cosmotec

your cooling solutions



CNW
Watherm

Air/Water Heat Exchangers for Wall Mounting

The ideal solution for centralized cooling



Watherm CNW, ideal for applications requiring:

- High cooling capacity with compact dimensions
- No heat emission into the environment
- Aggressive ambient conditions or environments affected by temperature
- Little to no maintenance required
- Low noise levels

The **CNW exchanger is ideal for cooling electrical enclosures** in processes where **chilled water is already available** from a centralized system or from a user line (e.g., press, laser).
They can also be **connected to water cooling circuits supplied by cosmotec chillers**, becoming a **particularly advantageous solution when multiple cooling units are installed on a single system**.



Products aligned with current regulations

CNW exchangers comply with the strict EN1397 standard for calculating cooling performance and are already equipped with fans that meet Regulation 2024/1834. Lastly, by using chilled water, they are a valid alternative to the production and installation limitations affecting air conditioners as defined by F-GAS Regulation 573/2024, effective from 2027.

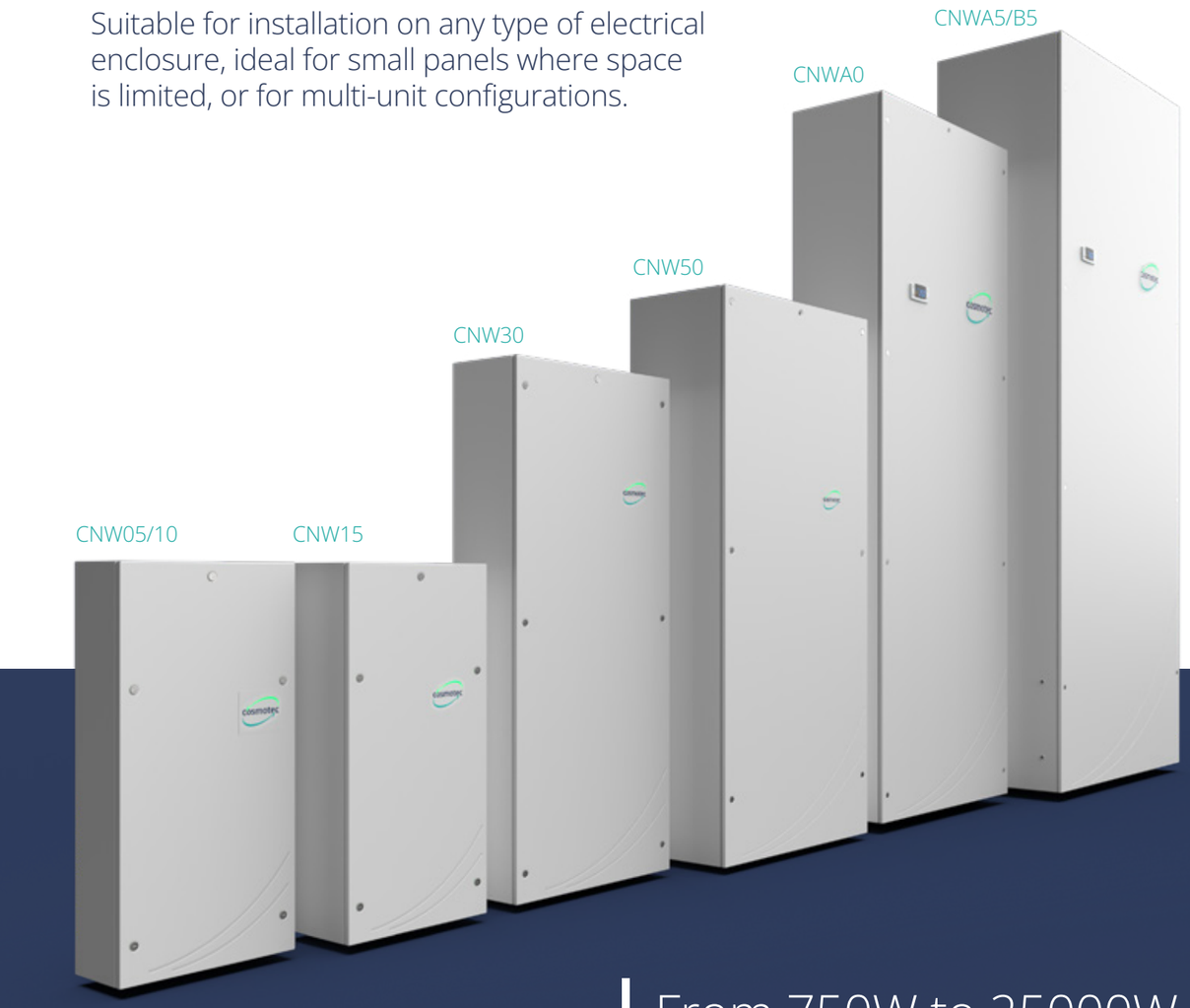
F-GAS ✓
EN1397 ✓

Flexibility

High performance and compact dimensions.

For electrical enclosures with depths from 300mm to 800mm

Suitable for installation on any type of electrical enclosure, ideal for small panels where space is limited, or for multi-unit configurations.



From 750W to 25000W

Thanks to the wide range of cooling capacities, they meet all power requirements
the broadest range on the market!

Indoor and outdoor installation

The ability to install the units **either inside or outside the electrical panel** makes Watherm exchangers ideal for applications that require **minimal or no external footprint** from the enclosure.

External



Internal



3 versions

CNW exchangers are available in 3 versions:

Control[0]

Without any control
in applications where it is not required and water flows continuously through the system



Control[1]

With internal temperature control via mechanical thermostat
which manages the opening and closing of the solenoid valve.



Control[8]

Equipped with electronic board, solenoid valve, and leakage sensor
allowing precise internal temperature control and many additional functions that enhance user reliability, ease of use, and overall efficiency. (Standard on models CNWA0/A5/B5)



Suitable for all temperature conditions.

CNW exchangers can operate within an ambient temperature range from +1°C to +70°C, making them suitable even for extreme applications. Water temperature can go as low as +1°C without the use of glycol, offering great operational flexibility. The internal air temperature inside the electrical enclosure can vary within a range of +10°C to +55°C.



Watherm air/water heat exchangers are not only suitable for all typical **indoor industrial applications**, but are also designed to operate in **outdoor environments** (when using water and glycol), ensuring **maximum versatility and reliability**.

Multiple Power Supply Options

The entire range offers various power supply configurations to meet all market requirements:
24Vdc, 230Vac, 115Vac and 400/460Vac

Beyond Standard

Options and accessories make **cosmotec** air/water heat exchangers adaptable to any customer need, whether related to cabinet type (e.g., color, stainless steel) or hydraulic connections.

c UL us LISTED

UL Certification

A large part of the range is UL Listed certified for the U.S. and Canadian markets, ensuring significant savings in time and cost for subsequent approvals and easier market access, while also helping to avoid potential customs issues.



Reliability

High Degree of Protection.

IP55, Type 12/4/4x

the exchangers are suitable for operation in all industrial environments, ensuring the appropriate level of protection even in critical applications, such as aggressive environments or the Food & Beverage sector



Efficiency

Energy and cost savings

For the version with electronic board, by activating the SEM or SEM2 functions, the fan operation is limited when the internal temperature of the electrical panel is low, resulting in a reduction or complete elimination of power consumption.



The introduction of the Control[8] version, with an electronic board, brings many advantages:

- Unit status and alarm display
- Presence of a changeover alarm contact (NO/NC) and a remote/open-door contact
- Leak detection in case of excessive condensation, loss of tightness, or hydraulic circuit pipe breakage
- Continuous remote monitoring via RS485 serial port and Modbus RTU protocol
- Elimination of hot spots with the ability to read the internal temperature at a precise point inside the electrical panel via remote sensor
- System redundancy option through sequencing function and communication between two exchangers (alternating operation or backup in case of threshold temperature exceedance or unit failure)

Ease of Installation and Use

Watherm exchangers offer solutions to speed up installation operations and make usage simpler.

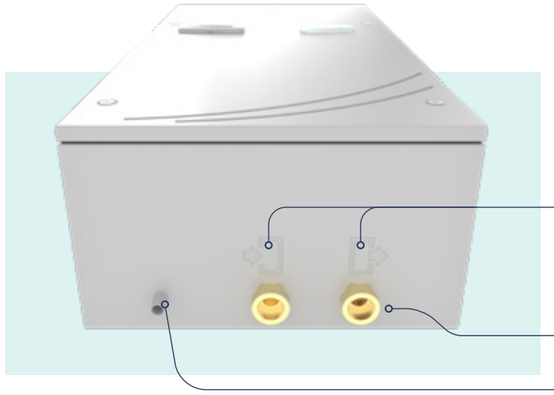
The CNW units include:



- **Two inserts as fixing points** to facilitate unit positioning
- **Mechanical thermostat**, if included, mounted on the back and directly accessible without removing the panel
- **Quick connections via connector**, for both main power supply and, if present, signal connections and voltage change (400V-460V)



- **Easy maintenance and component inspection** by simply removing the front panel.
- **Compact dimensions and new drilling templates** allow installation on cabinets with depths of 300/400/500/600/800mm.
- **Templates are compatible between CNW05/10/15 and Compact Protherm CNx04/07/10 air conditioners,** for applications that may require either solution.



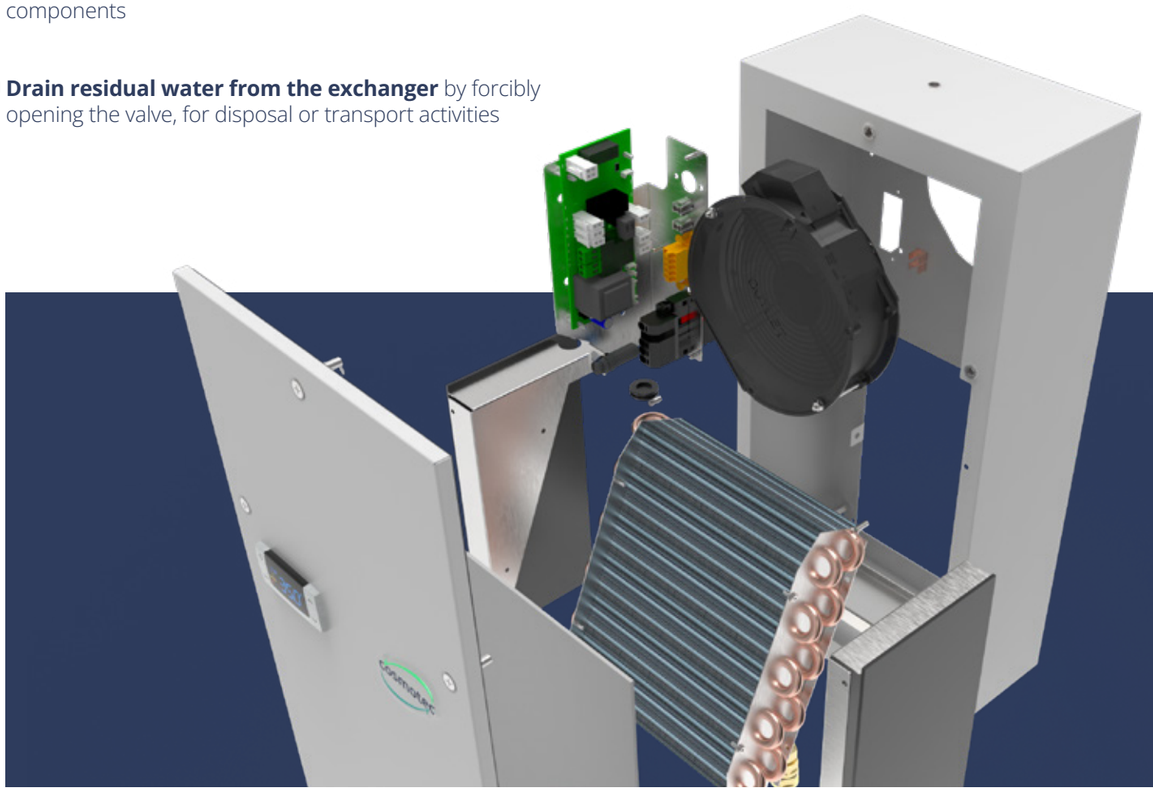
- **Various types of hydraulic connections available,** including GAS F and NPT threading (if UL), or via hose port or mini-valve (available as accessories).
- **IN-OUT icons engraved directly on the surface** to ensure clarity and prevent errors.



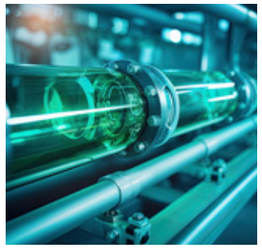
- **IN-OUT H2O**
- **Condensate drain**

In the version with electronic board, it is also possible to:

- **View and modify parameters** directly via the display
- **Switch parameter settings from °C to °F**
- **Activate the test mode** function during unit start-up activities to verify correct operation of components
- **Drain residual water from the exchanger** by forcibly opening the valve, for disposal or transport activities



Applications



Hydrogen



Machine Tools



Automotive/ E-Mobility



Energy Storage



Food & Beverage



Plastic



Chemical/ Pharmaceutical



Printing

Application Examples

Chemical Companies

Chemical companies or those using substances (solvents, powders) in their production processes, or companies operating in high-temperature environments, often work in extremely critical and/or corrosive conditions. This creates the need for cooling systems suitable for these types of environments. The air/water heat exchanger is ideal to meet these demands, ensuring maximum reliability and virtually eliminating the need for maintenance activities. Since the water circuit is isolated from the environment, the type and temperature of the air do not affect the unit's operation. The high degree of protection of the exchanger ensures reliable protection of the electrical enclosure.



Technical Features

- Air/Water Heat Exchangers for Wall Mounting
- Indoor and Outdoor Applications (with water and glycol)
- **Indoor and Outdoor Installation**
- Cooling Capacity: from 750W to 25,000W
- Various power supplies available: 115VAC, 230VAC, 400/460VAC, 24VDC
- Available Versions:
  - **Control^{0}**, without control
  - **Control^{1}**, with mechanical thermostat and solenoid valve
  - **Control^{8}**, with electronic board and display, solenoid valve, and level indicator
- **CE** and **UL Listed** Certifications
- Protection Degree **IP55, Type12/4/4x**
- Various **options and accessories available**

Technical data

	CNW05	CNW10	CNW15	CNW30	CNW50	CNWA0	CNWA5	CNWB5
Power Supplies	230,1,50/60 115,1,50/60 24Vdc			230,1,50/60 115,1,50/60 400,2,50 460,2,60		230,1,50/60 400,2,50 460,2,60		
Capacity (W)	800	1100	1500	3100	5100	14750	16000	26000
Height (mm)	570	570	570	920	1100	1600	1900	1900
Width (mm)	280	280	280	400	500	590	790	790
Depth (mm)	120	120	160	160	240	240	350	350

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