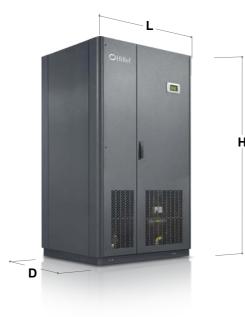


TREF DX

CONDITIONERS FOR DATA CENTERS

WITH DIRECT EXPANSION



Also available with 60 Hz power supply

| | | Inlet air 24°C - 50% r.h.; Condensing temperature 45°C | | | | | | | | | | | | | | | | | |
|---------------------------|------|--|------|-------------------------|-------------------------|-------------------------|-------------------------|-------|-------------------|-------|-------|----------------------|-------|-------------------|-------|-------|----------------------|-------|-------------------------|
| Total refrigerating power | kW | 23.9 | 26.8 | 28.1 | 31.9 | 36.5 | 35.1 | 41.1 | 42.9 | 45.9 | 51.3 | 60.6 | 66.4 | 68.3 | 79.1 | 88.0 | 92.7 | 103.9 | 133.2 |
| SHR | - | 1.0 | 0.9 | 1.0 | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 0.8 |
| Refrigeration cycle EER | - | 4.4 | 4.5 | 4.9 | 4.5 | 4.8 | 4.6 | 4.6 | 4.3 | 4.3 | 4.3 | 4.3 | 4.2 | 4.3 | 4.4 | 4.4 | 4.6 | 4.6 | 4.2 |
| | | Inlet air 30°C - 35% r.h.; Condensing temperature 45°C | | | | | | | | | | | | | | | | | |
| Total refrigerating power | kW | 27.2 | 29.1 | 30.8 | 34.3 | 42.8 | 37.5 | 47.2 | 47.1 | 50.5 | 55.2 | 65.2 | 70.8 | 74.3 | 83.7 | 93.6 | 100.2 | 112.3 | 142.2 |
| SHR | - | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Refrigeration cycle EER | - | 5.1 | 4.8 | 5.4 | 4.8 | 5.7 | 4.9 | 5.3 | 4.7 | 4.7 | 4.6 | 4.6 | 4.5 | 4.7 | 4.5 | 4.7 | 5.0 | 5.0 | 4.5 |
| Air flow rate | m³/h | 6800 | 6800 | 12950 | 7280 | 12950 | 7280 | 12950 | 12950 | 12950 | 12950 | 14150 | 14150 | 19415 | 19415 | 19415 | 21500 | 21500 | 24000 |
| Total absorbed power | kW | 6.4 | 7.0 | 7.6 | 8.4 | 9.5 | 8.9 | 10.9 | 11.8 | 12.7 | 13.9 | 16.8 | 18.3 | 18.7 | 21 | 22.9 | 23.9 | 26.3 | 34.5 |
| Total absorbed power | А | 10.3 | 11.3 | 12.3 | 13.5 | 15.3 | 14.2 | 17.5 | 19 | 20.4 | 22.3 | 27 | 29.4 | 30.2 | 33.8 | 36.9 | 38.2 | 42.2 | 55.3 |
| Dimensions [L x H x D]* | mm | 1010 x 1998 x 805 | | 1760 x 1998 x 805 | 1280 x 1998 x 805 | 1760 x 1998 x 805 | 1280 x 1998 x 805 | 1 | 1760 x 1998 x 805 | | | 2030 x 1998 x 805 | | 2510 x 1998 x 805 | | | 2510 x 1998 x 950 | | 3160 x 1998 x 950 |

*For the Displacement version H = 2248 mm





HIREF S.p.A. Viale Spagna, 31/33 35020 Tribano (PD) I Tel + 39 049 95885

35020 Tribano (PD) Italy Tel. +39 049 9588511 Fax +39 049 9588522 e-mail: info@hiref.it www.hiref.it HiRef S.p.A reserves the right, at any time, to introduce any necessary changes and improvements in its products without prior notice.

Reproduction, even partial, of this catalogue is forbidden without a written permission from HiRef S.p.A.

© Copyright HiRef S.p.A. 2019

0201 0251 0272 0281 0302 0311 0362 0401 0422 0452 0532 0592 0602 0692 0762 0852 1002 1204



HF65000292



CONDITIONERS FOR DATA CENTERS WITH DIRECT EXPANSION





27 - 142 kW



TREF DX

CONDITIONERS FOR DATA CENTERS DIRECT EXPANSION

VERSATILE AND FLEXIBLE RANGE

Thanks to different refrigerating configurations available, the **TREF DX** range is suitable for a number of applications in the field of Data Center air conditioning.

The direct expansion versions are sub-divided into the following types:



TREFA Air condensed units with remote condenser

Mains water condensed units (15°C) with TREFZ on board plate condenser

Dry-Cooler water condensed units with on board plate condenser.

SAFETY IN THE SERVER ROOM



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

the system overall electricity consumption with a positive impact on the Data Center PUE (Power Usage Effectiveness).

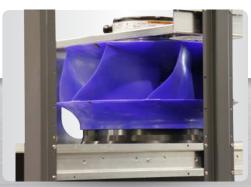
EASIER SCHEDULED MAINTENANCE





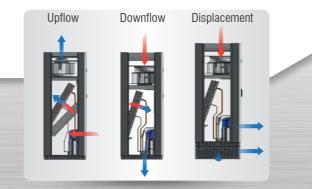
- » Refrigerant R410A. Also available with R134a
- » Also available in A2L and A2L ready versions
- » Re-heating systems:
 - · with electrical heating elements
 - with hot gas coil
 - with hot water coil
- » Stainless steel condensate drain pan
- » Latest-generation EC radial fans
- » Rotalock connectors to make refrigerating lines installation easier (air condensed versions)

MAXIMISED REDUCTION OF THE OVERALL O DIFFERENT CONFIGURATIONS **ELECTRICITY CONSUMPTION**



The use of standard-equipment EC fans across the whole range, designed to adjust the air flow according to the thermal load, allows an efficient use of the electricity for ventilation purposes, with a positive impact on the system PUE.

OF THE AIR FLOW



MAXIMISED REDUNDANCY AVAILABLE

If continuous unit operation is required for protection against faults. the TREF DX range is also available in a dual circuit design, allowing for server room refrigeration even in the event of either circuit failure.

The **TREF DX** series perimeter mounted units are direct expansion units designed to be installed in medium/large-sized premises such as server rooms and labs or for applications where accurate control of thermo-hygrometric parameters and round-theclock operation are required. The top priority for internal design and for the choice of components is energy efficiency, to optimise

G

OHiRef

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



- » Humidify/de-humidify feature
- » Standard air flow sensor
- » Air filter class G3
- » Air delivery/backflow temperature sensors
- » Compressor enclosure separated from the air flow to prevent refrigerating capacity loss
- » Machine on-board control microprocessor