

Item**Text for tenders LCP Smart WHD (mm) 300x2000x1000****LCP Smart, technical description:**

The air/water heat exchanger designed for the climate control of server racks in data centres offers a controlled, tailor-made, energy-optimised cooling capacity of up to 20 kW with a minimum weight and a comprehensive possibility of monitoring.

The air/water heat exchanger is mounted at the side of the rack.

This ensures a full separation of IT and Facility Management - even in the event of maintenance access only to the LCP Smart.

The LCP Smart draws in the hot air at the sides of the server enclosure rear, cools it using high-performance compact impeller heat exchangers, and blasts the cooled air back into the front part of the server enclosure at the sides.

Thus an even, horizontal climate control over all height units in the server rack is achieved. Cooling of the installed 482.6 mm equipment is ensured even when the enclosure doors are opened (e.g. for maintenance purposes).

Optionally one or two server racks may be cooled with one LCP Smart.

Maximum efficiency is achieved and electrical power consumption is minimised due to the use of EC fans.

The large-scale high performance heat exchanger of the LCP Smart makes high inlet temperatures (up to 21 °C) and low pressure loss on the water and air side possible.

Thus a remarkable extension of free cooling and reduction of electrical power consumption of the pump system is achieved.

Air/water heat exchanger and server rack are spatially separated.

Condensate and leakage management is integrated.

The water connection may be routed via 1" external thread towards the bottom or the rear.

The fans may be exchanged without tools.

Network integration for monitoring/setting all technical parameters is possible.

Extremely robust thanks to its simple, optimised construction.

Strict spatial separation of water-carrying and electrical components. All electrical components are additionally protected against splashing water.

TÜV GS certified, complies with condensate test to DIN 3168.

Control

Optimum adaptability (0-100%) thanks to dynamic, continuous control of the cold water flow.

Control of constant server inlet air temperature by continuous adjustment of the volumetric air flow based on the temperature difference (inlet air - outlet air) for the best possible and highly efficient power supply to the server systems.

The unit is designed according to the "fail safe" principle. In the very unlikely event of failure, the unit automatically switches over to maximum cooling output.

Standard redundant design of the air temperature sensors required for control.

Service:

The six fans may be individually exchanged with the system operational and are self-contacting.

Control is being continued in case of a fan failure / exchange. There are no settings necessary before or after the fan replacement.

The replacement of individual fans is possible within 30 seconds.

The unit has an automatic vent valve, thus ensuring the fast availability of the unit during implementation.

Monitoring:

Extended functionality of the monitoring and control technology/software via SNMP.

Basic CMC with Ethernet interface as standard.

Graphic user interface thanks to integral webserver.

Constant display and monitoring of all relevant operating parameters such as inlet/outlet air temperatures, flow, inlet/return temperatures, fan speed, dissipated heat loss etc.

Technical specifications:

- Cooling medium: Water or water/glycol mixture according to operating instructions
- Water connection: 1" external thread
- Voltage supply: 230 V, 1~, 50/60 Hz or alternatively 400 V, 3~, N, 50/60 Hz for single-phase assignment
- Weight: approx. 180kg
- Dimensions (WxHxD): 300x2000x1000 mm
- Available installation height: free (42 U)

Standard design:

- Sensible cooling output: 20 kW
- Volumetric air flow: 3000 m³/h
- Water inlet temperature: 15 °C
- Water return temperature: 22.5 °C
- Flow rate of cooling medium: 40 l/min
- Share of glycol in the medium: 0%
- Server inlet air temperature: 22 °C
- Delta T (inlet - outlet air): 20 K
- Water pressure loss of the entire unit: 60 kPa
- Electrical power consumption, maximum: 690 W

Project-specific design:

- Sensible cooling output:kW
- Volumetric air flow:m³/h
- Water inlet temperature:°C
- Water return temperature:°C
- Flow rate of cooling medium:l/min
- Share of glycol in the medium:%
- Server inlet air temperature:°C
- Delta T (inlet - outlet air):K
- Water pressure loss of the entire unit:kPa
- Electrical power consumption in the operating point:W

Optional:

- Redundant power infeed by transfer switch
- Touchscreen display for monitoring and operating work on the unit (3301.790)

Make: Rittal

Type: 3301.460 or equivalent

| Quantity | Unit | Unit price (EP) | Total price (GP) |
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