LCP Rear Door CW

Compact Thinking, Great Design:
Maximum Efficiency. Minimal Space.

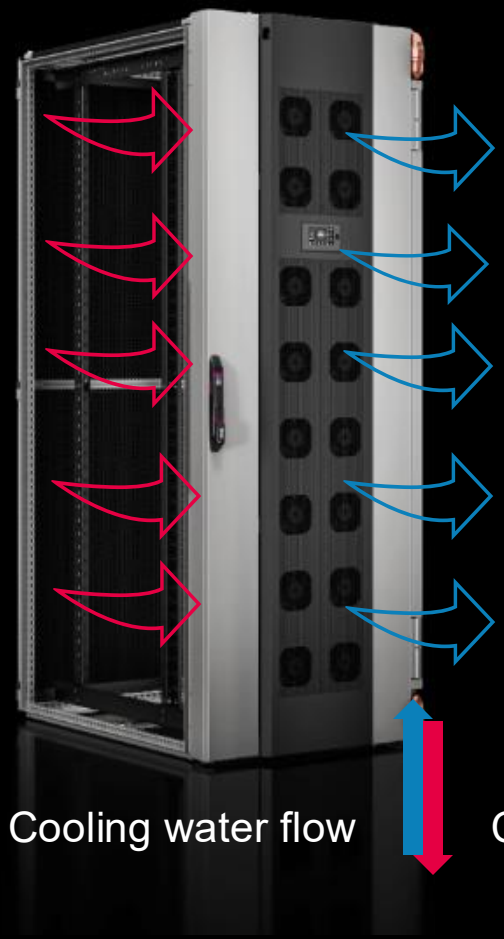
LCP Rear Door CW

The modular concept

- The LCP Rear Door CW adapts to the needs of the user thanks to the modular passive and active modules
- A water module can also be used for individual capacity control

LCP Rear Door CW

Functionality



- The LCP Rear Door CW extracts the thermal energy from the IT hardware installed in the IT rack (servers, switches, etc.)
- Warm exhaust air from the IT hardware is pulled by the fans of the LCP Rear Door through an air/water heat exchanger and cooled to room temperature, where it is then supplied into the server room (server supply air)
- By connecting to a central chilled water system, the waste heat from the IT hardware is transferred to the cooling water. This prevents the heat from being dissipated to the installation site (data center).

The Passive Module

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Passive module

- Space-saving rear door with an air-to-water heat exchanger with a cooling capacity of **15 to 30 kW**
- **8 Variants** in **4 door sizes**
  (2000x600 | 2000x800 | 2200x600 | 2200x800mm)
- Flexible thanks to adjustable door hinge and coolant connection
  (Standard: Right stop & water connection at the bottom)
- Direct mounting to VX IT/TS IT (without adapter frame)
- Up to **50%** space savings – installation depth of 180 mm ensures less m² consumption

The Active Module

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Active Module

Required if the servers cannot carry enough **air volume flow** through the heat exchanger to ensure heat transport over the water

Wide Range Voltage Input
100–240V AC, 1~, 50/60 Hz

Stepless operation of the 16 BLDC fans from 10-100%

I/O Board and **Humidity/Temperature Sensors** integrated

The Water Module

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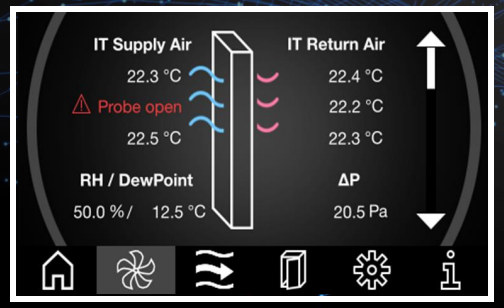
Water module

- For **individual capacity control** with a control ball valve (two-way)
- Measures the flow and return temperature of the medium as well as the volume flow (display of cooling capacity)
- Suitable for installation in the raised floor or above the server racks
- **Prevention of condensation** via automatic software controls when surface temperatures fall below the dew point

*Can only be used with the active module



The I/O Controller

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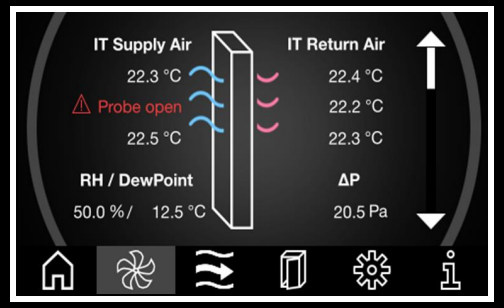
I/O Controller



Determination and display of the current **EER*** and **pPUE***

Thermal and electrical performance are measured **continuously**

Summation of operating hours, fans, valve cycles and flow rate

Integration in RiZone OTM Suite: Advanced measurement and management functions; values can be transferred and visualized

* EER = Energy Efficiency Ratio, pPUE = partial power usage effectiveness

Accessories

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Accessories

Connection hose SK 3301.351

Touchscreen display, color SK 3314.030

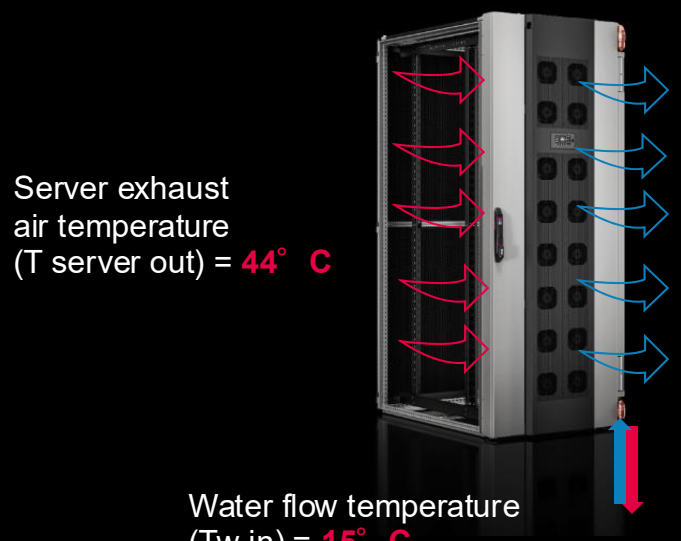
Cable DK 7200.215

Technical Data

LCP Rear Door CW

Passive module

Facts and figures	
Cooling capacity air/water heat exchanger	15 kW and 30 kW: Tw in = 15° C / Tw out = 21° C T server out = 44° C / T room in = 24° C
Variants	8 variants in 4 door sizes (2000x600; 2000x800; 2200x600; 2200x800mm)
Assembly	Direct mounting on VX IT & TS IT (without adapter frame) depth <= 180 mm
Connections	Door opening angle 180° Water connection at the bottom (standard) Right hinge (standard)
Pressure	Lowest possible pressure drop heat exchanger on the air and water side
Water volume flow	0-80 l/min
Water supply	DN25 AG 1”



LCP Rear Door CW

Passive module

Article	Short text	Basic data text
3314.615	SK LCP Rear Door CW, 15 kW, WHD: 600x2000x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.630	SK LCP Rear Door CW, 30 kW, WHD: 600x2000x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.625	SK LCP Rear Door CW, 15 kW, WHD: 600x2200x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.650	SK LCP Rear Door CW, 30 kW, WHD: 600x2200x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.815	SK LCP Rear Door CW, 15 kW, WHD: 800x2000x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.830	SK LCP Rear Door CW, 30 kW, WHD: 800x2000x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.825	SK LCP Rear Door CW, 15 kW, WHD: 800x2200x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.850	SK LCP Rear Door CW, 30 kW, WHD: 800x2200x180 mm	for VX IT, TS IT, RAL 7035, RAL 9005 fine structure matt
3314.635	SK Water module forLCP Rear Door CW	for capacity control, WHD: 340x184x502 mm, RAL 7035
3314.020	SK Active module forLCP RD CW, für H=2000 mm	RAL 9005 fine structure matt, including 16 BLDC fans, I/O board
3314.025	SK Active module forLCP RD CW, für H=2200 mm	RAL 9005 fine structure matt, including 16 BLDC fans, I/O board

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Active Module

Facts and figures	
Equipment	BLDC fan, I/O CIOC 1, Power supply Sensors & Interfaces Optional 4.3" display
Wide Range Voltage Input	100–240VAC, 1~, 50/60 Hz
Noise level at 1 m distance	87 dB(A) @ 100% RPM; 71 dB(A) @ 50% RPM-Air flow max. 5,200 m³/h (at 0 Pa between suction and discharge side)
Rated performance	0.47 kW

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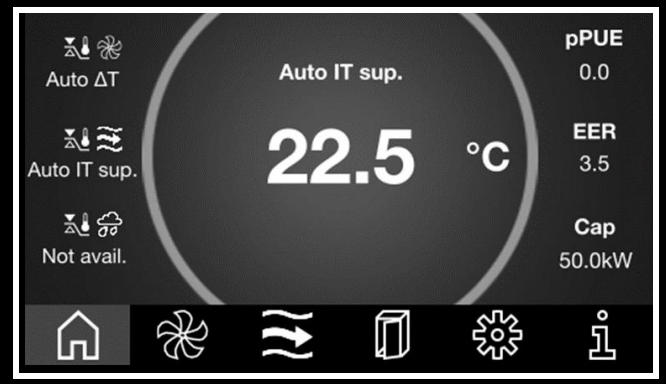
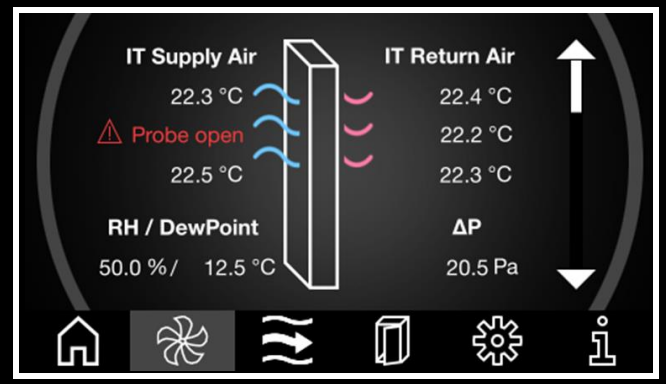
I/O Controller

Facts and figures	
Network interface	2xRJ45 (switched), each 10/100/1000 MBit/s
CAN bus interface	RJ45, for connecting 16 CMC III sensors
Supported Protocols	IPv4 / IPv6, Integrated web server, HTTP, HTTPS, SSL, SSH, NTP, Telnet, TCP/IP v4 und v6, DHCP, DNS, NTP, Syslog, SNMP v1, v2c und v3, Traps, OPC-UA, Modbus/TCP, FTP/SFTP (Update/File Transfer), E-mail dispatch (SMTP)
Alarm-Relay	48 V DC/1A
Conformity	CE, cURus, CB-report





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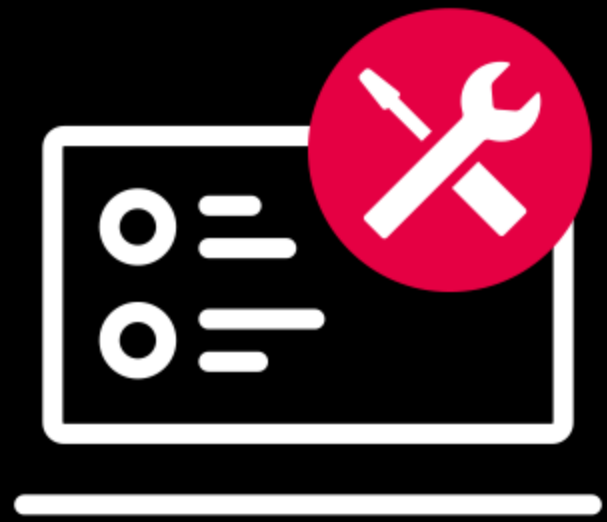
Software

Facts and figures	
Regulation	Delta T control cold air (standard) Delta p control (optional)
Controlled condition	The control variable is the air outlet temperature into the room set by the setpoint
	The control variable is the differential pressure above the heat exchanger (optional differential pressure sensor required).
Cooling capacity control	Water module required
Condensate prevention	Software-controlled (active module + water module required)
Condensate emergency operation	In the event of a controller failure, an integrated fail-safe operation ensures reliable cooling



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Operating conditions

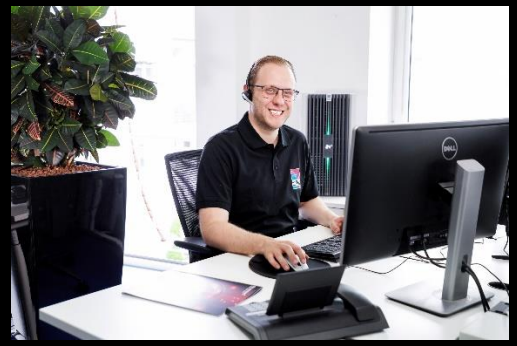
Facts and figures	
Operating pressure water	max. 10 bar
Operating temperatures	Water: min. 10° C, max. 30° C
	Environment: min. 10° C, max. 50° C
Humidity	10 - 95 % non-condensing (condensate-free operation)

Service

LCP Rear Door CW

All-round carefree package with the Rittal Service Portfolio

Assembly, Installation, & Commissioning

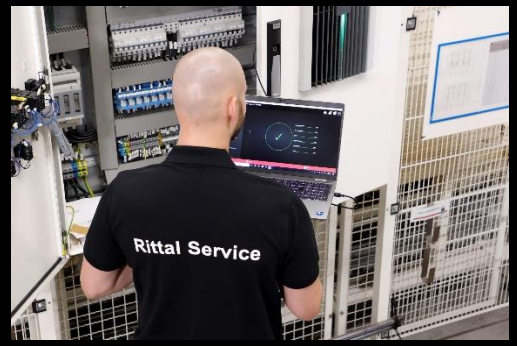


Tech Support & Troubleshooting

Swap Service & Repairs

Original Spare Parts

Service Agreements



Professional Maintenance