

LHX+ 45 In-Rack Air-to-Water Cooler



CONNECT AND PROTECT

Smart Precision Cooling for edge applications

The **nVent SCHROFF LHX+ 45 In-Rack** chilled water cooler is designed to manage the cooling requirements of mission critical equipment. The cooling system is integrated into a Varistar CP mobile frame for ideal side by side connection to Varistar CP racks.

The cooler comes with an integrated front and rear plenum for cold and hot air respectively. This allows creation of self-contained rows of IP55 protected racks.

The integrated fans move the warm exhaust air from the servers through an air to water heat exchanger and the heat is transferred to a water circuit. The air is then provided into the front plenum towards the equipment. The units can be scaled optimally to suit individual packaging density and redundancy requirements.

FEATURES

- Frame and panels with IP55 gaskets towards ambient, IP10 towards attached racks
- Fans, power supplies, controller and control valve all are hot-swappable
- 7" high resolution touch screen interface
- Integrated casters and levelling feet for simple reconfiguration of rows
- Hydraulic connection and cabling through top or bottom panel
- Automatic fan speed and valve opening control
- Standard Dimensions: 300 W / 2000 H. Version in 1000D and 1200D available; other dimensions upon request
- EMC protection available upon request
- Highly stable temperature control down to 0.1K p.p. available upon request

BENEFITS

- Ideal for edge computing and physics applications
- Maximum availability and quick repair
- Designed for efficient operation at increased facility water temperatures
- Combination with direct to chip liquid cooling
- Modular standard - easy to adapt to individual requirements
- Minimal planning outlay / short setup time
- Minimal changes between In-Row and LHX (In-Rack) design - simplifies planning, layout and specification



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TECHNICAL INFORMATION



COOLING PERFORMANCE 44KW*

- Coolant: treated water with up to 35% glycol
- Coolant Flow: max. 6 m³/h / 100 l/min.
- Coolant Head Loss: 100 kPa @ 80 l/min
- Air Flow: max. 6500 m³/h free blowing
- Cooling performance: 44 kW
- Noise emission: 96 dB(A) with closed doors



SPECIFICATION

Mechanical

- Height: 2000 mm / 42RU Width: 300 mm
- Depth: 1000 or 1200 mm
- Pipe Connection: 1" BSPP flat gasket or Quick Disconnect Couplings

Electrical

- Power Requirement: 1~ 195 – 277 VAC, 50/60 Hz
- Power Consumption: 1750 W



MONITORING

- Valve position (adjustable via cold air temperature)
- Fan speed (adjustable via hot air temperature)
- Return water temperature
- Fan-function display
- Local alarm display
- User-defined preventative maintenance alarms
- Alarm log
- SNMP and Modbus interface



	Operating Point 1	Operating Point 2	Operating Point 3
Coolant Supply [°C]	14	20	24
Coolant Return [°C]	22.7	23	26.6
Coolant Flow [m ³ /h]	4.6	6	6
Air Supply (to servers) [°C]	24	24	28
Air Return (from servers) [°C]	45	45	45
Air Flow [m ³ /h]	6700	3000	3300
Cooling Performance [kW]	46	21	18
Coolant Pressure Drop [kPa]	100	160	160



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