cosmotec

your cooling solutions

Enclosure Thermal Management

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The history of **cosmotec** began in 1989, in Peschiera del Garda, from the dream of people who strongly believed in their experience in industrial air conditioning and in sharing it with their customers.

Shortly after the production of the first units and the beginning of export worldwide, the need to expand the product range to meet all the Thermal Management needs opened up; this led to the birth of the industrial refrigeration line, a major challenge that saw **cosmotec** competing on an equal footing with important players in the industry, asserting what is its most distinctive trait: working closely with customers, providing products and solutions that can solve their needs.

The approach chosen to meet market demands is lean and effective, a typical example of Italian flexibility, coupled with the solidity represented by the German STULZ group, which **cosmotec** joined in 2001.
With STULZ, the product lines expanded to include telecommunications and new ranges of chillers with increasingly higher capacities.

The speed of product renewal grew dramatically, and to keep up with the needs of the markets, **cosmotec** decided to invest in employee training, production quality and efficiency, product engineering, and, in addition, expanded its production area, with new lines and a state-of-the art Climatic Chamber.

The company's efforts are currently aimed at maintaining the efficiency and flexibility of its product ranges at the highest levels: the "Innovation Center" was created with this goal, in order to allow the development and testing of new technologies that meet the needs of sustainability and efficiency required by today's market.

All the achievements **cosmotec** *has made so far and those to come have been possible thanks to the commitment, ideas and work of the people who make it up and who help make it grow every day*

Paolo Perotti – CEO and **cosmotec** founder

Foundation Year
1989

Employees
300

Worldwide partners
130

Units per year
10.000

Our Values

The key to **cosmotec**'s success lies in its continuous **innovation**, ability and **flexibility** in handling each project, from its conception developed in cooperation with the customer, through to installation, maintenance and service, each time studying specific solutions to the needs of each individual plant and application.

Enthusiasm, the drive to strive for excellence and for new solutions in step with customer demands, attention to **workers' health and safety** and to the **environment,** transparency and acting responsibly: these are the values by which **cosmotec** is inspired by and by which it is guided every day.

Through offering highly specialized services and products in high-tech fields, we contribute to the growth of the company team and our clients.

The Value of People

The company's most valuable resource is undoubtedly its people. They are the strength for the continuous development of activities and the achievement of success.

A highly specialised team, capable of proposing and implementing solutions with the highest technological level for the industrial sector, and able to fulfil the specific requirements of each individual customer, following them through every stage of the project and beyond.

Sustainability and Environmental Responsibility
We strive to reduce the company's environmental footprint and handle product design, development and production in a way that minimises environmental impact throughout its life cycle.

People and Work Ethics
We are committed to empowering people, identifying and developing talents and creating an environment based on trust, respect and personal well-being. We base all our internal and external relationships on transparency and fairness. We work daily to ensure that all employees work under the safest conditions.

Reliability
We conceive, design, develop and propose our solutions and services in such a way as to ensure continuity of service over time.

Innovation
we are committed to introducing new ways of designing, producing and selling goods or services, pursuing the continuous improvement of our offer.

Focus on Customer and Quality
we offer scalable solutions and share our expertise by gathering, intercepting and anticipating customers' implicit or expressed needs and market trends.

Making cooling greener, one step at a time

cosmotec strongly believes in the duty to contribute to decreasing and improve the environmental impacts associated with its activities and products.

In the Company

One of **cosmotec**'s main goals is the continuous improvement of environmental performance, to be achieved both through a reduction in wastage of resources (such as raw materials and energy) and through greater control of environmental costs, related to the treatment (disposal/recovery) of waste. With that in mind, the company has achieved the following certifications:

ISO 14001 (Environmental Management System): ensuring a business model based on sustainability and reducing the environmental impact of products and the entire production process in order to provide customers with a service that meets current environmental standards. All activities that may affect the environment are assessed and controlled in accordance with current regulations.

ISO 50001 (Energy Management System): It aims to improve the company's energy performance, such as reducing energy consumption and related costs; reducing CO2 emissions.

Furthermore, the focus on environmental issues led to the decision to adopt a policy of reducing the use of paper documentation.

Paperless Documentation
our units are accompanied by the instructions for safe use and CE declaration, while the rest of the documentation will be available on Adam, our free App, downloadable on our webiste.

In the Products

To fight climate change and reduce greenhouse gas emissions, specific regulations have been introduced, including Regulation No. 517/2014, which imposes the phase-down of HFCs.

cosmotec has decided to use low GWP (Global Warming Potential) gases, which significantly reduce the carbon footprint and environmental impact of our products.

Improved performance and reduced power consumption for high energy efficiency.

EER (Energy Efficiency Ratio): our air conditioners boast the best values in the business

SEPR (Seasonal Energy Performance Ratio): chillers in the **cosmotec** line comply with the Ecodesign regulation and achieve high SEPR values

Service

The knowledge we have acquired developing industrial air conditioning and refrigeration systems, allows us to offer our customers a complete service, from the design of the systems to the supply of the machines, from the Start Up phase to the ordinary and extraordinary maintenance.

The level of complexity and precision required in today's production processes require a high level of control and reliability. The management of temperatures and heat disposal is one of the critical issues to be addressed, considering the uniqueness of each process and application.

Our technical assistance is also able to guarantee a remote assistance service: **cosmotec**, always attentive to the needs of its customers, has developed and launched on the market a range of technologically advanced controllers that guarantee connectivity wherever you are. And thanks to connectivity, our support team can be at your side in real time, wherever you are, and give you advice and suggestions on how to improve performance, solve any problems and check the operation of your units.

Please visit our dedicated website, www.cosmotecservice.com, to discover our offer and find the contacts of our international service network!

Advice and Planning
Support from the planning phase through to installation and start-up of the system

Positioning and Installation
We guarantee the correct operation of equipment and related systems

Startup
We guarantee perfect commissioning and start-up of the entire system, with customised solutions

Maintenance contracts
A preventive and routine maintenance plan, ensuring constant plant efficiency

Availability
With guaranteed response times

Training
Programme of high-quality training courses with technical content technical content

Remote Assistance
At your side in real time, with the help of augmented reality devices

Spare Parts
Supply of spare parts and repair service both in-house and on site

Selection & Monitoring Softwares

The correct cooling of industrial plants is vital for the operation of companies, as is the ability to monitor, even remotely, that all processes are running smoothly.

In order to be at your side at all times, from planning (Web Select) to monitoring (Adam), we have developed two software packages, which we make available to you free of charge.

Adam
Application for Documentation and Monitoring

Who's Adam?

This is the new app that records your **cosmotec** units and imports them onto your mobile devices. Thanks to Adam you will have access to our entire sales and technical documentation.
It's also possible to organise, monitor and report faults for for all **cosmotec** units equipped with a SEC.blue electronic controller or integrated Ethernet port.

Why using Adam?

So you always have all the information at your fingertips, reducing the time needed for commissioning, maintenance, analysis and troubleshooting.

Downloading Adam

- via smartphone or tablet iOS e Android (Google Play Services requires for geolocalization & OCR): download at **https://app.stulz.it**
- With a PC running Windows (in the versions currently supported by Microsoft on x86-64 architecture) download at **https://app.stulz.it/Adam.msi**

WEB SELECT

Helping you choose

Designing your own air conditioning system for industrial applications can be particularly complex, due to the many variables that need to be considered in the choice. To enable you to start planning independently, we have developed Web Select, a web-based software that will guide you in making the best choice for your application's air conditioning.

Web Select includes the following **cosmotec** ranges:
- Air Conditioners
- Heat Exchangers
- Wall and roof fileter fans

How to use Web Select

To use our software, you do not need to install any software, just go to **www.cosmotec.it/software/cosmotec-web-select/** and follow the instructions. Available for Explorer 10, Chrome, Firefox
Credentials are required for access, which you can obtain free of charge by writing to setup.cva@stulz.it

Products Certifications

In a globalised and competitive market it is essential to provide the correct certification required in each country to which the product is exported.

Having the CE mark is not sufficient for export in USA, Canada and the Eurasian countries. To this end, **cosmotec** products have **specific certifications** which guarantee **high safety and quality standards**, adding brand value and **reducing type-approval and installation costs** along with the time required to enter the market.

CE Certification
certifies that the product meets EU safety requirements

Certification UKCA
a conformity mark that indicates conformity with the applicable requirements for products sold **within Great Britain**

UL Listed Certification
certifies that the product complies with UL requirements and is related to the finished product and complete components, saving time and money on subsequent approvals of the electrical panel

UL Recognized Certification
certifies that the product complies with the requirements of UL, but is related to components that form the basic elements of larger products or systems

UL Listed FTTA Certification
Certification allows products to be installed without any further assessment regarding the Type protection approval process

CSA Certification
The Canadian Standard Association is the Canadian counterpart of the US body UL. It acts as a certification body for the compliance of safety components with Canadian standards

	Declaration of Conformity EU + UKCA	Certificate of Compliance UL	Certificate of Compliance UL	Certificate of Compliance UL FTTA	Certificate of Compliance CSA
Protherm CVE/CVO	✓	✓			
Compact Protherm CNE/CNO	✓	✓			
SlimIn CDE	✓	✓			
FlexIn CDI	✓	✓			
Top ETE	✓		✓		
Smart EVE	✓				
Module EVE	✓				
Watherm CNW	✓	✓			
Rooftherm EXW	✓				
Aertherm XVA	✓	✓			
Kryos3 GS	✓		✓	✓	✓
KryosROOF TS	✓		✓	✓	

Industrial air conditioners for electrical panels

Why cool an electrical panel?

The cooling of electrical panels or cabinets is essential in any application to ensure the proper functioning of internal components and production processes, **preventing and avoiding production and/or distribution downtime**.

cosmotec products offer protection against:

- the formation of high temperature and high humidity and consequently overheating and condensation
- the infiltration of dust and/or sand, corrosive agents, etc.

to prevent component wear, derating and failure, thus ensuring reliability, safety and efficiency.

When cool an electrical panel?

Air conditioners for electrical cabinets exploit the principle of a refrigerated circuit using R134a (HFC) refrigerant gas, guarantee precise temperature control and offer simple installation on the electrical panel. Air conditioners are mainly recommended if:

- the outside air has a higher temperature value than the inside air
- the ambient air is extremely oily or dusty
- outside air and humidity must not enter the electrical cabinet
- no hydraulic circuit is to be provided

Main factors influencing the choice of air conditioning type

The choice of air conditioning solution is mainly determined by the following factors:

- **application:** Indoor, cabinet positioned inside a building, or Outdoor, cabinet positioned in an outdoor environment
- **air quality:** presence of humidity, dust, oils
- **reference temperatures:** internal (Ti) and external (Te) and the ratio between them (Ti>Te, Ti<Te)
- **presence of chilled water**

Protherm

Wall mounted air conditioner
Application: Indoor (CVE) Outdoor (CVO)
External /semi-flush (CVE07-15-500S) mounting

pag. 16

Compact Protherm

Wall mounted air conditioner
Application: Indoor (CNE) Outdoor (CNO)
External mounting on cabinets with reduced depth

pag. 28

SlimIn

Wall mounted air conditioner
Application: Indoor
Flush, semi-flush, external mounting
For the conditioning of electrical panels where space is at a premium

pag. 32

FlexIn

Inverter air conditioner
Application: Indoor
Flush, semi-flush, external mounting
Higher efficiency and high savings

pag. 38

TOP

Roof air conditioner
Application: Indoor
Roof mounting

pag. 41

Module

Wall mounted air conditioner
Application: Indoor
External mounting
For the cooling of modular enclosures with high thermal loads

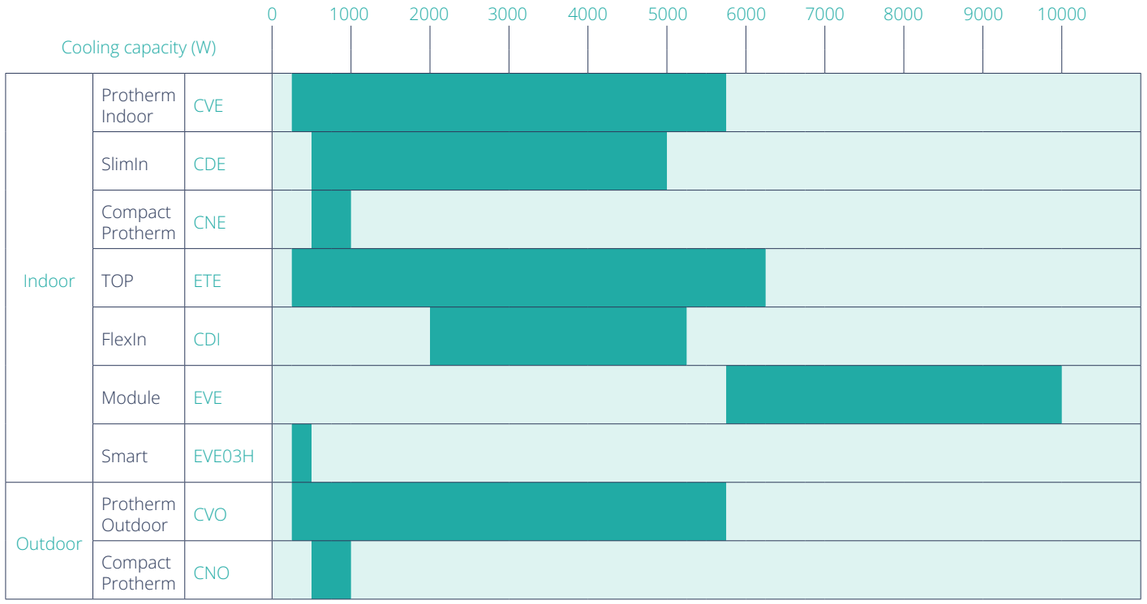
pag. 47

Smart

Wall mounted air conditioner
Application: Indoor
External mounting
Air conditioners for horizontal wall mounting

pag. 48

Overview Air Conditioners Coolig Capacity



Overview Air Conditioners Controllers

Condensate Evaporator

Device without any power consumption for the elimination or reduction of condensation produced by the air conditioner. Operating principle: Condensate falls inside a container into which the compressor's hot tube is passed, evaporating the liquid. The vapour formed is transferred to the outside environment through the air flow of the condenser fan.

Legend: Present Not available

Mechanical Thermostat
gas-charged. It has a bulb positioned at the entry point of the air intake from the cabinet and detects and controls the temperature, giving consent to the devices connected to it.

Electric Thermostat
microprocessor electronic controller for the management of the cooling function. Displays the operating statuses and any alarms and gives the possibility of modifying the user parameters.
Presence of an alarm contact and remote control/open door

Electronic board XCB
installed in the internal compartment, offers adequate protection against external agents (dust, oils) in the environment.
Mode of operation: direct expansion cooling and heating, for units equipped with electrical resistance

- Display of operating statuses and alarms and possibility of changing user parameters
- Presence of a changeover alarm contact (NO and NC) and a remote control/open door
- Test mode function for quick and easy component start-up and verification
- SEM and SEM2 functions for reducing power consumption by managing the evaporator fan
- Management of the condenser fan if the application requires low noise values
- Possibility of system redundancy via sequencing function and communication between two conditioners
- Elimination of hot spots with the possibility of installing a remote probe
- Remote communication via built-in RS485 serial port and Modbus RTU protocol

Electronic board C100/C110
installed in the internal compartment, offers adequate protection against external agents (dust, oil) in the environment

- Modes of operation: direct expansion cooling, Free Cooling, via modulation of the damper integrated in the air conditioner, emergency ventilation when the main power supply is not operating (if present), heating, for units equipped with an electric heater.
- Display of operating statuses and alarms and possibility of changing user parameters
- Signals: two alarm contacts, classified as warning and general, and two digital inputs to send remote or smoke-fire signals via external devices.
- Regulation: variable compressor speed 48Vdc (PRT20), condenser fan speed in relation to outside temperature in relation to the external operating temperature

Inverter Electronic Board
installed in the interior compartment, it offers adequate protection against external agents (dust, oils) in the environment

- Mode of operation: direct expansion cooling with continuous variation of the cooling capacity according to the actual heat load and optimising operation under all operating conditions.
- Display of operating statuses and alarms and possibility of changing user parameters
- Presence of a switch alarm contact (NO and NC) and a remote control/open door
- Test mode function for quick and easy component start-up and verification
- Intake or outlet internal temperature reading
- Elimination of hot spots with the possibility of installing a remote probe
- Temperature control with 0.2°C accuracy under stable load conditions
- Possibility of system redundancy via sequencing function and communication between three conditioners
- Remote communication via built-in Ethernet port and HTTP, SNMP, and TCP-IP protocols

Protherm R513A

Indoor & Outdoor

Target: Savings and Efficiency

The increasing need to reduce consumption has forced the development of industrial air conditioning systems strongly oriented to **maximum efficiency**, while maintaining **robustness**, **reliability** and **compactness**, all characteristics that can be found in Protherm air conditioners.

Protherm offer a wide range of air conditioners to meet different customer requirements, both for cooling of electrical panels for **industrial applications** (CVE) and for the air conditioning of shelters/cabinets for **telecommunications, power distribution, etc** (CVO).

The CVE air conditioners, **for indoor applications**, are characterised by a display installed on the panel for the visualisation of information (except CVE03) and by the condensate dissipator (from CVE11 and CVE07).

The CVO air conditioners, suitable for outdoor applications, are able to operate at **low external temperatures**, even below -20°C; moreover the display is supplied as an accessory, in order to avoid vandalism or modifications, and can be integrated with an electric resistance for the heating function, when necessary (from CVO11).

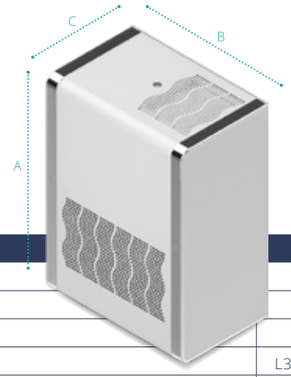
Energy efficiency at the core

SEM (Smart Energy Management) and SEM2 logics provide **energy savings of up to 23%**, combined with an increase in the cooling power of the air conditioner. Thanks to the micro-channel coil of the Protherm air conditioners, which is thinner than traditional coils, there is a **significant reduction in pressure drops** and a greater air flow rate on the condenser, with a consequent reduction in power consumptioni. Furthermore, thanks to the management of the evaporator fan by the XCB electronic control, it is possible to achieve a **significant reduction in power consumption**.

Main Features

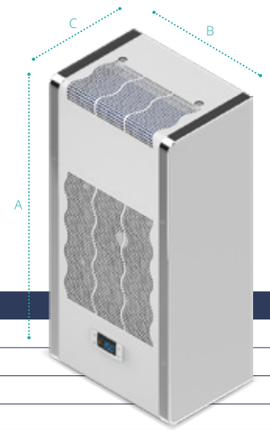
- Cooling Capacity : 360-5600 W CVE / 500-4000W CVO
- CVE (07/15/25)00S semi-flush mounting option
- Electronic Board XCB + display (except CVE03 - display as accessory on CVO)
- Certifications: CE, UL Listed
- Sequencing and Modbus (with specific Accessorieses)
- Condensate dissipator available starting from CVE11 and on CVE0700S
- Quick connections (CE version, except CVE03)
- µchannel condenser (from CVE/CVO11 + CVE0700S)
- General alarm and remote control contacts (except CVE03)
- NEMA 4/4x protection degree for CVO UL units
- Operation down to -40°C ambient temperature for CVO UL Listed units
- Protective treatment on the condenser, standard for CVO UL Listed units

R513A



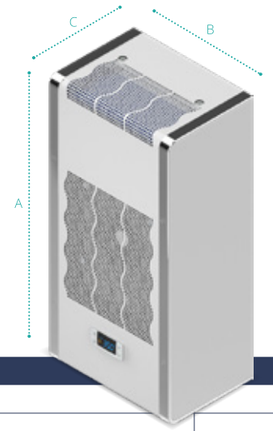
CVE03

CODE		M.U.	CVE030022000000		CVE03U120300000		CVE03U122000000	
UL LISTED			--		✓		✓	
Rated Voltage		V , ~	230,1		115,1		230,1	
Nominal Frequency		Hz	50	60	60		50	60
Cooling Capacity	L35L35	W	310	360	310		310	360
Cooling Capacity	L35L50	W	255	260	280		240	250
Max Power Consumption		W	250	280	280		250	280
Internal operating temp..	min/max	°C	25/45		25/35		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54	
		Type	--		12		12	
External sound pressure		dB(A)	54		54		54	
Height (A)		mm	443		443		443	
Wirdth (B)		mm	324,5		324,5		324,5	
Depth (C - C1 - C2)		mm	206		206		206	
Weight		kg	19		18		19	



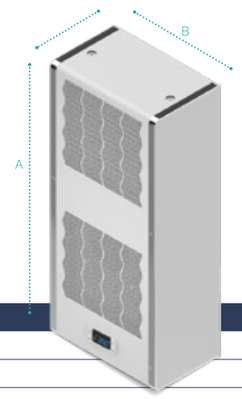
CVE05

CODE		M.U.	CVE050022080000		CVE050022880000		CVE05U12208000	
UL LISTED			--		--		✓	
Rated Voltage		V , ~	230,1		400,2	460,2	230,1	
Nominal Frequency		Hz	50	60	50	60	50	60
Cooling Capacity	L35L35	W	525	530	475	500	525	530
Cooling Capacity	L35L50	W	335	360	310	340	335	360
Max Power Consumption		W	280	310	280	310	280	310
Internal operating temp..	min/max	°C	25/45		25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54	
		Type	--		--		12	
External sound pressure		dB(A)	56		56		56	
Height (A)		mm	642		642		642	
Wirdth (B)		mm	314,5		314,5		314,5	
Depth (C - C1 - C2)		mm	221		221		221	
Weight		kg	23		26		23	



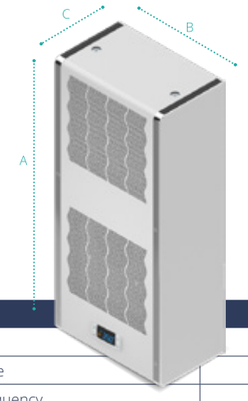
CVE08

CODE		M.U.	CVE080022080000		CVE080022880000		CVE08U120380000	CVE08U122080000	
UL LISTED			--		--		✓	✓	
Rated Voltage		V , ~	230,1		400,2	460,2	115,1	230,1	
Nominal Frequency		Hz	50	60	50	60	60	50	60
Cooling Capacity	L35L35	W	800	850	750	800	850	800	850
Cooling Capacity	L35L50	W	510	560	460	510	--	510	560
Max Power Consumption		W	540	650	540	650	540	540	650
Internal operating temp..	min/max	°C	25/45		25/45		25/40	25/45	
External operating temp.	min/max	°C	20/55		20/55		20/45	20/55	
Protection Degree internal circuit		IP	54		54		54	54	
		Type	--		--		12	12	
External sound pressure		dB(A)	58		58		58	58	
Height (A)		mm	642		642		642	642	
Wirdth (B)		mm	314,5		314,5		314,5	314,5	
Depth (C - C1 - C2)		mm	221		221		221	221	
Weight		kg	26		28		24	26	



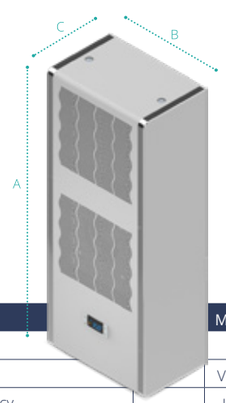
CVE11

CODE		M.U.	CVE110022080000		CVE110022880000		CVE11U122080000	
UL LISTED			--		--		--	
Rated Voltage		V , ~	230,1		400,2	460,2	230,1	
Nominal Frequency		Hz	50	60	50	60	50	60
Cooling Capacity	L35L35	W	1000	1100	950	1050	1000	1100
Cooling Capacity	L35L50	W	775	800	725	750	775	800
Max Power Consumption		W	640	810	640	810	640	810
Internal operating temp..	min/max	°C	25/45		25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54	
		Type	--		--		12	
External sound pressure		dB(A)	66		66		66	
Height (A)		mm	913		913		913	
Wirdth (B)		mm	413		413		413	
Depth (C - C1 - C2)		mm	248		248		248	
Weight		kg	39		40		39	



CVE15

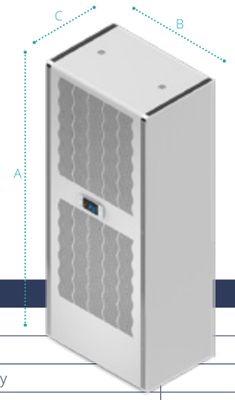
CODE		M.U.	CVE150022080000		CVE150022880000		CVE15U122080000		CVE15U126280000	
UL LISTED			--		--		✓		✓	
Rated Voltage		V , ~	230,1		400,2	460,2	230,1		400,3	460,3
Nominal Frequency		Hz	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	1500	1550	1400	1450	1500	1550	1450	1500
Cooling Capacity	L35L50	W	1050	1100	1000	1050	1050	1100	1050	1100
Max Power Consumption		W	810	880	810	880	810	880	800	920
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54		54	
		Type	--		--		12		12	
External sound pressure		dB(A)	66		66		66		66	
Height (A)		mm	913		913		913		1005	
Wirdth (B)		mm	413		413		413		413	
Depth (C - C1 - C2)		mm	248		248		248		263	
Weight		kg	41		47		41		47	



CVE20

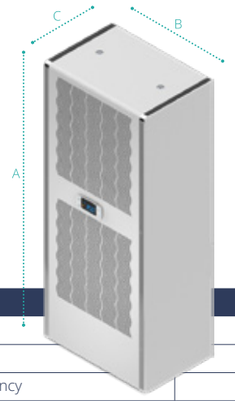
CODE		M.U.	CVE200022080000		CVE200026180000		CVE20U120380000_45	CVE20U122080000		CVE20U126280000	
UL LISTED			--		--		✓	✓		✓	
Rated Voltage		V , ~	230,1		400,3	460,3	115,1	230,1		400,3	460,3
Nominal Frequency		Hz	50	60	50	60	60	50	60	50	60
Cooling Capacity	L35L35	W	2000	2050	1950	2000	1900	2000	2050	1950	2000
Cooling Capacity	L35L50	W	1500	1550	1500	1550	1350	1500	1550	1500	1550
Max Power Consumption		W	1190	1380	1060	1210	1450	1190	1380	1060	1210
Internal operating temp..	min/max	°C	25/45		25/45		25/45	25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55	20/55		20/55	
Protection Degree internal circuit		IP	54		54		54	54		54	
		Type	--		--		12	12		12	
External sound pressure		dB(A)	66		66		66	66		66	
Height (A)		mm	1005		1005		1005	1005		1005	
Wirdth (B)		mm	413		413		413	413		413	
Depth (C - C1 - C2)		mm	263		263		263	263		263	
Weight		kg	46		48		47	46		48	

CVE30



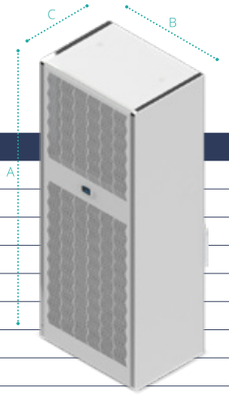
CODE		M.U.	CVE300022080000		CVE300026180000		CVE30U122080000		CVE30U126280000	
UL LISTED			--		--		✓		✓	
Rated Voltage		V , ~	230,1		400,3	460,3	230,1		400,3	460,3
Nominal Frequency		Hz	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	3200	3500	3100	3400	3200	3500	3100	3400
Cooling Capacity	L35L50	W	2500	2700	2400	2600	2500	2700	2400	2600
Max Power Consumption		W	1410	1720	1450	1740	1410	1720	1450	1740
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54		54	
		Type	--		--		12		12	
External sound pressure		dB(A)	70		70		70		70	
Height (A)		mm	1219		1219		1219		1219	
Wirdth (B)		mm	514		514		514		514	
Depth (C - C1 - C2)		mm	347		347		347		347	
Weight		kg	65		69		65		69	

CVE40



CODE		M.U.	CVE400022080000		CVE400026180000		CVE40U122080000		CVE40U126280000	
UL LISTED			--		--		✓		✓	
Rated Voltage		V , ~	230,1		400,3	460,3	230,1		400,3	460,3
Nominal Frequency		Hz	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	3900	4000	3900	4000	3950	4050	3950	4050
Cooling Capacity	L35L50	W	2900	3200	2900	3200	2950	3250	2950	3250
Max Power Consumption		W	1500	1820	1510	1780	1500	1820	1510	1780
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54		54	
		Type	--		--		12		12	
External sound pressure		dB(A)	64		64		64		64	
Height (A)		mm	1219		1219		1219		1219	
Wirdth (B)		mm	514		514		514		514	
Depth (C - C1 - C2)		mm	347		347		347		347	
Weight		kg	78		81		78		81	

CVE60



CODE			M.U.	CVE600026180000		CVE60U126280000	
UL LISTED				--		✓	
Rated Voltage			V , ~	400,3	460,3	400,3	460,3
Nominal Frequency			Hz	50		50	60
Cooling Capacity		L35L35	W	5800	6500	5800	6500
Cooling Capacity		L35L50	W	4800	5500	4800	5500
Max Power Consumption			W	2900	3450	2900	3450
Internal operating temp..		min/max	°C	25/45		25/45	
External operating temp.		min/max	°C	20/55		20/55	
Protection Degree internal circuit			IP	54		54	
			Type	--		12	
External sound pressure			dB(A)	???		???	
Height (A)			mm	1406		1406	
Wirdth (B)			mm	556		556	
Depth (C - C1 - C2)			mm	403		403	
Weight			kg	110		110	

Optional Protherm Indoor CVE

CODE	Special Colour	Stainless Steel AISI304 Housing	Stainless Steel AISI316 Housing	LN Version (only for 230 V units)	Control Phase Module (only for ~3 units)	Condenser Protective Treatment
CVE03	OCASC03	OCAINI0403	OCAINI1603	--	--	--
CVE05	OCASC05	OCAINI0405	OCAINI1605	OCALN05	--	OCATC05
CVE08	OCASC05	OCAINI0405	OCAINI1605	OCALN08	--	OCATC05
CVE11	OCASC05	OCAINI0411	OCAINI1611	OCALN08	--	OCATC11
CVE15	OCASC05	OCAINI0411	OCAINI1611	OCALN08	OCACFM	OCATC11
CVE20	OCASC05	OCAINI0411	OCAINI1611	OCALN20	OCACFM	OCATC11
CVE30	OCASC30	OCAINI0430	OCAINI1630	OCALN20	OCACFM	--
CVE40	OCASC30	OCAINI0430	OCAINI1630	OCALN40	OCACFM	OCATC40
CVE60	OCASC60	OCAINI0460	OCAINI1660	OCALN60	OCACFM	OCATC40

Accessories Protherm Indoor CVE

CODE	Air filter (only for painted version)	Baffle	Semi-flush Mounting Frame	Flush Mounting Frame	IP55 Gasket (only for CE units)	Sequencing Cable	Modbus Serial Port	SE^2 Remote Probe
CVE03	--	ACABAF03	--	--	ACAG03	--	--	--
CVE05	ACAFLTI05	ACABAF05	ACASEF05	ACATEF05	ACAG03	ACASEQ	ACASPM	ACARES
CVE08	ACAFLTI05	ACABAF05	ACASEF05	ACATEF05	ACAG03	ACASEQ	ACASPM	ACARES
CVE11	ACAFLTI11	ACABAF11	ACASEF11	ACATEF11	ACAG11	ACASEQ	ACASPM	ACARES
CVE15	ACAFLTI11	ACABAF11	ACASEF11/20 (1)	ACATEF11/20 (1)	ACAG11	ACASEQ	ACASPM	ACARES
CVE20	ACAFLTI11	ACABAF11	ACASEF20	ACATEF20	ACAG11	ACASEQ	ACASPM	ACARES
CVE30	ACAFLTI30	ACABAF30	ACASEF30	ACATEF30	ACAG11	ACASEQ	ACASPM	ACARES
CVE40	ACAFLTI30	ACABAF30	ACASEF30	ACATEF30	ACAG11	ACASEQ	ACASPM	ACARES
CVE60	ACAFLTI60	ACABAF60	--	--	ACAG11	ACASEQ	ACASPM	ACARES

(1) Check the model (2) Only for external mounting

Accessories Optionals Protherm Indoor CVE

Air Filter CODE	Special Colour
ACAFLTI05	OCASCFLTI05
ACAFLTI11	OCASCFLTI05
ACAFLTI30	OCASCFLTI30
ACAFLTI60	OCASCFLTI60

Semi-flush Mounting Frame CODE	Special Colour
ACASEF05	OCASCSEF05
ACASEF11	OCASCSEF05
ACASEF20	OCASCSEF05
ACASEF30	OCASCSEF30

Flush Mounting Frame CODE	Special Colour
ACATEF05	OCASCTEF05
ACATEF11	OCASCTEF05
ACATEF20	OCASCTEF05
ACATEF30	OCASCTEF30

CVO05

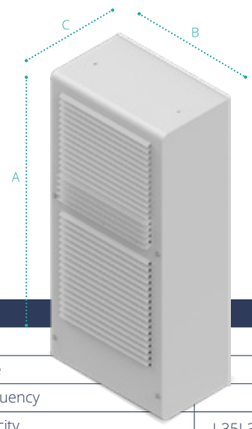
CODE		M.U.	CVO050022080000		CVO050022880000		CVO05U1220800A0	
UL LISTED			--		--		✓	
Rated Voltage		V , ~	230,1		400,2	460,2	230,1	
Nominal Frequency		Hz	50	60	50	60	50	60
Cooling Capacity	L35L35	W	525	530	475	500	525	530
Cooling Capacity	L35L50	W	335	360	310	340	335	360
Max Power Consumption		W	280	310	280	310	280	310
Internal operating temp..	min/max	°C	25/45		25/45		25/45	
External operating temp.	min/max	°C	-20/+55		-20/+55		-40/+55	
Protection Degree internal circuit		IP	54		54		55	
		Type	--		--		4	
External sound pressure		dB(A)	59		59		59	
Height (A)		mm	636		636		636	
Wirdth (B)		mm	314,5		314,5		314,5	
Depth (C - C1 - C2)		mm	233		233		233	
Weight		kg	23		26		23	

CVO08

CODE		M.U.	CVO080022080000		CVO080022880000		CVO08U1203800A0	CVO08U1220800A0	
UL LISTED			--		--		✓	✓	
Rated Voltage		V , ~	230,1		400,2	460,2	115,1	230,1	
Nominal Frequency		Hz	50	60	50	60	60	50	60
Cooling Capacity	L35L35	W	800	850	750	800	850	800	850
Cooling Capacity	L35L50	W	510	560	460	510	--	510	560
Max Power Consumption		W	540	650	540	650	540	540	650
Internal operating temp..	min/max	°C	25/45		25/45		25/40	25/45	
External operating temp.	min/max	°C	-20/+55		-20/+55		-40/+45	-40/+55	
Protection Degree internal circuit		IP	54		54		55	55	
		Type	--		--		4	4	
External sound pressure		dB(A)	60		60		60	60	
Height (A)		mm	636		636		636	636	
Wirdth (B)		mm	314,5		314,5		314,5	314,5	
Depth (C - C1 - C2)		mm	233		233		233	233	
Weight		kg	27		30		26	27	

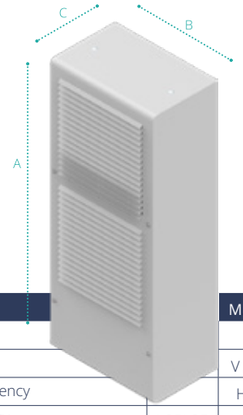
CVO11

CODE		M.U.	CVO110022080000		CVO110022880000		CVO11U1220800A0	
UL LISTED			--		--		✓	
Rated Voltage		V , ~	230,1		400,2	460,2	230,1	
Nominal Frequency		Hz	50	60	50	60	50	60
Cooling Capacity	L35L35	W	1000	1100	950	1050	1000	1100
Cooling Capacity	L35L50	W	775	800	725	750	775	800
Max Power Consumption		W	640	810	640	810	640	810
Internal operating temp..	min/max	°C	25/45		25/45		25/45	
External operating temp.	min/max	°C	-20/+55		-20/+55		-40/+55	
Protection Degree internal circuit		IP	54		54		55	
		Type	--		--		4	
External sound pressure		dB(A)	60		60		60	
Height (A)		mm	906		906		906	
Wirdth (B)		mm	412,5		412,5		412,5	
Depth (C - C1 - C2)		mm	271,5		271,5		271,5	
Weight		kg	40		43		40	



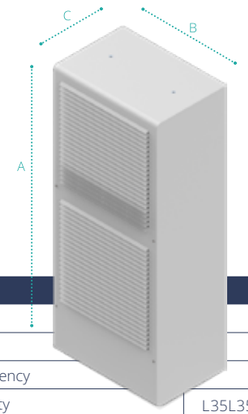
CVO15

CODE		M.U.	CVO150022080000		CVO150022880000		CVO15U1262800A0		CVO15U1220800A0	
UL LISTED			--		--		✓		✓	
Rated Voltage		V , ~	230,1		400,2	460,2	400,3	460,3	230,1	
Nominal Frequency		Hz	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	1500	1550	1400	1450	1450	1500	1500	1550
Cooling Capacity	L35L50	W	1050	1100	1000	1050	1050	1100	1050	1100
Max Power Consumption		W	810	880	810	880	800	920	810	880
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	-20/+55		-20/+55		-40/+55		-40/+55	
Protection Degree internal circuit		IP	54		54		55		55	
		Type	--		--		4		4	
External sound pressure		dB(A)	60		60		60		60	
Height (A)		mm	906		906		999		906	
Wirdth (B)		mm	412,5		412,5		412,5		412,5	
Depth (C - C1 - C2)		mm	271,5		271,5		286		271,5	
Weight		kg	41		48		48		41	



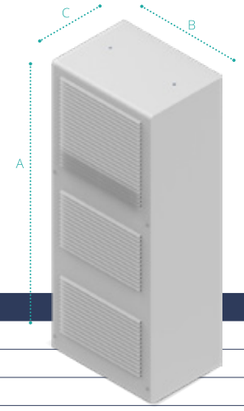
CVO20

CODE		M.U.	CVO200022080000		CVO200026180000		CVO20U1220800A0		CVO20U1262800A0		CVO20U1203800A0	
UL LISTED			--		--		✓		✓		✓	
Rated Voltage		V , ~	230,1		400,3	460,3	230,1		400,3	460,3	115,1	
Nominal Frequency		Hz	50	60	50	60	50	60	50	60	60	
Cooling Capacity	L35L35	W	2000	2050	1950	2000	1900		2000	2050	1900	
Cooling Capacity	L35L50	W	1500	1550	1500	1550	1350		1500	1550	1350	
Max Power Consumption		W	1190	1380	1060	1210	1450		1190	1380	1060	1210
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	-20/+55		-20/+55		-40/+55		-40/+55		-40/+55	
Protection Degree internal circuit		IP	54		54		55		55		55	
		Type	--		--		4		4		4	
External sound pressure		dB(A)	69		69		69		69		69	
Height (A)		mm	999		999		999		999		999	
Wirdth (B)		mm	412,5		412,5		412,5		412,5		412,5	
Depth (C - C1 - C2)		mm	286		286		286		286		286	
Weight		kg	48		48		48		48		48	



CVO40

CODE		M.U.	CVO400022080000		CVO400026180000		CVO40U1220800A0		CVO40U1262800A0	
UL LISTED			--		--		✓		✓	
Rated Voltage		V , ~	230,1		400,3	460,3	230,1		400,3	460,3
Nominal Frequency		Hz	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	3900	4000	3950	4050	3900	4000	3950	4050
Cooling Capacity	L35L50	W	2900	3200	2950	3250	2900	3200	2950	3250
Max Power Consumption		W	1500	1820	1500	1820	1510	1780	1510	1780
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	-20/+55		-20/+55		-40/+55		-40/+55	
Protection Degree internal circuit		IP	54		54		55		55	
		Type	--		--		4		4	
External sound pressure		dB(A)	66		66		66		66	
Height (A)		mm	1211		1211		1211		1211	
Wirdth (B)		mm	514		514		514		514	
Depth (C - C1 - C2)		mm	370		370		370		370	
Weight		kg	82		85		82		85	



CVO60

CODE		M.U.	CVO600026180000		CVO60U1262800A0	
UL LISTED			--		✓	
Rated Voltage		V , ~	400,3	460,3	400,3	460,3
Nominal Frequency		Hz	50	60	50	60
Cooling Capacity	L35L35	W	5800	6500	5800	6500
Cooling Capacity	L35L50	W	4800	5500	4800	5500
Max Power Consumption		W	2900	3450	2900	3450
Internal operating temp..	min/max	°C	25/45		25/45	
External operating temp.	min/max	°C	-20/+55		-40/+55	
Protection Degree internal circuit		IP	54		55	
		Type	--		4	
External sound pressure		dB(A)	71		71	
Height (A)		mm	1399		1399	
Wirdth (B)		mm	556		556	
Depth (C - C1 - C2)		mm	428		428	
Weight		kg	110		110	

Optional Protherm Outdoor CVO

CODE	Special Colour (only for CE units)	Stainless Steel AISI304 Housing	Stainless Steel AISI316 Housing	LN Version (only for 230V units)	Control Phase Module (only for three-phase units)	Condenser Protective Treatment	Electrical Heating (only for 230V units)
CVO05	OCASC05	OCAINO0405	OCAINO1605	OCALN05	--	OCATC05 (1)	--
CVO08	OCASC05	OCAINO0405	OCAINO1605	OCALN08	--	OCATC05 (1)	--
CVO11	OCASC05	OCAINO0411	OCAINO1611	OCALN08	--	OCATC11 (1)	RSC1
CVO15	OCASC05	OCAINO0411	OCAINO1611	OCALN08	OCACFM	OCATC11 (1)	RSC1
CVO20	OCASC05	OCAINO0411	OCAINO1611	OCALN20	OCACFM	OCATC11 (1)	RSC1
CVO40	OCASC30	OCAINO0430	OCAINO1630	OCALN40	OCACFM	OCATC40 (1)	RSC1-RSC3
CVO60	OCASC60	OCAINO0460	OCAINO1660	OCALN60	OCACFM	OCATC40 (1)	--

(1) Standard on UL Listed units

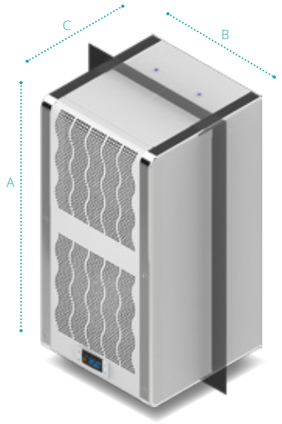
Accessories Protherm Outdoor CVO

CODE	Filter	Keypad	Semi-flush Mounting Frame	Flush Mounting Frame	IP55 Gasket (only for CE units)	Sequencing Cable	Modbus Serial Port	SE² Remote Probe
CVO05	ACAFLTO05	ACAKPD	ACASEF05	ACATEF05	ACAG03	ACASEQ	ACASPM	ACARES
CVO08	ACAFLTO05	ACAKPD	ACASEF05	ACATEF05	ACAG03	ACASEQ	ACASPM	ACARES
CVO11	ACAFLTO11	ACAKPD	ACASEF11	ACATEF11	ACAG11	ACASEQ	ACASPM	ACARES
CVO15	ACAFLTO11	ACAKPD	ACASEF11/20 (1)	ACATEF11/20 (1)	ACAG11	ACASEQ	ACASPM	ACARES
CVO20	ACAFLTO11	ACAKPD	ACASEF20	ACATEF20	ACAG11	ACASEQ	ACASPM	ACARES
CVO40	ACAFLTO30	ACAKPD	ACASEF30	ACATEF30	ACAG11	ACASEQ	ACASPM	ACARES
CVO60	ACAFLTO60	ACAKPD	--	--	ACAG11	ACASEQ	ACASPM	ACARES

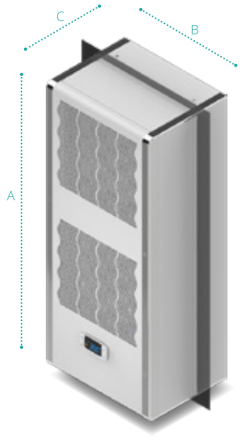
(1) Check the model

PROTHERM CVE/CVO WITH REFRIGERANT GAS R134a

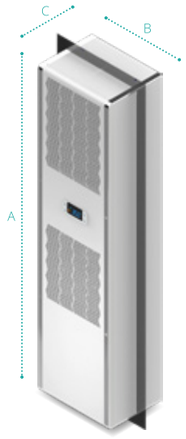
CVE07S



CVE15S



CVE25S



CODE		M.U.	CVE0700S208000		CVE1500S208000		CVE1500S618000		CVE2500S208000		CVE2500S618000	
UL Listed			--		--		--		--		--	
Rated Voltage		V , ~	230 , 1		230 , 1		400 , 3	460 , 3	230 , 1		400 , 3	460 , 3
Nominal Frequency		Hz	50	60	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	800	850	1400	1500	1400	1500	2550	2750	2400	2600
Cooling Capacity	L35L50	W	540	580	1100	1200	1150	1200	2000	2200	1900	2100
Power Consumption	L35L50	W	450	490	700	890	700	830	1050	1300	1050	1290
Current Compsuntion	CE, L35L35	A	1,9	2	4	4,6	1,5	1,4	3,9	5	1,8	2,1
	UL, L45L55	A	--		--		--		--		--	
Start.-up Current	CE	A	9,6		28		31		36		31	
Internal operating temperatures	min/max	°C	+25 / +45		+25 / +45		+25 / +45		+25 / +45		+25 / +45	
External operating temperatures	min/max	°C	+20 / +55		+20 / +55		+20 / +55		+20 / +55		+20 / +55	
Internal Circuit Protection Degree	CE	IP	54		54		54		54		54	
	UL	Type	--		--		--		--		--	
External Sound Pressure		dB(A)	58		65		65		69		69	
Height (A)		mm	550		950		950		1580		1580	
Width (B)		mm	279		400		400		400		400	
Depth (C)		mm	286		304		304		305		305	
Weight		kg	20		47		47		65		68	

Compact Protherm R513A

Indoor & Outdoor

Compact Protherm is the range of industrial air conditioners designed for installations where units with **small overall dimensions** in terms of width or height are required. The technical solutions available distinguish these compact air conditioners for electrical panels for **flexibility, reliability and efficiency**.

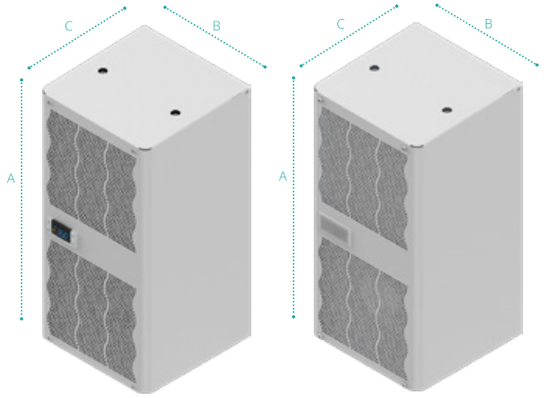
In industrial automation, production space is an increasingly valuable asset and there is a need to find solutions that combine **high performance** with **optimised layouts**. However, the optimisation of the space also generates a greater density of electronic control components, worsening the thermal conditions of the system, which must be protected even more carefully against overheating in order to guarantee **continuity of service**. **Compact Protherm**, an evolution of our bestseller, offers a Thermal Management solution suitable for placement on the side of all electrical cabinets **up to 300mm deep**, thanks to a **width of only 280mm**. In addition, the range also features a low height of 565mm, allowing it to be installed in electrical boxes integrated into machine tools.

This new range of air conditioners responds to the needs of sectors where attention to hygiene is essential, such as the Food & Beverage. The main features that make **Compact Protherm** perfect for this kind of application are: **possibility of stainless steel coating, high IP55/Type4/4x protection degree**, dedicated **layout and some** and a few Accessorieses available, such as the **roof inclined at 30°**, which avoid the deposit of dust and liquids on the roof, meeting the requirements of hygiene and safety.

Main Features

- Application Indoor (CNE) and Outdoor (CNO)
- Compact dimensions - Two sizes , one cut-out
- Cooling Capacity: 400W...1000W
- High Efficiency
- Wide power supply range
- Certifications: CE, UL
- Protection Degree: IP54/55, Type12/4-4x
- Electronic Board (+display)
- Condensate Dissipatore (Indoor Version)
- Low noise
- Quick electric connections

R513A

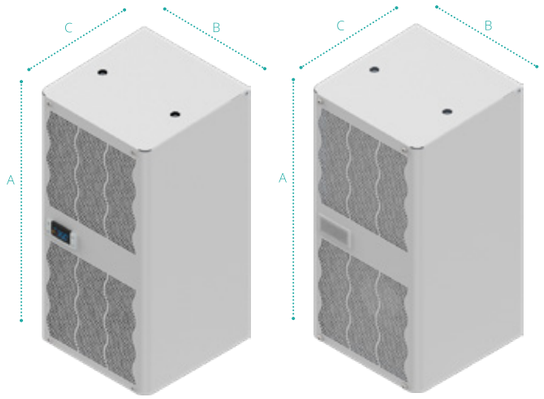


CNE/CNO 04-07-10

CODE		M.U.	CNE04U122080000 CNO04U122080000		CNE04U122880000 CNO04U122880000		CNE04U120380000 CNO04U120380000	CNE07U122080000 CNO07U122080000		CNE07U122880000 CNO07U122880000	
UL LISTED			✓		✓		✓	✓		✓	
Rated Voltage		V , ~	230.1		400.2	460.2	115.1	230.1		400.2	460.2
Nominal Frequency		Hz	50	60	50	60	60	50	60	50	60
Cooling Capacity	L35L35	W	450	500	445	495	490	665	685	650	670
Cooling Capacity	L35L50	W	320	350	315	345	305	450	490	440	480
Power Consumption	L35L50	W	210	225	210	225	315	355	410	355	410
Max current consumption.		A	230	250	230	250	320	390	470	390	470
Start-up current		A	4,6		2,6		5,4	7		4,5	
Internal operating temp..	min/max	°C	+20/+45		+20/+45		+20/+40	+20/+45		+20/+45	
External operating temp.	min/max	°C	+20/+55 (CNE) -20 /+55 (CNO)		+20/+55 (CNE) -20 /+55 (CNO)		+20/+50 (CNE) -20 / +50 (CNO)	+20/+50 (CNE) -20 / +50 (CNO)		+20/+55 (CNE) -20 / +55 (CNO)	
Protection Degree internal circuit		IP	54 (CNE) 55 (CNO)		54 (CNE) 55 (CNO)		54 (CNE) 55 (CNO)	54 (CNE) 55 (CNO)		54 (CNE) 55 (CNO)	
		Type	12 (CNE) 4 (CNO)		12 (CNE) 4 (CNO)		12 (CNE) 4 (CNO)	12 (CNE) 4 (CNO)		12 (CNE) 4 (CNO)	
External sound pressure		dB(A)	55		55		55	55		55	
Height (A)		mm	565		565		565	565		565	
Wirdth (B)		mm	280		280		280	280		280	
Depth (C)		mm	220		278		220	220		278	
Weight		kg	17		21		17	18		22	

CODE		M.U.	CNE07U120380000 CNO07U120380000	CNE10U122080000 CNO10U122080000		CNE10U122880000 CNO10U122880000		CNE10U120380000 CNO10U120380000
UL LISTED			✓	✓		✓		✓
Rated Voltage		V , ~	115.5	230.1		400.2	460.2	115.1
Nominal Frequency		Hz	60	50	60	50	60	60
Cooling Capacity	L35L35	W	630	1000	1075	975	1050	1000
Cooling Capacity	L35L50	W	425	720	790	710	780	700
Power Consumption	L35L50	W	340	465	510	465	510	555
Max Power consumption.		W	350	510	580	510	580	580
Start-up current		A	9,4	46		4,5		19,4
Internal operating temp..	min/max	°C	+20/+45	+20/+45		+20/+45		+20/+45
External operating temp.	min/max	°C	+20/+50 (CNE) -20 /+50 (CNO)	+20/+55 (CNE) -20 /+55 (CNO)		+20/+55 (CNE) -20 /+55 (CNO)		+20/+50 (CNE) -20 /+50 (CNO)
Protection Degree internal circuit		IP	54 (CNE) 55 (CNO)	54 (CNE) 55 (CNO)		54 (CNE) 55 (CNO)		54 (CNE) 55 (CNO)
		Type	12 (CNE) 4 (CNO)	12 (CNE) 4 (CNO)		12 (CNE) 4 (CNO)		12 (CNE) 4 (CNO)
External sound pressure		dB(A)	55	55		55		55
Height (A)		mm	565	565		565		565
Wirdth (B)		mm	280	280		280		280
Depth (C)		mm	220	278		278		278
Weight		kg	18	20		23		20

COMPACT PROTHERM CNE/CNO WITH REFRIGERANT GAS R134a



CODE		M.U.	CNE04U120380000	CNE07U120380000	CNE10U120380000	CNO04U120380000	CNO07U120380000	CNO10U120380000
UL LISTED			✓	✓	✓	✓	✓	✓
Rated Voltage		V , ~	115, 1	115, 1	115, 1	115, 1	115, 1	115, 1
Nominal Frequency		Hz	60	60	60	60	60	60
Cooling Capacity	L35L35	W	455	625	950	455	625	950
Cooling Capacity	L35L50	W	335	460	700	335	460	700
Power Consumption	L35L50	W	255	335	555	255	335	555
Max current consumption.		A	2,49	3,21	5,09	2,49	3,71	5,09
Start-up current	CE	A	--	--	--	--	--	--
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45	+25 / +45	+25 / +45	+25 / +45
External operating temp.	min/max	°C	+20 / +50	+20 / +50	+20 / +50	-20 / +55	-20 / +55	-20 / +55
Protection Degree internal circuit	CE	IP	--	--	--	--	--	--
	UL	Type	12	12	12	4	4	4
External sound pressure		dB(A)	55	55	58	55	55	58
Height (A)		mm	565	565	565	565	565	565
Wirdth (B)		mm	280	280	280	280	280	280
Depth (C)		mm	220	220	278	220	220	278
Weight		kg	17	18	20	17	18	20

Optional Compact Protherm Indoor CNE

CODE	Special Colour	AISI304 Stainless Steel Housing	AISI316 Stainless Steel Housing	Remote Probe	Condenser Protective Treatment
CNE04	OCASCCP	OCAINI0404/10	OCAINI1604/10	OCARESCP	OCATC04
CNE07	OCASCCP	OCAINI0404/10	OCAINI1604/10	OCARESCP	OCATC07
CNE10	OCASCCP	OCAINI0410	OCAINI1610	OCARESCP	OCATC07

Accessories Compact Protherm Indoor CNE

CODE	Air Filter	Baffle	IP55 Gasket	Sequencing Cable	Modbus Serial Port	Rubber Caps	30° Sloped Roof
CNE04	ACAFLTI04 (1)	ACABAF04	ACAG03 (2)	ACASEQ	ACASPM	ACACAP	ACATOP04/10
CNE07	ACAFLTI04 (1)	ACABAF04	ACAG03 (2)	ACASEQ	ACASPM	ACACAP	ACATOP04/10
CNE10	ACAFLTI04 (1)	ACABAF10	ACAG03 (2)	ACASEQ	ACASPM	ACACAP	ACATOP10

(1) Available only for units in painted sheet metal
(2) Only for CE units

Option for Accessories Compact Protherm Indoor CNE

CODE	Special Colour	AISI304 Stainless Steel	AISI316 Stainless Steel
ACAFLTI04	OCASCFLTI04	---	---
ACATOP04	OCASCTOP04	OCAINI04T04	OCAINI16T04
ACATOP10	OCASCTOP10	OCAINI04T10	OCAINI16T10

Optional Compact Protherm Outdoor CNO

CODE	Special Colour (only for CE units)	AISI304 Stainless Steel Housing	AISI316 Stainless Steel Housing	Condenser Protective Treatment	Remote Probe	Electric Heating
CNO04	OCASCCP	OCAINI0404/10	OCAINI1604/10	OCATC04	OCARESCP (1)	RSC06 (2)
CNO07	OCASCCP	OCAINI0404/10	OCAINI1604/10	OCATC07	OCARESCP (1)	RSC06 (2)
CNO10	OCASCCP	OCAINI0410	OCAINI1610	OCATC07	OCARESCP (1)	RSC06 (2)

(1) Only with electrical heater
(2) Only for 230V-400V/460V tension

Accessories Compact Protherm Outdoor CNO

CODE	Sequencing Cable	Modbus Serial Port	Keypad	Rubber Caps	30° Sloped Roof
CNO04	ACASEQ	ACASPM	ACAKPD	ACACAP	ACATOP04/10
CNO07	ACASEQ	ACASPM	ACAKPD	ACACAP	ACATOP04/10
CNO10	ACASEQ	ACASPM	ACAKPD	ACACAP	ACATOP10

Options for Accessories Compact Protherm Outdoor

CODE	Special Colour	AISI304 Stainless Steel	AISI316 Stainless Steel
ACATOP04	OCASCTOP04	OCAINI04T04	OCAINI16T04
ACATOP10	OCASCTOP10	OCAINI04T10	OCAINI16T10

SlimIn R513A

Indoor

SlimIn is the range of extra-flat air conditioners designed for external, semi-flush or flush mounting, ideal for installations requiring small overall dimensions and reduced protrusion from the panel. The characteristics of the unit allow easy and quick installation.

Efficiency at the forefront

Slim In has high EER values and consequent cost savings thanks to the use of:

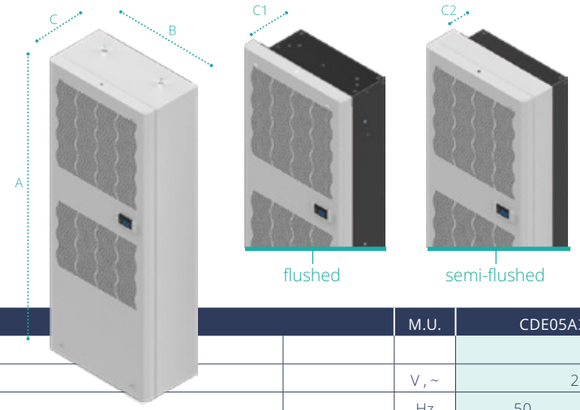
- high performance compressors and fans
- micro-channel condenser, which with its reduced thickness allows better air flow
- energy saving functions (SEM and SEM2)

The SlimIn CDE range of air conditioners guarantees considerable economic savings, up to values of 50%, and time savings, thanks to the solutions adopted, which make the installation of the air conditioner and any maintenance activities easier and quicker to carry out.

Main Features

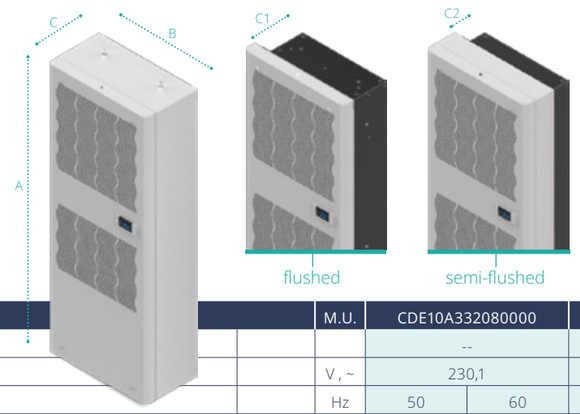
- High Efficiency
- Cooling Capacity: 500 - 4000 W
- XCB electronic board + display
- Installation: Flush, semi-flush, external mounting
- Quick electric connections
- Sequencing and Modbus
- µchannel condenser (from CDE14)
- Condensate Dissipator (from CDE14)
- General alarm and remote enable contacts
- Gasket already installed on the air conditioner
- Functioning up to +60°C external temperature
- Certifications: CE, UL Listed

CDE05

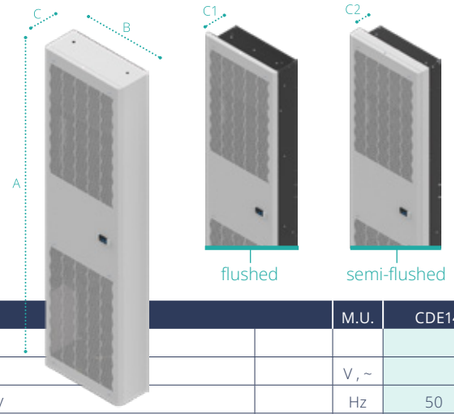


CODE		M.U.	CDE05A332080000		CDE05U332080000	
UL LISTED			--		✓	
Rated Voltage		V , ~	230,1		230,1	
Nominal Frequency		Hz	50	60	50	60
Cooling Capacity	L35L35	W	600	610	600	610
Cooling Capacity	L35L50	W	420	450	420	450
Max power consumption.		W	280	320	280	320
Internal operating temp..	min/max	°C	25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55	
Protection Degree internal circuit		IP	54		54	
		Type	--		12	
External sound pressure		dB(A)	58		58	
Height (A)		mm	956		956	
Wirdth (B)		mm	375		375	
Depth (C - C1 - C2)		mm	196 - 155 - 89		196 - 155 - 89	
Weight		kg	29		29	

CDE10

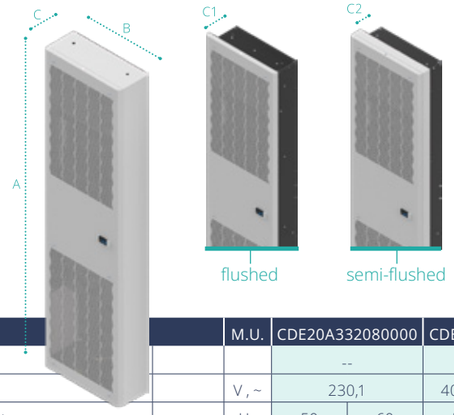


CODE		M.U.	CDE10A332080000		CDE10U330380000	CDE10U332080000	
UL LISTED			--		✓	✓	
Rated Voltage		V , ~	230,1		115,1	230,1	
Nominal Frequency		Hz	50	60	60	50	60
Cooling Capacity	L35L35	W	900	1000	950	900	1000
Cooling Capacity	L35L50	W	640	700	--	640	700
Max power consumption.		W	660	880	550	660	880
Internal operating temp..	min/max	°C	25/45		25/35	25/45	
External operating temp.	min/max	°C	20/55		20/45	20/55	
Protection Degree internal circuit		IP	54		54	54	
		Type	--		12	12	
External sound pressure		dB(A)	58		58	58	
Height (A)		mm	956		956	956	
Wirdth (B)		mm	375		375	375	
Depth (C - C1 - C2)		mm	196 - 155 - 89		196 - 155 - 89	196 - 155 - 89	
Weight		kg	32		32	32	



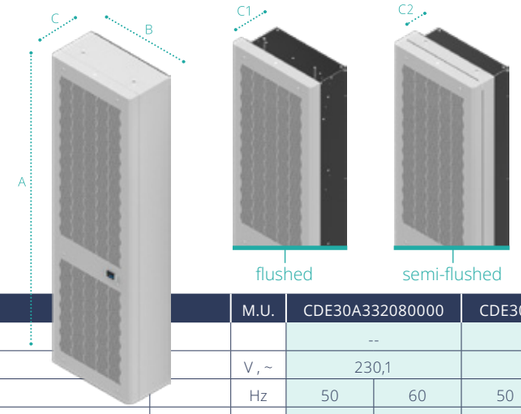
CDE14

CODE		M.U.	CDE14A332080000		CDE14A332880000		CDE14U332080000	
UL LISTED			--		--		✓	
Rated Voltage		V , ~	230,1		400,2	460,2	230,1	
Nominal Frequency		Hz	50	60	50	60	50	60
Cooling Capacity	L35L35	W	1400	1500	1400	1500	1400	1500
Cooling Capacity	L35L50	W	1100	1150	1100	1150	1100	1150
Max power consumption.		W	860	920	860	920	860	920
Internal operating temp..	min/max	°C	25/45		25/45		25/45	
External operating temp.	min/max	°C	20/60		20/55		20/60	
Protection Degree internal circuit		IP	54		54		54	
		Type	--		--		12	
External sound pressure		dB(A)	58		58		58	
Height (A)		mm	1666		1666		1666	
Wirdth (B)		mm	454		454		454	
Depth (C - C1 - C2)		mm	181 - 156 - 111		181 - 156 - 111		181 - 156 - 111	
Weight		kg	51		59		51	



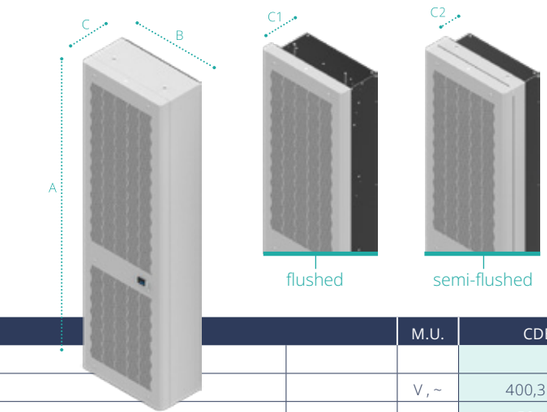
CDE20

CODE		M.U.	CDE20A332080000		CDE20A336180000		CDE20U332080000		CDE20U336280000		CDE20U330380000
UL LISTED			--		--		✓		✓		✓
Rated Voltage		V , ~	230,1		400,3	460,3	230,1		400,3	460,3	115,1
Nominal Frequency		Hz	50	60	50	60	50	60	50	60	60
Cooling Capacity	L35L35	W	2100	2150	2150	2200	2100	2150	2150	2200	1950
Cooling Capacity	L35L50	W	1650	1700	1650	1700	1650	1700	1650	1700	--
Max power consumption.		W	1390	1710	1200	1460	1390	1710	1200	1390	1410
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45		25/45
External operating temp.	min/max	°C	20/60		20/60		20/55		20/55		20/45
Protection Degree internal circuit		IP	54		54		54		54		54
		Type	--		--		12		12		12
External sound pressure		dB(A)	68		68		68		68		68
Height (A)		mm	1666		1666		1666		1666		1666
Wirdth (B)		mm	454		454		454		454		454
Depth (C - C1 - C2)		mm	181 - 156 - 111		181 - 156 - 111		181 - 156 - 111		181 - 156 - 111		181 - 156 - 111
Weight		kg	55		59		55		59		55



CDE30

CODE		M.U.	CDE30A332080000		CDE30A336180000		CDE30U332080000		CDE30U336280000	
UL LISTED			--		--		✓		✓	
Rated Voltage		V , ~	230,1		400,3		230,1		400,3	460,3
Nominal Frequency		Hz	50	60	50	60	50	60	50	60
Cooling Capacity	L35L35	W	3100	3400	3100	3500	3100	3400	3100	3500
Cooling Capacity	L35L50	W	2450	2750	2500	2800	2450	2750	2500	2800
Max power consumption.		W	1460	1810	1510	1840	1460	1730	1510	1740
Internal operating temp..	min/max	°C	25/45		25/45		25/45		25/45	
External operating temp.	min/max	°C	20/60		20/60		20/55		20/55	
Protection Degree internal circuit		IP	54		54		54		54	
		Type	--		--		12		12	
External sound pressure		dB(A)	68		68		68		68	
Height (A)		mm	1666		1666		1666		1666	
Wirdth (B)		mm	496		496		496		496	
Depth (C - C1 - C2)		mm	221 -195 - 121		221 -195 - 121		221 -195 - 121		221 -195 - 121	
Weight		kg	59		70		59		70	



CDE40

CODE		M.U.	CDE40A336180000		CDE40U336280000	
UL LISTED			--		✓	
Rated Voltage		V , ~	400,3	460,3	400,3	460,3
Nominal Frequency		Hz	50	60	50	60
Cooling Capacity	L35L35	W	4000	4100	3500	3800
Cooling Capacity	L35L50	W	2750	3350	2350	3100
Max power consumption.		W	2140	2550	1600	1940
Internal operating temp..	min/max	°C	25/45		25/45	
External operating temp.	min/max	°C	20/55		20/55	
Protection Degree internal circuit		IP	54		54	
		Type	--		12	
External sound pressure		dB(A)	72		72	
Height (A)		mm	1666		1666	
Wirdth (B)		mm	496		496	
Depth (C - C1 - C2)		mm	256 -195 - 121		256 -195 - 121	
Weight		kg	79		79	

Optional SlimIn CDE

CODE	Special Colour	Stainless Steel AISI304 Panel	Stainless Steel AISI316 Panel	Phase control module (three-phase models only)	Remote probe
CDE05	OCASCCDE	OCAINCDE0405	OCAINCDE1605	--	OCARESCDE
CDE10	OCASCCDE	OCAINCDE0405	OCAINCDE1605	--	OCARESCDE
CDE14	OCASCCDE	OCAINCDE0414	OCAINCDE1614	--	OCARESCDE
CDE20	OCASCCDE	OCAINCDE0414	OCAINCDE1614	OCACFM	OCARESCDE
CDE30	OCASCCDE	OCAINCDE0430	OCAINCDE1630	OCACFM	OCARESCDE
CDE40	OCASCCDE	OCAINCDE0440	OCAINCDE1640	OCACFM	OCARESCDE

Accessories SlimIn CDE

CODE	Semi-flush mounting frame	Frames External Mounting	Air filter - only for units in painted sheet metal	Sequencing cable
CDE05	ACASFRCDE05	ACAFRCDE05	ACAFLTCDE05	ACASEQ
CDE10	ACASFRCDE05	ACAFRCDE05	ACAFLTCDE05	ACASEQ
CDE14	ACASFRCDE14	ACAFRCDE14	ACAFLTCDE14	ACASEQ
CDE20	ACASFRCDE14	ACAFRCDE14	ACAFLTCDE14	ACASEQ
CDE30	ACASFRCDE30	ACAFRCDE30	ACAFLTCDE30	ACASEQ
CDE40	ACASFRCDE30	ACAFRCDE30	ACAFLTCDE30	ACASEQ

Optional for Accessories SlimIn CDE

CODE	Special Colour	Stainless steel AISI304	Stainless steel AISI316
ACASFRCDE05	OCASCSFRCDE	OCASFRICDE05	OCASFRCCDE05
ACAFRCDE05	OCASCFRCDE	OCAFRICDE05	OCAFRCCDE14
ACASFRCDE14	OCASCSFRCDE	OCASFRICDE14	OCASFRCCDE14
ACAFRCDE14	OCASCFRCDE	OCAFRICDE14	OCAFRCCDE14
ACASFRCDE30	OCASCSFRCDE	OCASFRICDE30	OCASFRCCDE30
ACAFRCDE30	OCASCFRCDE	OCAFRICDE30	OCAFRCCDE30
ACAFLTCDE05	OCASCFLTCDE	--	--
ACAFLTCDE14	OCASCFLTCDE	--	--
ACAFLTCDE30	OCASCFLTCDE	--	--

FlexIn

Indoor

Available until stock is depleted (check availability with Customer Care)

Industrial air conditioners with inverter technology
In the last few years all sectors have been transformed to achieve a better exchange of information in the shortest time possible. The need of connectivity between systems increased also in the industrial field, to improve the production processes. We have just entered the fourth industrial revolution, also known as Industry 4.0: all the systems
should be designed to interact, with integrated connectivity to improve processes. Industrial air conditioning has adapted to this growing demand and the units have been improved with the introduction of the Modbus RTU serial connection and, in the last period, driven by the digitalisation of the production process, the Ethernet connection.

Connectivity 4.0

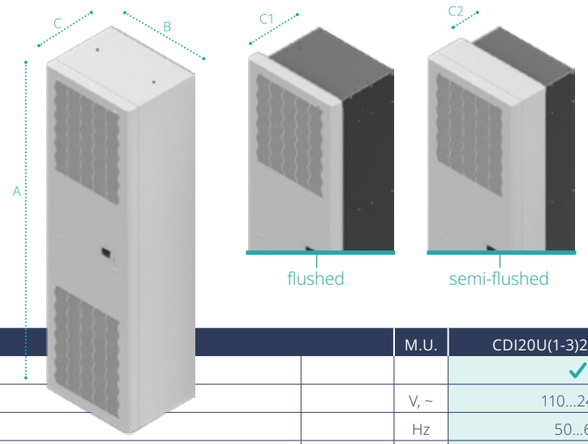
Thanks to the **Ethernet port**, integrated in the electronic controller of the FLEX In Inverter CDI the air conditioners can be **monitored** and **controlled** from any remote position 24 hours a day. Many parameters can be read and recorded, giving the possibility to **increase the efficiency** of the air conditioners and adopt the **predictive maintenance** and so the reliability, decreasing in this way possible faults of the air conditioner and of the whole system, without additional costs for interface device.
With its integrated Ethernet port, that allows the direct connection to the air conditioner with the most common industrial protocols (HTTP, SNMP, Modbus TCP/IP), the air conditioner CDI is perfectly integrated into Industry 4.0 and Smart Factory, leading to greater automation, real time production, **efficiency and flexibility.**

Main Features

- Inverter Technology air conditioner
- High energy savings and High efficiency
- External, semi-flush or flush mounting
- Cooling Capacity: 2000W / 2600W / 4200W
- Quick electric connections
- Sequencing and Ethernet
- µchannel condenser with protective treatment
- Condensate Dissipator
- General alarm and remote enable contacts
- Gasket already installed on the air conditioner
- Functioning up to +60°C external temperature
- Low noise
- Certifications: CE, UL Listed

Available until stock is depleted (check availability with Customer Care)

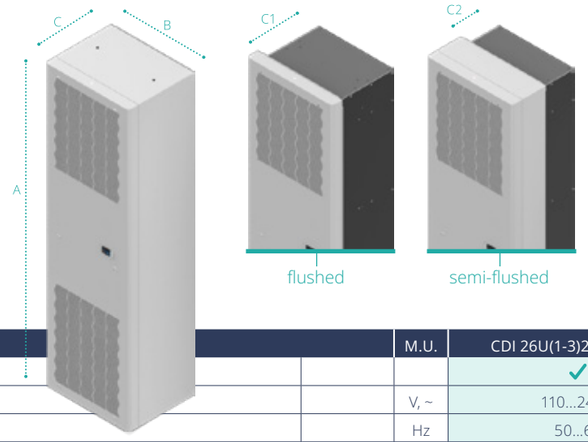
CDI20



CODE		M.U.	CDI20U(1-3)23G90000*	CDI20U(1-3)23H90000*
UL Listed			✓	✓
Rated Voltage		V, ~	110...240,1	380...480,3
Nominal Frequency		Hz	50...60	50...60
Cooling Capacity	L35L35	W	2000	2000
Cooling Capacity	L35L50	W	1420	1420
Power Consumption	L35L50	W	610	575
Internal operating temp..	min/max	°C	+20...+45	+20...+45
External operating temp.	min/max	°C	-20...+60	-20...+60
Protection Degree internal circuit	CE	IP	54	54
	UL	Type	12	12
External sound pressure		dB(A)	61,5	61,5
Height (A)		mm	1666	1666
Wirdth (B)		mm	454	454
Depth (C - C1 - C2)		mm	294 - 250 - 111	294 - 250 - 111

* 1: External mounting 3: Flush mounting

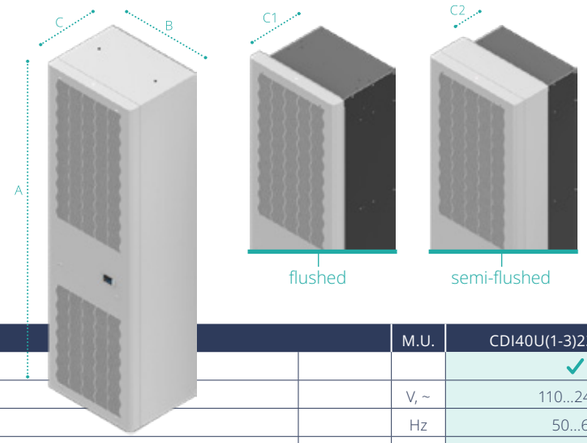
CDI26



CODE		M.U.	CDI 26U(1-3)23G90000*	CDI 26U(1-3)23H90000*
UL Listed			✓	✓
Rated Voltage		V, ~	110...240,1	380...480,3
Nominal Frequency		Hz	50...60	50...60
Cooling Capacity	L35L35	W	2600	2600
Cooling Capacity	L35L50	W	2100	2100
Power Consumption	L35L50	W	1060	980
Internal operating temp..	min/max	°C	+20...+45	+20...+45
External operating temp.	min/max	°C	-20...+60	-20...+60
Protection Degree internal circuit	CE	IP	54	54
	UL	Type	12	12
External sound pressure		dB(A)	62,5	62,5
Height (A)		mm	1666	1666
Wirdth (B)		mm	496	496
Depth (C - C1 - C2)		mm	294 - 232 - 121	294 - 232 - 121

* 1: External mounting 3: Flush mounting

Available until stock is depleted (check availability with Customer Care)



CDI40

CODE		M.U.	CDI40U(1-3)23G90000*	CDI40U(1-3)23H90000*
UL Listed			✓	✓
Rated Voltage		V, ~	110...240,1	380...480,3
Nominal Frequency		Hz	50...60	50...60
Cooling Capacity	L35L35	W	4200	4200
Cooling Capacity	L35L50	W	3350	3350
Power Consumption	L35L50	W	1385	1325
Internal operating temp..	min/max	°C	+20...+45	+20...+45
External operating temp.	min/max	°C	-20...+60	-20...+60
Protection Degree internal circuit	CE	IP	54	54
	UL	Type	12	12
External sound pressure		dB(A)	66	66
Height (A)		mm	1666	1666
Wirdth (B)		mm	496	496
Depth (C - C1 - C2)		mm	393 - 332 - 121	393 - 332 - 121

* 1: External mounting 3: Flush mounting

Optional Flex In CDI

CODE	Special Colour	Stainless Steel AISI304 Panel	Stainless Steel AISI316 Panel
CDI20	OCASCCDI(U1-U3)	OCAINCDI04(U1-U3)	OCAINCDI16(U1-U3)
CDI26	OCASCCDI(U1-U3)	OCAINCDI04(U1-U3)	OCAINCDI16(U1-U3)
CDI40	OCASCCDI(U1-U3)	OCAINCDI04(U1-U3)	OCAINCDI16(U1-U3)

Accessories Flex In CDI

CODE	Semi-flush mounting frame	Air filter - only for units in painted sheet metal	Sequencing cable	LAN doubler for se-quencing	Remote probe
CDI20	ACASFRCDI20	ACAFLTCDI20	ACASEQCDI	ACADLCDI	ACARESCDI
CDI26	ACASFRCDI26	ACAFLTCDI26	ACASEQCDI	ACADLCDI	ACARESCDI
CDI40	ACASFRCDI40	ACAFLTCDI26	ACASEQCDI	ACADLCDI	ACARESCDI

Optional Per Accessories Flex In CDI

CODE	Special Colour	Stainless steel AISI304	Stainless steel AISI316
ACASFRCDI20	OCASCSFRCDI	OCASFRICDI	OCASFRCCDI
ACASFRCDI26	OCASCSFRCDI	OCASFRICDI	OCASFRCCDI
ACASFRCDI40	OCASCSFRCDI	OCASFRICDI	OCASFRCCDI
ACAFLTCDI20	OCASCSFRCDI	--	--
ACAFLTCDI26	OCASCSFRCDI	--	--
ACAFLTCDI40	OCASCSFRCDI	--	--

TOP

Indoor

Industrial roof-mounted air conditioners allow the cooling of electrical cabinets even in situations where space is at a premium, such as in cabinet batteries or when escape routes must be left clear for safety reasons.

Effective Condensate Management

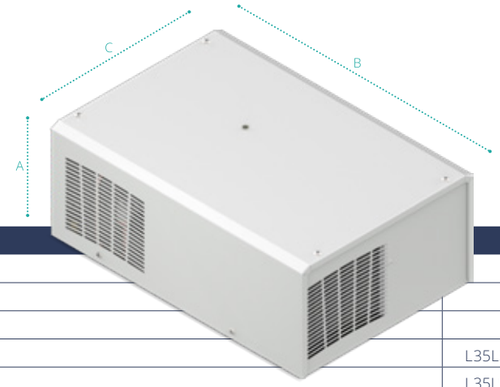
The solutions on the models allow optimal condensate management. The return air path ensures that no condensation forms on the roof of the cabinet and, in addition, from model ETE14 (1400W), the units are equipped with a condensate sink, without absorption of electrical power, for the reduction or elimination of condensation. For the models ETE06/09 there is a level switch to control the condensate in the condensate tray of the air conditioner.

Optimized air flows

Thanks to the high distance between the intake and the supply of internal air, it is possible to avoid short circuits of cold air, without the need to install conveyors and guaranteeing reliable operation. In addition, starting from the ETE14 model, thanks to the management of the room air flow, it is possible to install air conditioners adjacent to each other, optimising installation layouts.

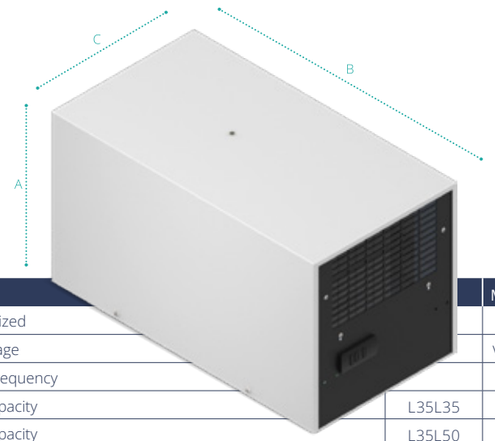
Main Features

- Cooling Capacity: 330-5200 W
- Condensate dissipator available from ETE14
- Quick connections (except ETE03)
- Digital Thermostat ECB (except ETE03)
- General alarm contacts and remote control as standard (except for ETE03)
- Certifications: CE, UL Recognized



ETE03

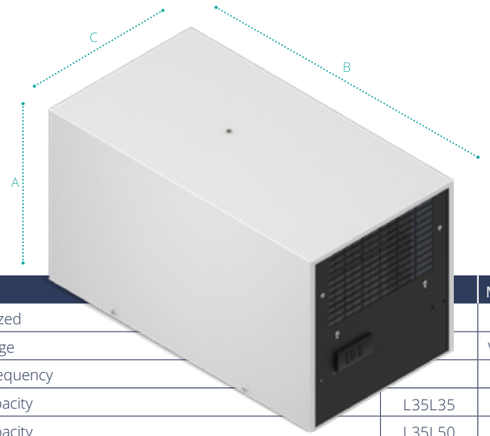
CODE		M.U.	ETE0300220	ETE0300203
UL Recognized			--	--
Rated Voltage		V , ~	230 , 1	115 , 1
Nominal Frequency		Hz	50/60	60
Cooling Capacity	L35L35	W	330	330
Cooling Capacity	L35L50	W	270	270
Power Consumption	L35L50	W	240	240
Current consumption	CE, L35L35	A	1,4	2,8
	UL, L45L55	A	--	--
Start-up current		A	5	10
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45
External operating temp.	min/max	°C	+20 / +55	+20 / +55
Internal circuit protection degree	CE	IP	54	54
	UL	Type	--	--
External sound pressure		dB(A)	60	60
Height (A)		mm	180	180
Width (B)		mm	476	476
Depth (C)		mm	324	324
Weigth		kg	17	17



ETE06

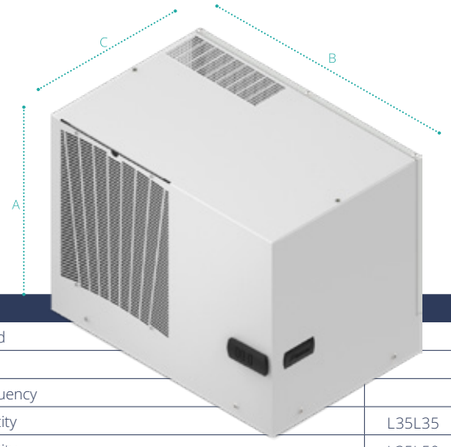
CODE		M.U.	ETE06012207000	ETE06U12207000	ETE06012287000	
UL Recognized			--	✓	--	
Rated Voltage		V , ~	230 , 1	230 , 1	400 , 2	460 , 2
Nominal Frequency		Hz	50/60	50-60	50	60
Cooling Capacity	L35L35	W	600	600	600	
Cooling Capacity	L35L50	W	510	510	510	
Power Consumption	L35L50	W	411	411	411	
Current consumption	CE, L35L35	A	2,2		1,2	
	UL, L45L55	A	--	3	--	
Start-up current		A	16	16	7,7	
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45	
External operating temp.	min/max	°C	+20 / +55	+20 / +55	+20 / +55	
Internal circuit protection degree	CE	IP	54	54	54	
	UL	Type	--	--	--	
External sound pressure		dB(A)	63	63	63	
Height (A)		mm	335	335	335	
Width (B)		mm	600	600	600	
Depth (C)		mm	325	325	325	
Weigth		kg	29,5	29,5	32	

ETE09



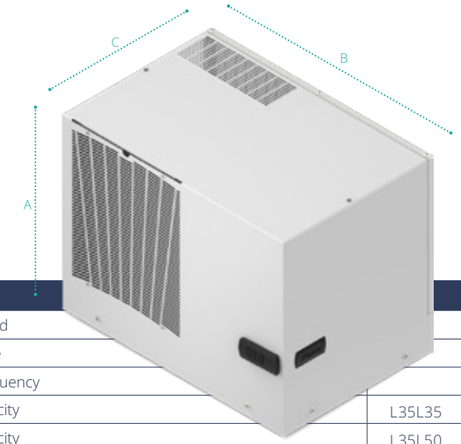
CODE		M.U.	ETE09U12207000	ETE09022207000	ETE09022287000	
				with refrigerant gas R513A		
UL Recognized			✓	--	--	
Rated Voltage		V , ~	230 , 1	230 , 1	400 , 2	460 , 2
Nominal Frequency		Hz	50/60	50/60	50	60
Cooling Capacity	L35L35	W	900	875	875	
Cooling Capacity	L35L50	W	760	600	600	
Power Consumption	L35L50	W	630	588	588	
Current consumption	CE, L35L35	A	--	3,7	2	
	UL, L45L55	A	4	--	--	
Start-up current		A	15	15	31	
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45	
External operating temp.	min/max	°C	+20 / +55	+20 / +55	+20 / +55	
Internal circuit protection degree	CE	IP	54	54	54	
	UL	Type	--	--	--	
External sound pressure		dB(A)	67	67	67	
Height (A)		mm	335	335	335	
Width (B)		mm	600	600	600	
Depth (C)		mm	325	325	325	
Weigth		kg	31,5	31,5	33	

ETE14



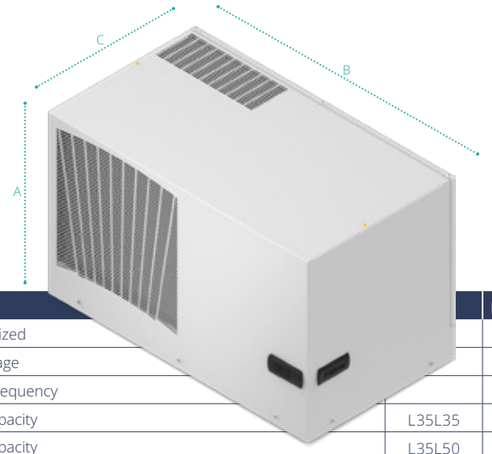
CODE		M.U.	ETE14002207000	ETE14U02207000	ETE14002287000	
UL Recognized			--	✓	--	
Rated Voltage		V , ~	230 , 1	230 , 1	400 , 2	460 , 2
Nominal Frequency		Hz	50/60	50/60	50	60
Cooling Capacity	L35L35	W	1400	1400	1400	
Cooling Capacity	L35L50	W	1170	1170	1170	
Power Consumption	L35L50	W	950	950	950	
Current consumption	CE, L35L35	A	5,2	--	2,8	
	UL, L45L55	A	--	5,5	--	
Start-up current		A	17	17	31	
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45	
External operating temp.	min/max	°C	+20 / +55	+20 / +55	+20 / +55	
Internal circuit protection degree	CE	IP	54	54	54	
	UL	Type	--	--	--	
External sound pressure		dB(A)	58	58	58	
Height (A)		mm	450	450	450	
Width (B)		mm	600	600	600	
Depth (C)		mm	400	400	400	
Weigth		kg	48	48	53	

ETE20

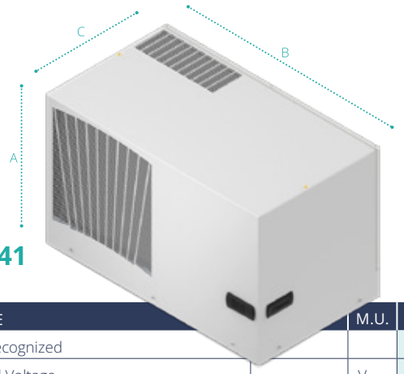


CODE		M.U.	ETE20002207000	ETE20U02207000	ETE20002287000	
UL Recognized			--	✓	--	
Rated Voltage		V , ~	230 , 1	230 , 1	400 , 2	460 , 2
Nominal Frequency		Hz	50/60	50/60	50	60
Cooling Capacity	L35L35	W	2000	2000	2000	
Cooling Capacity	L35L50	W	1700	1700	1700	
Power Consumption	L35L50	W	1200	1200	1200	
Current consumption	CE, L35L35	A	5,7	--	3,3	
	UL, L45L55	A	--	7	--	
Start-up current		A	22	22	31	
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45	
External operating temp.	min/max	°C	+20 / +55	+20 / +55	+20 / +55	
Internal circuit protection degree	CE	IP	54	54	54	
	UL	Type	--	--	--	
External sound pressure		dB(A)	62	62	62	
Height (A)		mm	450	450	450	
Width (B)		mm	600	600	600	
Depth (C)		mm	400	400	400	
Weigth		kg	51,5	51,5	58,5	

ETE28

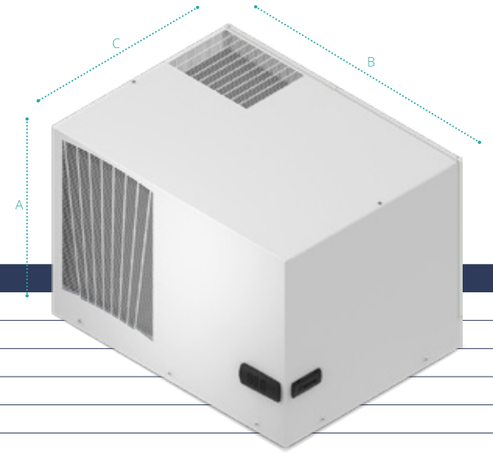


CODE		M.U.	ETE28002207000	ETE28U02207000	ETE28002617000	
UL Recognized			--	✓	--	
Rated Voltage		V , ~	230 , 1	230 , 1	400 , 3	460 , 3
Nominal Frequency		Hz	50/60	50/60	50	60
Cooling Capacity	L35L35	W	2700	2700	2700	
Cooling Capacity	L35L50	W	2300	2300	2300	
Power Consumption	L35L50	W	1580	1660	1580	
Current consumption	CE, L35L35	A	7	--	2,3	
	UL, L45L55	A	--	9,5	--	
Start-up current		A	38	38	16	
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45	
External operating temp.	min/max	°C	+20 / +55	+20 / +55	+20 / +55	
Internal circuit protection degree	CE	IP	54	54	54	
	UL	Type	--	--	--	
External sound pressure		dB(A)	77	77	77	
Height (A)		mm	480	480	480	
Width (B)		mm	800	800	800	
Depth (C)		mm	450	450	450	
Weigth		kg	74,5	74,5	76,5	



ETE41

CODE		M.U.	ETE41002207000	ETE41U02207000	ETE41002617000		ETE41U02627200	
UL Recognized			--	✓	--		✓	
Rated Voltage		V , ~	230 , 1	230 , 1	400 , 3	460 , 3	400 , 3	460 , 3
Nominal Frequency		Hz	50/60	50/60	50	60	50	60
Cooling Capacity	L35L35	W	3800	3800	3800		3800	
Cooling Capacity	L35L50	W	2700	2700	2700		2700	
Power Consumption	L35L50	W	2000	2050	2000		1920	
Current consumption	CE, L35L35	A	9	--	2,9		--	
	UL, L45L55	A	--	9	--		3,5	
Start-up current		A	38	--	17		--	
Internal operating temp..	min/max	°C	+25 / +45	+25 / +45	+25 / +45		+25 / +45	
External operating temp.	min/max	°C	+20 / +55	+20 / +55	+20 / +55		+20 / +55	
Internal circuit protection degree	CE	IP	54	54	54		54	
	UL	Type	--	--	--		--	
External sound pressure		dB(A)	77	77	77		77	
Height (A)		mm	480	480	480		480	
Width (B)		mm	800	800	800		800	
Depth (C)		mm	450	450	450		450	
Weigth		kg	76,5	76,5	79,5		76,5	



ETE60

CODE		M.U.	ETE60002617000	
UL Recognized			--	
Rated Voltage		V , ~	400 , 3	460 , 3
Nominal Frequency		Hz	50	60
Cooling Capacity	L35L35	W	5200	
Cooling Capacity	L35L50	W	4100	
Power Consumption	L35L50	W	2540	
Current consumption	CE,L35L35	A	4,6	
	UL, L45L55	A	--	
Start-up current		A	25	
Internal operating temp..	min/max	°C	+25 / +45	
External operating temp.	min/max	°C	+20 / +55	
Internal circuit protection degree	CE	IP	54	
	UL	Type	--	
External sound pressure		dB(A)	77	
Height (A)		mm	550	
Width (B)		mm	800	
Depth (C)		mm	600	
Weigth		kg	94	

Optional Top ETE

CODE	Special Colour	Stainless Steel AISI304 housing
ETE03	OCAHNS02	OCAHI06
ETE06	OCAHNS03	OCAHI06
ETE09	OCAHNS03	OCAHI06
ETE14	OCAHNS03	OCAHI06
ETE20	OCAHNS03	OCAHI06
ETE28	OCAHNS01	OCAHI28
ETE41	OCAHNS01	OCAHI28
ETE60	OCAHNS01	OCAHI60

Accessories Top ETE

CODE	Filter
ETE03	--
ETE06	ACAFILT06T
ETE09	ACAFILT06T
ETE14	ACAFILT14T
ETE20	ACAFILT14T
ETE28	ACAFILT28T
ETE41	ACAFILT28T
ETE60	ACAFILT60T

Module

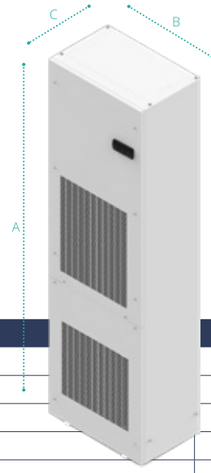
Indoor

Industrial air conditioners for modular electrical enclosures. **Module** air conditioners are the best technical and economical solution for conditioning long rows of cabinets, where large cooling capacities are required.

Machine tools, such as for die-casting or extrusion, may require large automation and control systems with high thermal loads, even above 4kW. In this case, the **Module** range with 6kW to 10kW enables the required cooling needs to be met optimally.

Main Features

- Air conditioner for modular enclosures
- Cooling Capacity: 5800-10000 W
- Digital Thermostat ECB
- General alarm contacts and remote control as standard
- Certifications: CE



EVE60-80-A0

CODE		M.U.	EVE60002617000		EVE80002617000		EVEA0002617000	
Rated Voltage		V , ~	400 , 3	460 , 3	400 , 3	460 , 3	400 , 3	460 , 3
Nominal Frequency		Hz	50	60	50	60	50	60
Cooling Capacity	L35L35	W	5800		8000		10000	
Cooling Capacity	L35L50	W	4500		5900		7800	
Power Consumption	L35L50	W	2614		3619		4500	
Current consumption	CE, 35L35	A	5,8		7		7	
Start-up current	CE	A	28		28		40	
Internal operating temp..	min/max	°C	+25 / +45		+25 / +45		+25 / +45	
External operating temp.	min/max	°C	+20 / +50		+20 / +50		+20 / +50	
Internal circuit protection degree	CE	IP	54		54		54	
External sound pressure		dB(A)	75		76		76	
Height (A)		mm	2000		2000		2000 x 800 x 383	
Width (B)		mm	600		800		800	
Depth (C)		mm	383		383		383	
Weigth		kg	100		110		150	

Smart

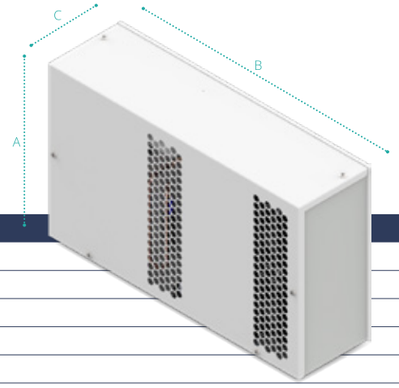
Indoor

The solution for horizontal boxes

Some applications, such as small boxes integrated in machine tools, run horizontally rather than vertically. The Smart industrial air conditioner is the ideal solution because its horizontal layout, with compact height and depth dimensions, allows for simple and immediate installation on the machine or on control panels.

Main Features

- Horizontal Installation
- Cooling Capacity: 420W
- Power Supply 230 50/60 Hz
- Mechanic Thermostat
- Certifications: CE



EVE03H

CODE		M.U.	EVE03H3220
Rated Voltage		V , ~	230 , 1
Nominal Frequency		Hz	50/60
Cooling Capacity	L35L35	W	420
Cooling Capacity	L35L50	W	280
Power Consumption	L35L50	W	300
Current consumption	CE, L35L35	A	1,2
Start-up current	CE	A	3
Internal operating temp..	min/max	°C	+25 / +45
External operating temp.	min/max	°C	+20 / +55
Internal circuit protection degree	CE	IP	54
External sound pressure		dB(A)	60
Height (A)		mm	300
Width (B)		mm	500
Depth (C)		mm	140
Weigth		kg	17

Optional Smart EVE03H

CODE	Special Colour	Stainless Steel AISI304 housing
EVE03H	OCAVNS02	OCAVISM

Industrial Heat Exchangers

Air/Water Heat Exchangers

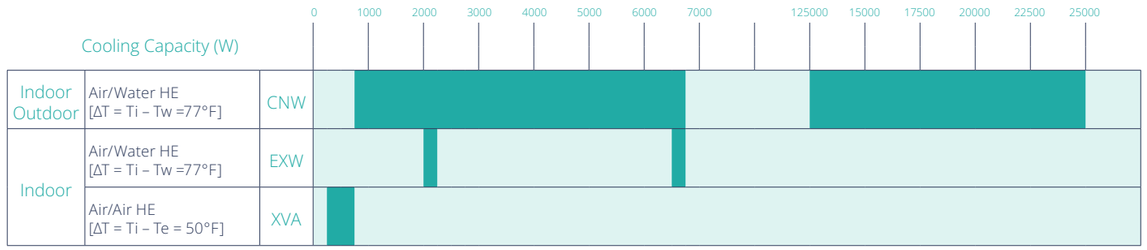
Using water as the cooling medium, Air/Water heat exchangers can provide high cooling capacities in relatively small sizes. They have a higher cooling capacity for the same size of an air conditioner and high savings can be achieved if several units are connected to an industrial chiller.

Air/Water exchangers are recommended if:

- the outside air has a higher temperature value than the inside air
- the ambient air is extremely oily or dusty
- outside air and humidity must not enter the cabinet
- no heat is released into the environment
- cold/chilled water is available

Air/Air Heat Exchangers

- By exploiting the heat exchange between two separate air flows through an aluminium pack, air/air exchangers allow heat to be dissipated inside electrical panels with low maintenance and small dimensions. They are recommended if:
-
- the outside air has a lower temperature value than the inside air (approx. ΔT=10°C)
- a low cooling capacity is required
- little maintenance is required
- the ambient air is excessively oily or dusty
- outside air and humidity cannot enter the cabinet



Watherm CNW

Wall-Mounted Air/Water Heat Exchangers
Application: Indoor and Outdoor

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Rooftherm EXW

Wall and Roof (EXWxx0H) mounted Air/Water Heat Exchangers
Application: Indoor

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Aertherm XVA

Air/Air Heat exchangers
Application: Indoor

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Watherm Indoor/Outdoor / Rooftherm Indoor

CNW / EXW

One power level for every requirement and the widest range on the market up to 25,000W

The range of heat exchangers offers a wide cooling capacity range to meet any requirement. The units are compact in size.

A 360° range of exchangers

The CNW (wall-mounted) and EXW (roof-mounted) exchangers are ideal for cooling electrical panels in processes where chilled water is already available from a centralized system or from a user line (e.g., press, laser). The exchangers can also be connected to water cooling circuits powered by Cosmotec chillers, making them a particularly advantageous solution when multiple cooling units are installed on a single system.

Outdoor and Nema 4/4x (CNW)

By using glycol water, pipe freezing is prevented at temperatures below 0°C. For Outdoor applications and where Nema 4/4x protection is required, units with electronic board, solenoid valve, and level switch must be selected with the remote display option.

Ideal for applications requiring:

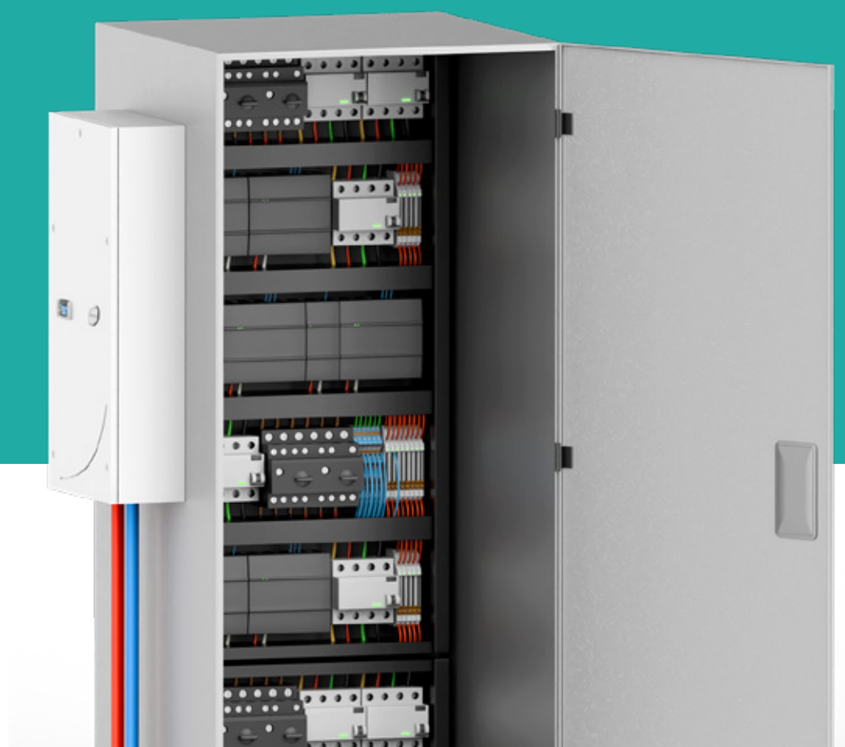
- **High cooling capacity in a compact footprint**
- **No heat emission into the environment**
- **Harsh environmental conditions or temperature-sensitive environments**
- **Minimal or no maintenance**
- **Low noise levels**

General Features CNW

- SAir/water heat exchangers for wall mounting
- Indoor and Outdoor applications (with water and glycol)
- Internal and external installation
- Cooling capacity L35W10: from 750W to 25,000W
- Various power supplies available: 115Vac, 230Vac, 400/460Vac, 24Vdc
- Available versions:
  - control0: without control
  - control1: with mechanical thermostat and solenoid valve
  - control8: with electronic board, solenoid valve, and level indicator
- CE and UL Listed certifications
- Protection degree: IP55, Type12, Nema 4/4x

General Features EXW

- Air/water heat exchangers for roof mounting
- Indoor applications
- External installation
- Cooling capacity L35W10: 2,200W, 6,700W
- Power supply available: 230Vac
- Available versions: with electronic thermostat and solenoid valve
- CE certifications
- Protection degree: IP54



CNW 05

CODE	M.U.	CNW050031100000	CNW05U132000000		CNW05U130300000	
UL Listed		--	✓		✓	
Rated Voltage	V , ~	24Vdc	230,1		115,1	
Nominal Frequency	Hz	--	50	60	50	60
Total Cooling Capacity (L35W10)	200 l/h	1100	800	825	800	825
	400 l/h	1300	900	925	900	925
Absorbed power	W	10	20		21	
Current Consumption	A	0,4	0,14		0,26	
Operating pressure	bar	1...10	1...10		1...10	
Internal operating temp. min/max	°C	10...55	10...55		10...55	
Ambient operating temp. min/max	°C	1...70	1...70		1...70	
Supply water temperature	°C	≥1	≥1		≥1	
Protection degree	IP	55	55		55	
	Type	--	12		12	
Hydraulic connections	"	1/2''	1/2''		1/2''	
External sound pressure level	dB(A)	34	25		25	
Height (A)	mm	570	570		570	
Widht (B)	mm	280	280		280	
Depht (C)	mm	120	120		120	
Weight	kg	TBD	TBD		TBD	

CNW 10

CODE	M.U.	CNW100031100000	CNW10U132000000		CNW10U130300000	
UL Listed		--	✓		✓	
Rated Voltage	V , ~	24Vdc	230,1		115,1	
Nominal Frequency	Hz	--	50	60	50	60
Total Cooling Capacity (L35W10)	200 l/h	1450	1100	1150	1100	1150
	400 l/h	1750	1300	1350	1300	1350
Absorbed power	W	29	36		36	
Current Consumption	A	1,2	0,27		0,59	
Operating pressure	bar	1...10	1...10		1...10	
Internal operating temp. min/max	°C	10...50/55	10...50/55		10...50/55	
Ambient operating temp. min/max	°C	1...70	1...70		1...70	
Supply water temperature	°C	≥1	≥1		≥1	
Protection degree	IP	55	55		55	
	Type	--	12		12	
Hydraulic connections	"	1/2''	1/2''		1/2''	
External sound pressure level	dB(A)	35	32		32	
Height (A)	mm	570	570		570	
Widht (B)	mm	280	280		280	
Depht (C)	mm	120	120		120	
Weight	kg	7	7		7	

CNW 15

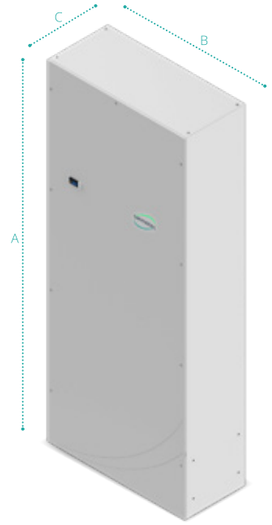
CODE	M.U.	CNW150031100000	CNW15U132000000		CNW15U130300000	
UL Listed		--	✓		✓	
Rated Voltage	V , ~	24Vdc	230,1		115,1	
Nominal Frequency	Hz	--	50	60	50	60
Total Cooling Capacity (L35W10)	200 l/h	1700	1500	1650	1500	1650
	400 l/h	2100	1800	1950	1800	1950
Absorbed power	W	24	26		27	
Current Consumption	A	1	0,15		0,23	
Operating pressure	bar	1...10	1...10		1...10	
Internal operating temp. min/max	°C	10...55	10...55		10...55	
Ambient operating temp. min/max	°C	1...70	1...70		1...70	
Supply water temperature	°C	≥1	≥1		≥1	
Protection degree	IP	55	55		55	
	Type	--	12		12	
Hydraulic connections	"	1/2''	1/2''		1/2''	
External sound pressure level	dB(A)	36	36		36	
Height (A)	mm	570	570		570	
Widht (B)	mm	280	280		280	
Depht (C)	mm	160	160		160	
Weight	kg	8,5	8,5		8,5	

CNW 30

CODE	M.U.	CNW30U132000000		CNW30U130300000		CNW300032800000	
UL Listed		✓		✓		--	
Rated Voltage	V , ~	230,1		115,1		400,2	460,2
Nominal Frequency	Hz	50	60	50	60	50	60
Total Cooling Capacity (L35W10)	400 l/h	3100	3125	3100	3125	3100	3125
	200 l/h	2400	2425	2400	2425	2400	2425
Absorbed power	W	116		108		116	
Current Consumption	A	0,48		0,9		0,2	
Operating pressure	bar	1...10		1...10		1...10	
Internal operating temp. min/max	°C	10...55		10...55		10...55	
Ambient operating temp. min/max	°C	1...70		1...70		1...70	
Supply water temperature	°C	≥1		≥1		≥1	
Protection degree	IP	55		55		55	
	Type	12		12		--	
Hydraulic connections	"	1/2''		1/2''		1/2''	
External sound pressure level	dB(A)	43		43		43	
Height (A)	mm	920		920		920	
Widht (B)	mm	400		400		400	
Depht (C)	mm	160		160		160	
Weight	kg	TBD		TBD		TBD	

CNW 50

CODE	M.U.	CNW50U132000000		CNW50U130300000		CNW500032800000	
UL Listed		✓		✓		--	
Rated Voltage	V , ~	230,1		115,1		400,2	460,2
Nominal Frequency	Hz	50	60	50	60	50	60
Total Cooling Capacity (L35W10)	400 l/h	5300		4600	4750	5300	
	1000 l/h	7300		6300	6450	7300	
Absorbed power	W	170		225		170	
Current Consumption	A	1,3		1,65		0,8	
Operating pressure	bar	1...10		1...10		1...10	
Internal operating temp. min/max	°C	10...55		10...55		10...55	
Ambient operating temp. min/max	°C	1...70		1...70		1...70	
Supply water temperature	°C	≥1		≥1		≥1	
Protection degree	IP	55		55		55	
	Type	12		12		--	
Hydraulic connections	"	1/2''		1/2''		1/2''	
External sound pressure level	dB(A)	47		40		47	
Height (A)	mm	1100		1100		1100	
Widht (B)	mm	500		500		500	
Depht (C)	mm	240		240		240	
Weight	kg	25		25		25	



CNW A0

CODE	M.U.	CNWA00032080000		CNWA00032880000	
UL Listed		--		--	
Rated Voltage	V , ~	230,1		400,2	460,2
Nominal Frequency	Hz	50	60	50	60
Total Cooling Capacity (L35W10)	1000 l/h	11500		11500	
	2000 l/h	14250		14250	
Absorbed power	W	338		338	
Current Consumption	A	2		1,3	
Operating pressure	bar	1...10		1...10	
Internal operating temp. min/max	°C	20...50		20...50	
Ambient operating temp. min/max	°C	1...70		1...70	
Supply water temperature	°C	≥1		≥1	
Protection degree	IP	55		55	
Hydraulic connections	"	3/4''		3/4''	
External sound pressure level	dB(A)	60		60	
Height (A)	mm	1600		1600	
Widht (B)	mm	590		590	
Depht (C)	mm	240		240	
Weight	kg	71		71	

CNW A5

CODE	M.U.	CNWA50032080000		CNWA50032880000	
UL Listed		--		--	
Rated Voltage	V , ~	230,1		400,2	460,2
Nominal Frequency	Hz	50	60	50	60
Total Cooling Capacity (L35W10)	2000 l/h	16000		16000	
	1500 l/h	15000		15000	
Absorbed power	W	161		161	
Current Consumption	A	1,2		0,7	
Operating pressure	bar	1...10		1...10	
Internal operating temp. min/max	°C	20...50		20...50	
Ambient operating temp. min/max	°C	1...70		1...70	
Supply water temperature	°C	≥1		≥1	
Protection degree	IP	55		55	
Hydraulic connections	"	3/4''		3/4''	
External sound pressure level	dB(A)	58		58	
Height (A)	mm	1900		1900	
Widht (B)	mm	790		790	
Depht (C)	mm	350		350	
Weight	kg	90		90	

CNW B5

CODE	M.U.	CNWB50032080000		CNWB50032880000	
UL Listed		--		--	
Rated Voltage	V , ~	230,1		400,2	460,2
Nominal Frequency	Hz	50	60	50	60
Total Cooling Capacity	2000 l/h	26000		26000	
(L35W10)	1500 l/h	23500		23500	
Absorbed power	W	366		366	
Current Consumption	A	2,3		1,5	
Operating pressure	bar	1...10		1...10	
Internal operating temp. min/max	°C	20...50		20...50	
Ambient operating temp. min/max	°C	1...70		1...70	
Supply water temperature	°C	≥1		≥1	
Protection degree	IP	55		55	
Hydraulic connections	"	3/4''		3/4''	
External sound pressure level	dB(A)	56		56	
Height (A)	mm	1900		1900	
Widht (B)	mm	790		790	
Depht (C)	mm	350		350	
Weight	kg	110		110	

Optional CNW

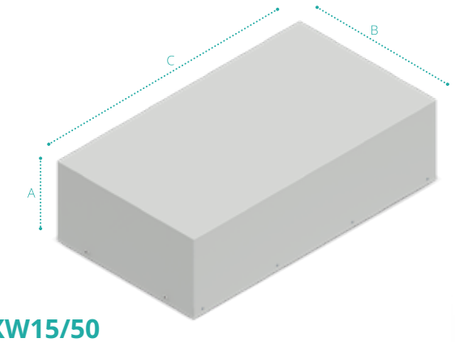
CODE	Special Color	stainless steel INOX AISI316	Control1 (Solenoid valve + mechanical thermostat	Control8 (Solenoid valve + electronic board + level switch(	Remote sensor	Remote display	Nema 4****
CNW05	OCAXNS06	OCAXI04	OCAEVT1	OCAEVB1*****	OCARESCNW*	OCARDCNW**	OCAN4CNW
CNW10	OCAXNS06	OCAXI04	OCAEVT1	OCAEVB1*****	OCARESCNW*	OCARDCNW**	OCAN4CNW
CNW15	OCAXNS06	OCAXI04	OCAEVT1	OCAEVB1*****	OCARESCNW*	OCARDCNW**	OCAN4CNW
CNW30	OCAXNS08	OCAXI05	OCAEVT2	OCAEVB2	OCARESCNW*	OCARDCNW**	OCAN4CNW
CNW50	OCAXNS10	OCAXI05	OCAEVT2	OCAEVB2	OCARESCNW*	OCARDCNW**	OCAN4CNW
CNWA0	OCAXNS10	--	--	STD	OCARESCNW	OCARDCNW***	--
CNWA5	OCAXNS11	--	--	STD	OCARESCNW	OCARDCNW***	--
CNWB5	OCAXNS11	--	--	STD	OCARESCNW	OCARDCNW***	--

* only for Control8 version
** only for version Control8, **needed for outdoor or Nema4/4x installations**
*** **needed for outdoor installations**
**** only UL version. Only color orange peel 7035. Nema4x with option Stainless Steel Housing AISI316. Version Control8 needed option remote display
***** Not available 24Vdc version

Accessories CNW

CODE	1/2" mini valves	1/2" hose connection	3/4" hose connection	Modbus serial port	Sequencing cable	Remote display
CNW05	ACAMV01CNW	ACAHC01CNW	--	ACASPM*	ACASEQ*	ACAKPD**
CNW10	ACAMV01CNW	ACAHC01CNW	--	ACASPM*	ACASEQ*	ACAKPD**
CNW15	ACAMV01CNW	ACAHC01CNW	--	ACASPM*	ACASEQ*	ACAKPD**
CNW30	ACAMV01CNW	ACAHC01CNW	--	ACASPM*	ACASEQ*	ACAKPD**
CNW50	ACAMV01CNW	ACAHC01CNW	--	ACASPM*	ACASEQ*	ACAKPD**
CNWA0	--	--	ACAHC02CNW	ACASPM	ACASEQ	ACAKPD***
CNWA5	--	--	ACAHC02CNW	ACASPM	ACASEQ	ACAKPD***
CNWB5	--	--	ACAHC02CNW	ACASPM	ACASEQ	ACAKPD***

* only for Control8 version
** only for version Control8 and option remote display, **needed for outdoor or Nema4/4x installations**
*** only for version with remote display **needed for outdoor installations**



EXW15/50

CODE		M.U.	EXW15H02207000		EXW50H02207000	
UL Listed			--		--	
Rated Voltage		V , ~	230 , 1		230 , 1	
Nominal Frequency		Hz	50	60	50	60
Cooling Capacity	ΔT=25°C	W	2200		6700	
Current Consumption		A	0,23	0,29	1,02	1,5
Absorbed fan power		W	52	65	260	340
Water Flow		l/h	150		860	
Max water pressure		kPa	1000		1000	
Water pressure drop		kPa	30		30	
Internal operating Temp.	min/max	°C	+10 / +65		+10 / +55	
Water connection diam.		"	1 / 2		1 / 2	
Internal circuit protection degree	CE	IP	54		54	
	UL	Type	--		--	
External soound pressure		dB(A)	45		45	
Height (A)		mm	189		255	
Width (B)		mm	772		905	
Depth (C)		mm	404		509	
Weigth		kg	30		39	

Optional EXW

CODE	Special Colour	Solenoid Valve + Thermostat	Stainles Steel AISI304 housing
EXW15H	OCAXNS08	STD	OCAXI05
EXW50H	OCAXNS10	STD	OCAXI06

Aertherm Indoor

XVA

Flexible Installation

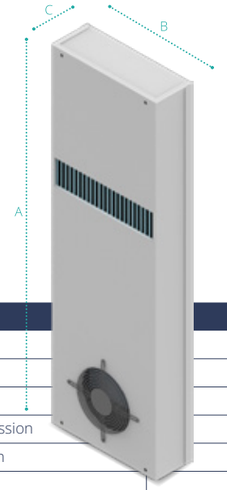
Thanks to their compact dimensions, XVA air/air heat exchangers can be installed in all electrical cabinets, even in applications where limited space is required in terms of width and depth. The industrial heat exchangers can be installed externally, but also internally, so as to eliminate any external clutter in the electrical cabinet.

Efficiency and Noise Reduction

XVA heat exchangers can be integrated with a mechanical thermostat to control the external fan. When the set point is reached, the fan is switched off, thus obtaining advantages in terms of efficiency (lower power consumption) and noise (no operation).

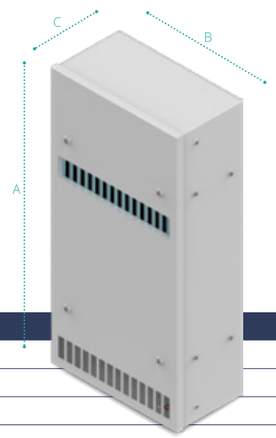
Main Features

- Installation: internal/external
- Patented heat exchange core made of aluminium, to ensure high efficiency with compact dimensions
- Specific heat transmission 16-85 W/k
- Certifications: CE, UL LIsted



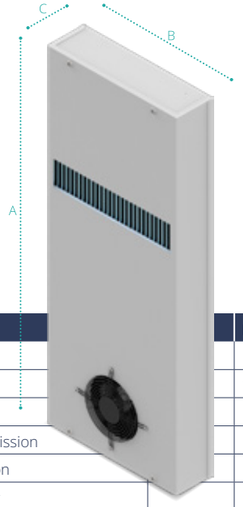
XVA35

CODE		M.U.	XVA3500320		XVA35T0120		XVA35T0220		XVA35U1320	XVA35U1303
UL Listed			--		--		--		✓	✓
Rated Voltage		V , ~	230 , 1		230 , 1		230 , 1		230 , 1	115 , 1
Nominal Frequency		Hz	50	60	50	60	50	60	50/60	60
Specific heat transmission		W/K	35		35		35		35	35
Current Consumption		A	0,46	0,58	0,46	0,58	0,46	0,58	0,8	1,1
Absorbed fan power		W	100	130	100	130	100	130	150	180
Internal operating Temp	min/max	°C	-5 / +55		-5 / +55		-5 / +55		-5 / +55	-5 / +55
Ambient temperature limit	min/max	°C	-5 / +55		-5 / +55		-5 / +55		-5 / +55	-5 / +55
Internal circuit protection degree	CE	IP	55		55		55		--	--
	UL	Type	--		--		--		12	12
External soound pressure		dB(A)	76		76		76		76	76
Height (A)		mm	780		780		780		780	780
Width (B)		mm	254		254		254		254	254
Depth (C)		mm	90		90		90		90	90
Installation			Internal / External		Internal		External		External	External
Machanic Thermostat			No		Yes		Yes		No	No
Weigth		kg	7,5		7,5		7,5		7,5	7,5



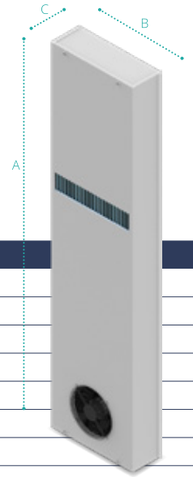
XVA16

CODE		M.U.	XVA1600320	XVA16U1303
UL Listed			--	✓
Rated Voltage		V , ~	230 , 1	115 , 1
Nominal Frequency		Hz	50/60	60
Specific heat transmission		W/K	16	16
Current Consumption		A	0,6	0,6
Absorbed fan power		W	64	40
Internal operating Temp	min/max	°C	-5 / +55	-5 / +55
Ambient temperature limit	min/max	°C	-5 / +55	-5 / +55
Internal circuit protection degree	CE	IP	54	--
	UL	Type	--	12
External soound pressure		dB(A)	58	58
Height (A)		mm	410	410
Width (B)		mm	204	204
Depth (C)		mm	109	109
Installation			Internal / External	External
Machanic Thermostat			No	No
Weigth		kg	4,6	4,6



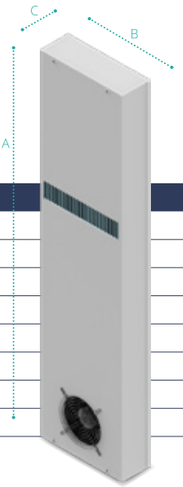
XVA50

CODE		M.U.	XVA5000320		XVA50T0120		XVA50T0220		XVA50U1320	XVA50U1303
UL Listed			--		--		--		✓	✓
Rated Voltage		V , ~	230 , 1		230 , 1		230 , 1		230 , 1	115 , 1
Nominal Frequency		Hz	50	60	50	60	50	60	50/60	60
Specific heat transmission		W/K	50		50		50		50	50
Current Consumption		A	0,46	0,58	0,46	0,58	0,46	0,58	0,8	1,4
Absorbed fan power		W	100	130	100	130	100	130	150	180
Internal operating Temp	min/max	°C	-5 / +55		-5 / +55		-5 / +55		-5 / +55	-5 / +55
Ambient temperature limit	min/max	°C	-5 / +55		-5 / +55		-5 / +55		-5 / +55	-5 / +55
Internal circuit protection degree	CE	IP	55		55		55		--	--
	UL	Type	--		--		--		12	12
External soound pressure		dB(A)	76		76		76		76	76
Height (A)		mm	780		780		780		780	780
Width (B)		mm	312		312		312		312	312
Depth (C)		mm	90		90		90		90	90
Installation			Internal / External		Internal		External		External	External
Machanic Thermostat			No		Yes		Yes		No	No
Weigth		kg	9,5		9,5		9,5		9,5	9,5



XVA80

CODE		M.U.	XVA8000320	XVA80U1320	XVA80U1303
UL Listed			--	✓	✓
Rated Voltage		V , ~	230 , 1	230 , 1	115 , 1
Nominal Frequency		Hz	50 / 60	50/60	60
Specific heat transmission		W/K	80	80	80
Current Consumption		A	0,72 / 0,96	1,3	2,3
Absorbed fan power		W	160 / 200	180	230
Internal operating Temp	min/max	°C	-5 / +55	-5 / +55	-5 / +55
Ambient temperature limit	min/max	°C	-5 / +55	-5 / +55	-5 / +55
Internal circuit protection degree	CE	IP	55	--	--
	UL	Type	--	12	12
External soound pressure		dB(A)	76	76	76
Height (A)		mm	1250	1250	1250
Width (B)		mm	311	311	311
Depth (C)		mm	108	108	108
Installation			Internal / External	External	External
Machanic Thermostat			No	No	No
Weigth		kg	20	20	20



XVA90

CODE		M.U.	XVA90T0120	XVA90T0220
UL Listed			--	--
Rated Voltage		V , ~	230 , 1	230 , 1
Nominal Frequency		Hz	50 / 60	50 / 60
Specific heat transmission		W/K	85	85
Current Consumption		A	1,1 / 1,5	1,1 / 1,5
Absorbed fan power		W	250 / 340	250 / 340
Internal operating Temp	min/max	°C	-5 / +55	-5 / +55
Ambient temperature limit	min/max	°C	-5 / +55	-5 / +55
Internal circuit protection degree	CE	IP	55	55
	UL	Type	--	--
External soound pressure		dB(A)	75	75
Height (A)		mm	1250	1250
Width (B)		mm	311	311
Depth (C)		mm	108	108
Installation			Internal	External
Machanic Thermostat			Yes	Yes
Weigth		kg	20	20

Optional XVA

CODE	Special Colour	Stainless Steel AISI304 housing
XVA16	OCAXNS06	OCAXI01
XVA35	OCAXNS03	OCAXI02
XVA50	OCAXNS03	OCAXI02
XVA80	OCAXNS01	OCAXI03
XVA90	OCAXNS01	OCAXI03

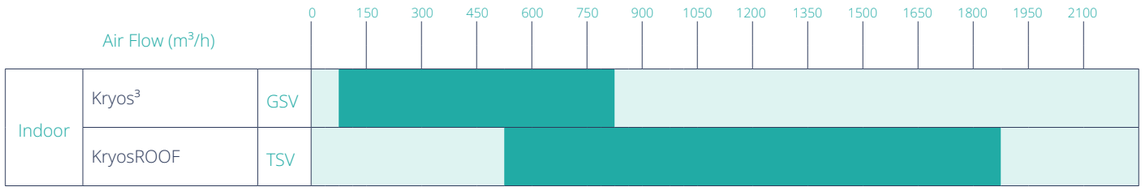
Industrial Ventilation for electrical panels

Wall and Roof Filter fans for electrical panels

A wall-mounted or roof-mounted fan draws in cold ambient air or exhausts warm air from the electrical panel. They provide simple and economical heat dissipation and offer a compact and efficient solution.

They are recommended if:

- the outside air has a lower temperature value than the inside air (approx. ΔT=10°C)
- a low cooling capacity is required
- little maintenance is required
- the ambient air is not excessively oily or dusty
- outside air and humidity can enter the cabinet



Kryos³

Filter fans for electrical panels
Application: Indoor

pag. 64

KryosROOF

Roof mounted fans for electrical panels
Application: Indoor

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Kryos³

Indoor

New design, unaltered quality

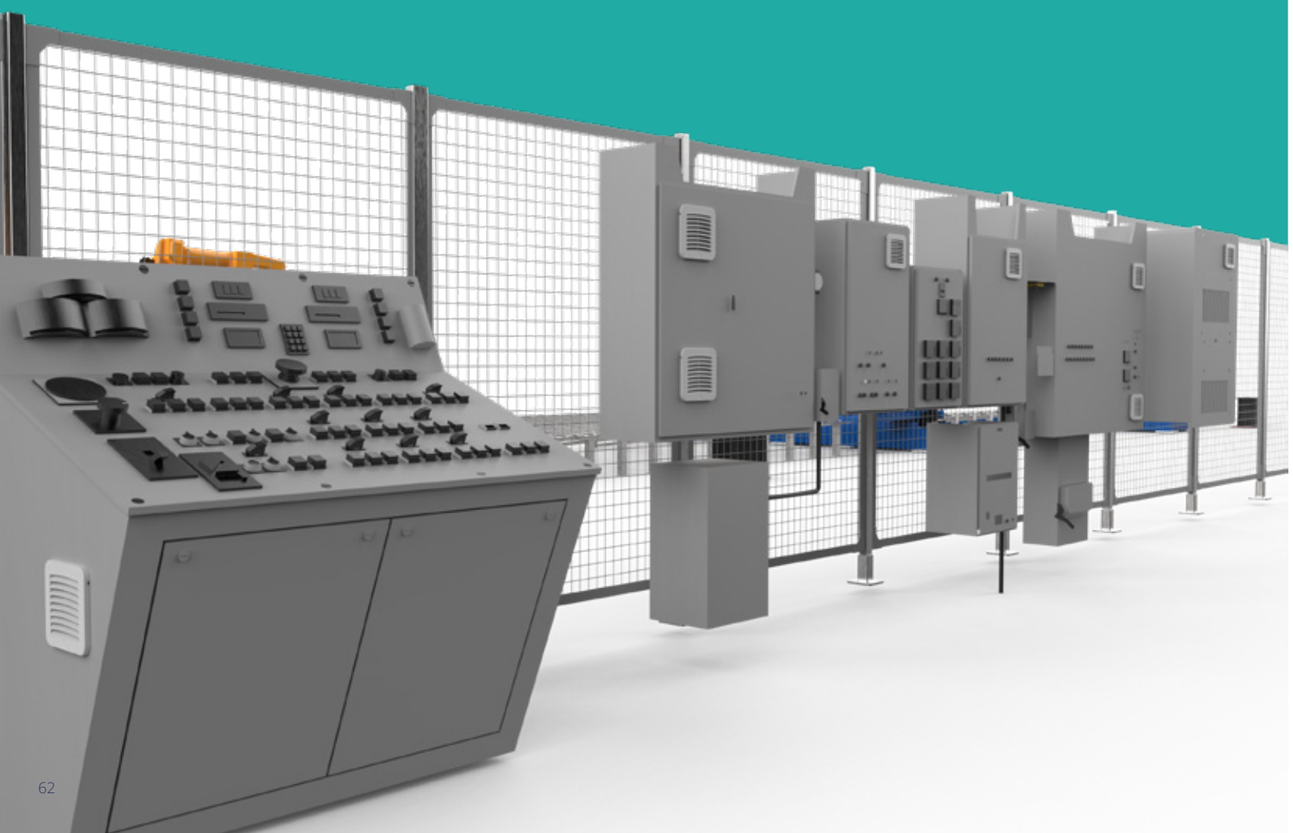
Kryos³ GS filters fans, for the ventilation of electrical enclosures, are the optimal solution when the ambient temperature is lower than the temperature inside the cabinet, and can be installed, thanks to their reduced depth, on various types of panels.
Together with a new modern design, **Kryos³** filter fans offer the same wide range of sizes and power supplies as previous generations, allowing you to choose the most suitable solution for your installation and geographical area.
With the **Kryos³** product range, **cosmotec** offers ventilation solutions that use ambient air to directly cool the enclosure while maintaining an adequate degree of protection from dust or water ingress (externally certified tests). The wide range of sizes and power supplies and the reduced depth allow the most suitable choice for the characteristics of the specific application.

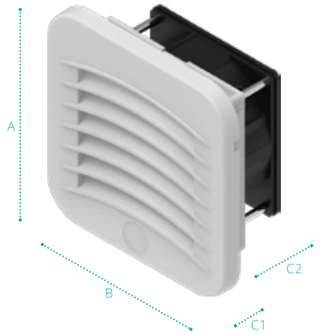
User Friendly Installation

Easy to install without the use of tools or screws, thanks to the clips on the rear grille, which provide an adequate seal between the grille and the cabinet. The filter fans can be installed on different types of enclosures with thicknesses between 0.8 and 3 mm, for CNx10 between 0.8 and 2 mm. Fixing with screws is possible for larger thicknesses; each article is provided with embossments on the rear grille.

Main Features

- Easy opening for filter replacement/cleaning
- Screwless fixing system
- In ABS BLEND (RAL7035)
- Air Flow: 35 - 850 m³/h
- Suction/pressure fan orientation
- Protection Degree IP54
- MTBF: 40000 hours
- Certifications: CE, UL Recognized, UL Listed FTTA/ FTTA7, CSA

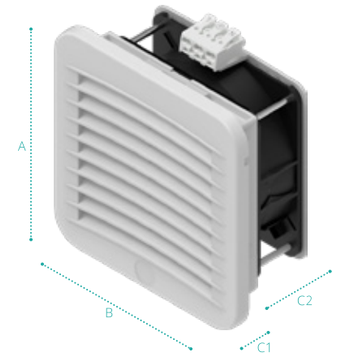




GSV10

CODE		M.U.	GSF10	GSV1000220		GSV1000203		GSV1000211
UL Recognized - UL Listed FTTA/FTTA7			✓	✓		✓		✓
Rated Voltage		V , ~	--	230 , 1		115 , 1		24VDC
Nominal Frequency		Hz	--	50	60	50	60	--
Fan Flow GSV		m³/h	--	35		35		50
Fan Flow GSV+GSF10/GSF15		m³/h	--	24/27		24/27		32/38
Absorbed Power		W	--	11	13	3,6	2,86	6,3
Absorbed Current		A	--	0,07	0,08	0,22	0,175	0,265
Internal operating Temp. min/max	CE	°C	--	-10 / +70		-10 / +70		-10 / +70
	UL			-10 / +55		-10 / +55		-10 / +55
Protection Degree	CE	IP	54	54		54		54
	UL	Type	12	12		12		12
External Sound pressure		dB(A)	--	33		33		53
Height (A)		mm	119	119		119		119
Width (B)		mm	119	119		119		119
Depth (C1-C2)		mm	10,3 - 18,2	10,3 - 60,2		10,3 - 47,2		10,3 - 47,2

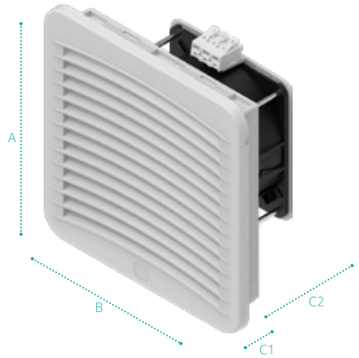
* No UL FTTA



GSV15

CODE		M.U.	GSF15	GSV1500220		GSV1500203		GSV1500211
UL Recognized - UL Listed FTTA/FTTA7			✓	✓		✓		✓
Rated Voltage		V , ~	--	230 , 1		115 , 1		24VDC
Nominal Frequency		Hz	--	50	60	50	60	--
Fan Flow GSV		m³/h	--	67		67		67
Fan Flow GSV+GSF15/GSF20		m³/h	--	50/58		50/58		50/58
Absorbed Power		W	--	22	22	22	25	8,1
Absorbed Current		A	--	0,14	0,14	0,26	0,3	0,335
Internal operating Temp. min/max	CE	°C	--	-10 / +70		-10 / +70		-10 / +70
	UL			-10 / +55		-10 / +55		-10 / +55
Protection Degree	CE	IP	54	54		54		54
	UL	Type	12	12		12		12
External Sound pressure		dB(A)	--	49		49		48
Height (A)		mm	152	152		152		152
Width (B)		mm	152	152		152		152
Depth (C1-C2)		mm	10,3 - 22,2	10,3 - 64,7		10,3 - 64,7		10,3 - 64,7

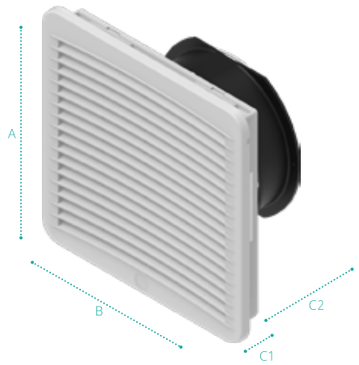
* No UL FTTA



GSV20

CODE		M.U.	GSF20	GSV2000220		GSV2000203		GSV2000211
UL Recognized - UL Listed FTTA/FTTA7			✓	✓		✓		✓
Rated Voltage		V , ~	--	230 , 1		115 , 1		24 VDC
Nominal Frequency		Hz	--	50	60	50	60	--
Fan Flow GSV		m^3/h	--	108		108		108
Fan Flow GSV+GSF20/GSF25		m^3/h	--	75/88		75/88		75/88
Absorbed Power		W	--	22	22	22	24,5	8,1
Absorbed Current		A	--	0,14	0,14	0,26	0,29	0,335
Internal operating Temp. min/max	CE	°C	--	-10 / +70		-10 / +70		-10 / +70
	UL			-10 / +55		-10 / +55		-10 / +55
Protection Degree	CE	IP	54	54		54		54
	UL	Type	12	12		12		12
External Sound pressure		dB(A)	--	49		49		48
Height (A)		mm	204	204		204		204
Width (B)		mm	204	204		204		204
Depth (C1-C2)		mm	10,3 - 23,2	10,3 - 87,7		10,3 - 87,7		10,3 - 87,7

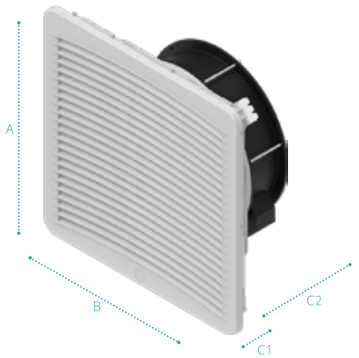
* No UL FTTA



GSV25

CODE		M.U.	GSF25	GSV2500220		GSV2500203		GSV2500211	GSV2501220		GSV2501203	
UL Recognized - UL Listed FTTA/FTTA7			✓	✓		✓		✓	✓		✓	
Rated Voltage		V , ~	--	230 , 1		115 , 1		24VDC	230 , 1		115 , 1	
Nominal Frequency		Hz	--	50	60	50	60	--	50	60	50	60
Fan Flow GSV		m^3/h	--	190		190		230	270		270	
Fan Flow GSV+GSF25/GSF30		m^3/h	--	130/160		130/160		190/210	200/220		200/220	
Absorbed Power		W	--	25	70	39	38	26,6	50	66	50	75
Absorbed Current		A	--	0,24	0,31	0,59	0,575	0,86	0,25	0,33	0,42	0,63
Internal operating Temp. min/max	CE	°C	--	-10 / +70		-10 / +70		-10 / +70	-10 / +70		-10 / +70	
	UL			-10 / +55		-10 / +55		-10 / +55	-10 / +55		-10 / +55	
Protection Degree	CE	IP	54	54		54		54	54		54	
	UL	Type	12	12		12		12	12		12	
External Sound pressure		dB(A)	--	55		55		59	62		62	
Height (A)		mm	250	250		250		250	250		250	
Width (B)		mm	250	250		250		250	250		250	
Depth (C1-C2)		mm	10,3 - 37,2	10,3 - 107,7		10,3 - 107,7		10,3 - 107,7	10,3 - 88,2		10,3 - 88,2	

* No UL FTTA



GSV30

CODE		M.U.	GSF30	GSV3000220		GSV3000203		GSV3001220		GSV3001203		GSV3002220		GSV30002203		GSV3002262	
UL Recognized - UL Listed FTTA/FTTA7			✓	✓		✓		✓		✓		✓		✓		✓	
Rated Voltage		V , ~	--	230 , 1		115, 1		230 , 1		115 , 1		230 , 1		115 , 1		400,3	460,3
Nominal Frequency		Hz	--	50	60	50	60	50	60	50	60	50	60	50	60	50	60
Fan Flow GSV		m^3/h	--	500		500		700		700		850		850		850	
Fan Flow GSV+GS-F30/2xGSF30		m^3/h	--	380/450		380/450		600/670		600/670		620/700		620/700		620/700	
Absorbed Power		W	--	50	63	50	72	115	173	125	170	142	182	115	196	115	204
Absorbed Current		A	--	0,25	0,315	0,42	0,61	0,51	0,77	1,1	1,5	0,63	0,81	1,02	1,24	0,23	0,355
Internal operating Temp. min/max	CE	°C	--	-10 / +60		-10 / +60		-10 / +55		-25 / +50		-25 / +55		-25 / +55		-25 / +60	
	UL			-10 / +55		-10 / +55		-10 / +55		-25 / +55		-25 / +55		-25 / +55		-25 / +55	
Protection Degree	CE	IP	54	54		54		54		54		54		54		54	
	UL	Type	12	12		12		12		12		12		12		12	
External Sound pressure		dB(A)	--	62		62		65		68		65		71		65	
Height (A)		mm	318	318		318		318		318		318		318		318	
Width (B)		mm	318	318		318		318		318		318		318		318	
Depth (C1-C2)		mm	10,3 - 23,2	10,3 - 128,7		10,3 - 128,7		10,3 - 128,2		10.3 - 128,7		10,3 - 150,2		10,3 - 150,2		10,3 - 150,2	

* No UL FTTA

Spare Air Filter

CODE	10 Filters
GSF10 - GSV10	AVAFAGS10
GSF15 - GSV15	AVAFAGS15
GSF20 - GSV20	AVAFAGS20
GSF25 - GSV25	AVAFAGS25
GSF30 - GSV30	AVAFAGS30

Features

- Material = chemical fibers
- Weight 200 g/m^2
- Thickness 14 mm
- Dust holding capacity 600g/m^2
- IP54

Additional Air Filter Protection Degree IP55

CODE	5 filters Package
GSF15-GSV15	AVAFLGS15
GSF20-GSV20	AVAFLGS20
GSF25-GSV25	AVAFLGS25
GSF30-GSV30	AVAFLGS30

Features

- Material = chemical fibers
- Weight 200 g/m^2
- Thickness 7 mm
- Dust holding capacity 597g/m^2

Installation technical notes in the manual

Hose-proof hood IP56 Protection Degree

CODE	1 Hose-proof hood	Dimensions (in)
GSF10 - GSV10	AVAFSGS10	231 x 150 x 30,7
GSF15 - GSV15	AVAFSGS15	246 x 176 x 45,7
GSF20 - GSV20	AVAFSGS20	331 x 233 x 45,7
GSF25 - GSV25	AVAFSGS25	392,5 x 282 x 75,7
GSF30 - GSV30	AVAFSGS30	482,5 x 350 x 100,7

Features

- Material = galvanised sheet
- Option = AISI304 Stainless Steel

KryosROOF

Indoor

New design, more flexibility

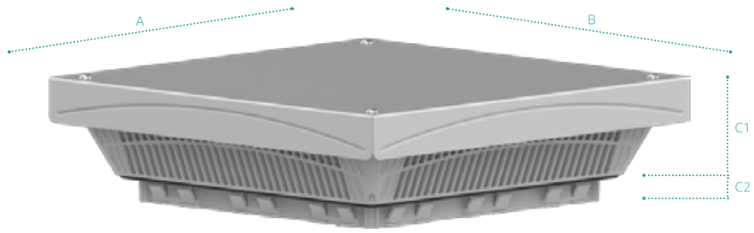
KryosRoof roof mounted fans are the ideal industrial ventilation solution for extracting warm air from the roof. Their compact dimensions allow them to be installed on various types of electrical panels, while the layout and fans ensure high flow rates and operating efficiency.
The TSF/TSV feature a new design, compact dimensions and the flexibility properties typical of **cosmotec** products.

Performance and Efficiency

The radial fans on **KryosROOF** provide high flow rates and heads to ensure the correct airflow within the cabinet. In addition, there is a high efficiency version with EC fans and an active control probe, supplied as standard, which adjusts the fan speed to reduce electricity consumption and ensure optimum air flow according to the temperatures in the electrical panel. Electrical consumption can already be reduced by 20/30% at maximum operating conditions.
Energy efficiency eliminates energy waste and generates savings that last. Rational use of energy and investment in energy-efficient technological solutions increase the profitability of operations and make them more competitive, modern and efficient. Improving the energy efficiency of production processes helps to reduce fixed production costs, increase the market value of the product and reduce environmental impact. **KryosROOF** extraction towers regulate the air flow optimally for each operating condition and heat load.

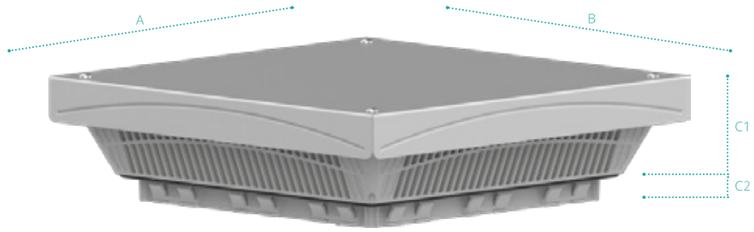
Main Features

- ABS Blend base and galvanised sheet metal cover
- Screwless fixing system
- Air Flow: 500...1870 m3/h
- Version without fan available
- Protection Degree: IP43/Type1 - IP54/Type12
- MTBF: 40000 hours
- RAdial fans with minimum pressure losses
- Certifications: CE, UL Recognized, UL Listed



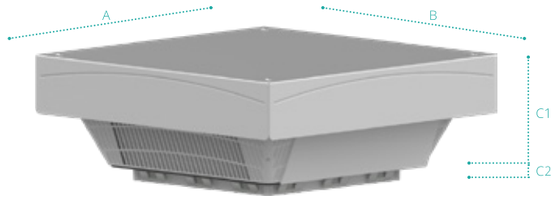
TSF/TSV19

CODE		M.U.	TSF19U0 20000000	TSF19U1 20000000	TSV19U0 22000000	TSV19U1 22000000	TSV19U0 20300000	TSV19U1 20300000
UL Recognized - UL Listed FTTA/FTTA7			✓	✓	✓	✓	✓	✓
Rated Voltage		V , ~	--	--	230,1	230,1	115,1	115,1
Nominal Frequency		Hz	--	--	50/60	50/60	60	60
Fan Flow TSV		m^3/h	--	--	540/575	500/535	555	515
Fan Flow TSV+GSF30		m^3/h	--	--	460/495	420/455	475	435
Absorbed Power		W	--	--	52/65	52/65	70	70
Absorbed Current		A	--	--	0,21/0,29	0,21/0,29	0,61	0,61
Internal operating Temp.	min/max	°C	-40/+60	-40/+60	-25/+55	-25/+55	-25/+55	-25/+55
Protection Degree	CE	IP	43	54	43	54	43	54
	UL	Type	1	12	1	12	1	12
External Sound pressure		dB(A)	--	--	53	53	53	53
Height (A)		mm	395	395	395	395	395	395
Width (B)		mm	395	395	395	395	395	395
Depth (C)		mm	108	108	112	112	112	112



TSV22

CODE		M.U.	TSV22U0 22000000	TSV22U1 22000000	TSV2200 22010000	TSV2201 22010000	TSV22U0 20300000	TSV22U1 20300000
UL Recognized - UL Listed FTTA/FTTA7			✓	✓	--	--	✓	✓
Rated Voltage		V , ~	230,1	230,1	200...240,1	200...240,1	115,1	115,1
Nominal Frequency		Hz	50/60	50/60	50/60	50/60	60	60
Fan Flow TSV		m^3/h	800/810	715/725	925	840	785	710
Fan Flow TSV+GSF30		m^3/h	615/625	530/540	720	635	600	525
Absorbed Power		W	88/116	88/116	85	85	108	108
Absorbed Current		A	0,37/0,49	0,37/0,49	0,7	0,7	0,9	0,9
Internal operating Temp.	min/max	°C	-25/+55	-25/+55	-25/+55	-25/+55	-25/+55	-25/+55
Protection Degree	CE	IP	43	54	43	54	43	54
	UL	Type	1	12	--	--	1	12
External Sound pressure		dB(A)	54	52	56	54	54	52
Height (A)		mm	395	395	395	395	395	395
Width (B)		mm	395	395	395	395	395	395
Depth (C)		mm	112	112	112	112	112	112



TSF/TSV25

CODE		M.U.	TSF25U0 20000000	TSF25U1 20000000	TSV25U0 22000000	TSV25U1 22000000	TSV25U0 20300000	TSV25U1 20300000
UL Recognized - UL Listed FTTA/FTTA7			✓	✓	✓	✓	✓	✓
Rated Voltage		V , ~	--	--	230,1	230,1	115,1	115,1
Nominal Frequency		Hz	--	--	50/60	50/60	60	60
Fan Flow TSV		m³/h	--	--	1425/1520	1365/1480	1470	1420
Fan Flow TSV+2xGSF30		m³/h	--	--	1310/1405	1250/1365	1355	1305
Absorbed Power		W	--	--	230/340	230/340	300	300
Absorbed Current		A	--	--	0,85/1,15	0,85/1,15	2,5	2,5
Internal operating Temp.	min/max	°C	-40/+60	-40/+60	-25/+55	-25/+55	-25/+55	-25/+55
Protection Degree	CE	IP	43	54	43	54	43	54
	UL	Type	1	12	1	12	1	12
External Sound pressure		dB(A)	--	--	63	62	63	62
Height (A)		mm	490	490	490	490	490	490
Width (B)		mm	490	490	490	490	490	490
Depth (C)		mm	188	188	191	191	191	191

TSV35

CODE		M.U.	TSV35U0 22000000	TSV35U1 22000000	TSV3500 22010000	TSV3501 22010000
UL Recognized - UL Listed FTTA/FTTA7			✓	✓	--	--
Rated Voltage		V , ~	230,1	230,1	200...240,1	200...240,1
Nominal Frequency		Hz	50/60	50/60	50/60	50/60
Fan Flow TSV		m³/h	1870	1700	1870	1700
Fan Flow TSV+3xGSF30		m³/h	1520	1350	1520	1350
Absorbed Power		W	168	168	168	168
Absorbed Current		A	1,4/1,4	1,4/1,4	1,4	1,4
Internal operating Temp.	min/max	°C	-25/+55	-25/+55	-25/+55	-25/+55
Protection Degree	CE	IP	43	54	43	54
	UL	Type	1	12	--	--
External Sound pressure		dB(A)	57	57	57	57
Height (A)		mm	490	490	490	490
Width (B)		mm	490	490	490	490
Depth (C)		mm	191	191	191	191

Optional KryosROOF TSV

CODE	Special Colour	Stainless Steel 316 housing
TSF/TSV19	OCAXNS12 (1)	AVAIN01 (1)
TSF/TSV22	OCAXNS12 (1)	AVAIN01 (1)
TSF/TSV25	OCAXNS12 (1)	AVAIN02 (1)
TSF/TSV35	OCAXNS12 (1)	AVAIN02 (1)

(1) Only Cover

Heaters

Heaters are useful to avoid too much condensate water into the switchgear or an excessively low temperature. The heaters are made of aluminum to maximize heat transfer and utilize PTC heating elements.

- Suitable for installation on 35mm DIN rails,
- With fan in TH version
- To be used in combination with a thermostat or hygrostat
- Certifications: CE

CODE	M.U.	EH032	EH061	FH101	FH151	TH150	TH300	TH450	TH600
Heating capacity	W	30	60	100	150	150	300	450	600
Power Supply	V	110 - 230	110 - 230	110 - 230	110 - 230	230	110 - 230	110 - 230	110 - 230
Max Current	A	1,0 - 1,5	1,0 - 1,5	3,0 - 3,5	5,0 - 6,0	5,0 - 6,0	8,0 - 10,0	8,0 - 10,0	9,0 - 12,0
Fuse		2	2	2	4	4	4	4	6
Dimensions	mm	85x69x39	95x69x39	134x62x87	170x62x87	145x41x51	115x80x96	140x80x96	140x80x96
Weight	kg	0,2	0,3	0,55	0,7	0,5	0,65	0,75	0,9
Connection Type		spring terminal	spring terminal	spring terminal	spring terminal	terminal board	spring terminal	spring terminal	spring terminal

Thermostats

Devices for cabinet temperature control, with DIN bar installation.

TMF (blue setting screw) = with normally open contact. It can be used for signalling temperature alarms or for controlling ventilation systems.

TMC (red setting screw) = with normally closed contact. Can be used either as an alarm signal or to control heating or anti-condensation heaters.

TEM = to be electrically powered, differs from the previous ones in that it has changeover contacts, a very low tripping differential or hysteresis.

Certifications: CE

CODE	M.U.	TMC	TMF	TEM
Temperature Range	C°	-10 / +80	-10 / +80	+5 / +60
Power Supply	V	110 - 230	110 - 230	230
Dimensions	mm	71 x 35 x 47	71 x 35 x 47	65 x 50 x 61
Switching contact resistive load opening/closing	A	10	10	10 / 5
Accuracy	°C	± 3	± 3	± 1
Thermal Gradient	°C	1	1	1
ON/OFF Differential temperature	K	- 3	- 3	0,5
Contacts	n°	2	2	3
Contacts Position	-	NC	NO	NC / NO
Protection Degree	IP	20	20	20
Weight	g	36	36	100
Electrical Connections	n x Ø	2 x 2,5 mm	2 x 2,5 mm	4 x 2,5 mm
Fixing system	-	DIN 35/15	DIN 35/15	DIN 35

cosmotec
your cooling solutions

STULZ S.p.A.
Via E.Torricelli 3
37067 Valeggio sul Mincio (VR)
Tel. +39 045.6331600
Fax +39 045.6331635

www.cosmotec.it
info@cosmotec-cooling.com