STULZ

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CyberRack Active Rear Door

Rack-based CW cooling for optimum operating conditions

Efficient and targeted rack cooling

The CyberRack Active Rear Door is a heat exchanger door with EC fans for installing on the rear door of server racks. Combined with a chiller, the space-saving CyberRack units remove the heat generated by the servers right at the source. No more hot air gets into the room.

CyberRack units take up virtually no footprint and therefore ensure optimum use of available space in the data center. When there are high heat loads, hot spots and no raised floor, these units are the ideal solution.

Service worldwide

For 40 years, the STULZ service organization has provided preventive and corrective services for mission-critical applications. With 10 branches, 19 subsidiaries, and sales and service partners in more than 140 countries, we make sure we are close to our customers all over the world, ensuring perfect operation of their CyberRack systems.

Advantages at a glance

Flexibility

- Individual adapter frames for adaptation to any rack
- For cooling entire IT rooms and data centers without additional CW air conditioning systems
- Also suitable for supplementing existing precision air conditioning units
- For server racks both with and without integrated fans
- Space-saving installation as a rack door with no changes to the data center structure

Efficiency

- Optimum operating conditions: No mixing of server outlet air with the room air, because no hot return air gets into the room
- As the servers are cooled directly in the server rack, high water temperatures are possible, considerably increasing the number of operating hours with Free Cooling
- In combination with the STULZ CyberCool 2 including Free Cooling function, operating costs are dramatically reduced

Operational reliability

- To protect the server's own fans from excess pressure, the optional differential pressure control from STULZ adapts the speed of the CyberRack fans in line with the server airflow
- The EC fans are equipped with connectors and can be replaced during operation if necessary
- Worldwide service

Easy installation

Once the rack rear door has been replaced by the adapter frame, the CyberRack can be fitted quickly and easily.

The rack-specific adapter frames are available in two different heights and widths (height: 42 U and 48 U, width: 600 mm and 800 mm).

Compact design

- Less than 300 mm additional rack depth
- No need to reposition the server racks
- The servers can retain all the height units in the rack

Application 1: Autonomous CW cooling

- Delivers the entire cooling capacity for the rack without the need for additional precision air conditioners
- Reliable cooling even without a raised floor
- No hot return air in the IT room
- No need to separate hot and cold aisles

Application 2: Supplementing the precision air conditioning

- Targeted cooling of high-density racks
- For preventing hot spots
- No discharge of hot return air in the IT room

The rear door of the server rack is replaced by the CyberRack Active Rear Door. With the aid of the integrated heat exchanger, the unit cools your servers right there where the heat is produced, without discharging return air into the room. The IT room therefore has no additional heat at all.

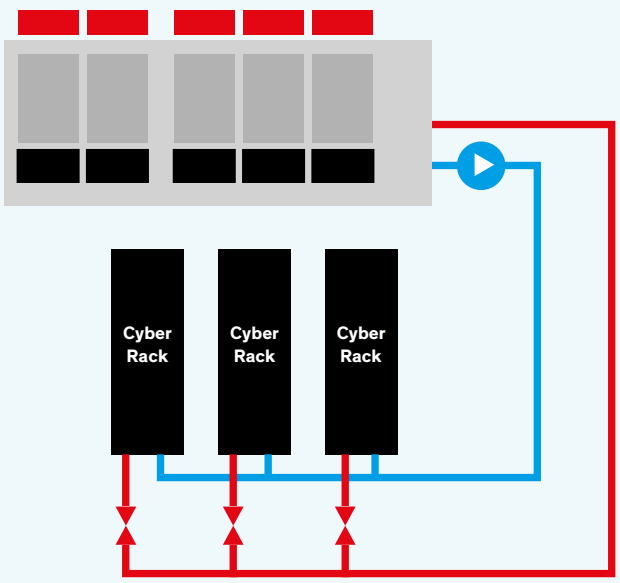
The sensors in the CyberRack measure the return and supply air temperatures in the server rack, to ensure optimum cooling. The temperatures are adapted to the heat load of the servers, and guarantee efficient cooling whatever the server load.

Integration with CyberCool 2

Solutions from STULZ are perfectly coordinated to work together, to cool your IT systems efficiently and reliably. CyberRack units work most efficiently in combination with the CyberCool 2 chiller.

Investing in the quality, reliability and efficiency of STULZ air conditioning and chiller solutions pays off during operation after just a short time, due to energy savings and operational reliability.

You can find more information on the CyberCool 2 on our product page at https://www.stulz.de/en/cybercool-2/



C2020 controller

The CyberRack units are ideal for integration in existing systems and can be controlled to perfection by the STULZ controller.

- Precise control based on cooling needs
- Continuous monitoring of fan speed, server and CyberRack outlet temperature
- Direct connection to BMS systems via ModBus RTU protocol or Ethernet

Features

- EC fans for low electricity consumption
- For data centers with and without raised floor
- Maintenance-friendly

Options

- Differential pressure control protects the server's own fans from excess pressure
- 2 or 3-way CW valves, also available as a 2-way pressure independent control valve
- Air temperature and humidity sensor
- Flexible connection hoses
- Cooling capacity display

Optional pressure independent control valve (PICV)

The PICV combines the functions of control, hydraulic compensation and flowrate measurement. The water flowrate required for cooling is set directly by the CyberRack control system.

- Low water-side pressure drops cut pump energy costs
- Automatic hydraulic compensation means lower investment and installation costs and faster start-up
- The defined water flowrate ensures stable and precise control in all load states
- The cooling capacity of each individual server rack is recorded

Technical data

Model		RBW B0	RBW C0
Cooling capacity[1]	kW	18.8	32.3
Airflow	m^3/h	4,800	6,000
Power consumption	kW	0.6	0.80
Number of fans[2]		4	5
Dimensions	mm	2000 × 600 × 330	
Weight	kg	97	100
Power supply	V/ph/Hz	230/1/50-60	

1) Air inlet temperature: 40 °C; r.h. 20 % Water temperature: supply 14 °C, return 19 °C
2) External static fan pressure: 30 Pa

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Close to you around the world

With specialist, competent partners in ten German branches and in subsidiaries and exclusive sales and service agents around the world.
Our ten production sites are situated in Europe, North America and Asia.

For further information, please visit our website at **www.stulz.com**

You can find out more on our product page.