

TREF CW

CHILLED WATER AIR CONDITIONERS FOR DATA CENTERS



| | | 300 | 380 | 450 | 550 | 650 | 750 | 890 | 1090 | 1200 | 1500 | 1800 | 2100 | |
|---|------|---------------|------|---------------|------|---------------|------|---------------|-------|---------------|-------|-----------------------|-----------------------|-------|
| Chilled water 7/12°C; Inlet air condition 24°C - 50% r.h. | | | | | | | | | | | | | | |
| Total cooling capacity | kW | 26.2 | 40.3 | 48 | 54 | 71 | 81 | 93 | 110 | 125 | 151 | 165 | 232 | |
| SHR | - | 0.94 | 0.80 | 0.81 | 0.77 | 0.83 | 0.79 | 0.80 | 0.76 | 0.77 | 0.78 | 0.75 | 0.75 | |
| EER | - | 20.1 | 31.0 | 34.2 | 33.4 | 28.4 | 31.2 | 25.9 | 28.8 | 32.2 | 40.7 | 43.5 | 40.7 | |
| Chilled water 10/15°C; Inlet air condition 30°C - 35% r.h. | | | | | | | | | | | | | | |
| Total cooling capacity | kW | 31.3 | 42.1 | 48.2 | 51.1 | 71.9 | 78.7 | 92.6 | 104.2 | 115.5 | 138.9 | 154.5 | 216.8 | |
| SHR | - | 1.00 | 0.98 | 1.00 | 0.99 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.96 | 0.95 | |
| EER | - | 24.1 | 32.4 | 34.4 | 31.9 | 28.8 | 30.3 | 25.7 | 27.4 | 29.6 | 37.5 | 40.7 | 38.0 | |
| Chilled water 20/26°C; Inlet air condition 35°C - 30% r.h. | | | | | | | | | | | | | | |
| Total cooling capacity | kW | 19.7 | 28.2 | 31.9 | 34.9 | 47.5 | 53.7 | 62.5 | 72.4 | 80.4 | 96.5 | 104.2 | 144.9 | |
| SHR | - | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| EER | - | 15.2 | 21.7 | 22.8 | 21.8 | 19.0 | 20.7 | 17.4 | 19.1 | 20.6 | 26.1 | 27.4 | 25.4 | |
| Air flow rate | m³/h | 7450 | | 9120 | | 14550 | | 18020 | | 21400 | | 26200 | | 36120 |
| Fan absorbed power | kW | 1.3 | 1.3 | 1.4 | 1.6 | 2.5 | 2.6 | 3.6 | 3.8 | 3.9 | 3.7 | 3.8 | 5.7 | |
| Fan absorbed current | A | 2.0 | 2.0 | 2.3 | 2.5 | 4.0 | 4.2 | 5.7 | 6.2 | 6.2 | 5.9 | 6.0 | 9.1 | |
| Dimensions [L x H x D]* | mm | 1010x1998x805 | | 1270x1998x805 | | 1760x1998x805 | | 2020x1998x805 | | 2510x1998x805 | | 2510x 1998x 950 | 3160x 1998x 950 | |

Also available with 60 Hz power supply

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TREF CW



26 - 232 kW

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CHILLED WATER AIR CONDITIONERS

FOR DATA CENTERS

FINNED PACK EXCHANGER WITH HYDROPHILIC TREATMENT



All models in the **TREF CW** range feature heat exchange coils with **hydrophilic coating**. This special coating - together with adequate adjustment of air through-flow speeds - helps condensate collection during the dehumidification process, avoiding dripping on the inside and outside of the unit.

SCHEDULED MAINTENANCE MADE EASIER



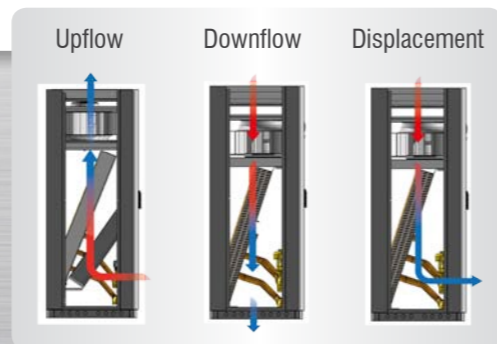
The unit has been painstakingly designed to ensure **front access** to components even with the unit running. These aspects make routine maintenance easier in full compliance with safety standards.

VENTILATION EC 2.0



The use of standard-equipment **EC fans** across the whole range - designed to adjust the air flow according to the thermal load - ensures an efficient use of electricity allocated for ventilation purposes, with a positive impact on the system PUE. Speed adjustment is performed via MODBUS communication, which guarantees an extended adjustment range and introduces the "emergency speed" function. This function allows the fan to operate even when the microprocessor is offline.

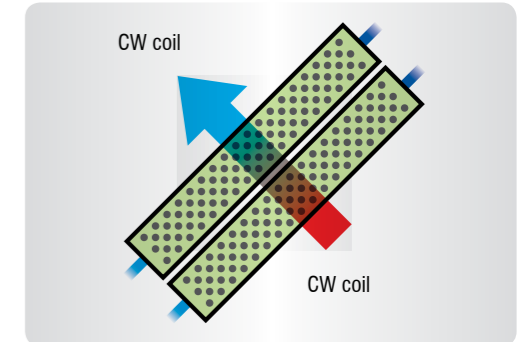
DIFFERENT CONFIGURATIONS OF THE AIR FLOW



TREF CW series perimeter units are part of the new range of chilled-water units specifically designed for technological environments requiring a reduced footprint but with unchanged delivered cooling capacity. A thorough CFD (computational fluid dynamics) analysis has allowed every last construction detail to be designed with the utmost care to minimise air pressure drops and, therefore, fan power consumption. The unit design allows installation and maintenance operations to be performed unhindered right from the unit front section.

HIGHEST REDUNDANCY AVAILABLE

If uninterrupted operation of the unit is required to ensure protection against failures, the **TREF CW** range can provide full **hydraulic circuit redundancy**. A dual coil and a dual control valve will keep server rooms cool even when one of the two circuits fails (chilled water is required in at least 1 of the 2 circuits available).



ACCURATE ADJUSTMENT WITH DIFFERENT TYPES OF VALVES

The control valve fitted with a 0-10V servomotor (standard across the whole range) can be selected for 2-way (variable flow rate system is required) or 3-way execution. Other versions available are fitted with a spring return servomotor or are pressure-independent (i.e., adjustment is independent of pressure available). The accurate flow control performance delivered by this type of valves guarantees adjustment accuracy while maintaining the balance of the water flow within the hydronic system. The accurate flow control performance delivered by this type of valves guarantees adjustment accuracy while maintaining the balance of the water flow within the hydronic system.



- » Double power supply with automatic switch (on request)
- » Fan speed modulation based on thermal load (constant ΔT)
- » Double panelling (front doors only or full panelling on request)
- » Fan speed modulation based on air flow demand (constant ΔT)
- » Stainless steel condensate drain pan
- » Humidify/de-humidify feature
- » Post-heating systems:
 - with electrical heating elements
 - with hot water coil
- » Instant reading of refrigerating capacity delivered (feature available on request)