grey
	7015	slate grey
	7016	anthracite grey
	7022	umbra grey
	7024	graphite grey
	7030	stone grey
	7035	pale grey
	7045	telegrey 1
	9003	signal white
	9005	jet black
	9006	white aluminium
	9007	grey aluminium
	9011	graphite black

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