

Sidecooler CW with an extended heat exchanging surface iQdata Cooling



Product description

The iQdata sidecooler is a high-performance cooling unit for energy-saving cooling of IT components in a power output range from 10 kW to 50 kW. Two separate high efficiency heat exchangers, which are arranged as V, ensure a high heat exchanger performance. Due to the large heat exchanging surface, the sidecooler can be operated with particularly high cold water temperatures. The hydrophilic coated heat exchangers can be easily dismantled independently if required.

The cooling units are mounted on the side of the rack. By using EC fans and a low pressure drop on the air side, the sidecooler can be operated with very low power consumption.

Due to the high heat exchanger performance, operation is largely ensured by free cooling, which significantly reduces operating costs compared to conventional cooling solutions. A clearly arranged touch panel enables monitoring and setting of individual target values.

Technical data	
Protection class	IP 20
Voltage:	50 Hz, 230 V; 1 Ph
Grounding	DIN VDE 0100-540:2012-06
Monitoring	For fan speeds, supply and exhaust air temperatures, cold water supply and return, leakage, further options, see technical specification options
Communication interfaces	Standard HTTP, Modbus, TCP, TRU, SNMPV2 and V3, FTP, Optional BACnet
Air volume flow rate	7,300 m ³ /h with 6 fans (free blowing)
Fans	EC centrifugal fans, continuously controlled
Supply air temperature control	3-way valve, switchable as 2-way valve
Coolant	Water or water/glycol mixture
Coolant temperatures	6 °C to 30 °C
Water connection	DN 32 (G 1 ¼" external thread)
Permitted operating pressure	6 bar
Temperature difference at 30 kW	Supply air server / cold water supply 5 K
Dimensions	See technical specification

Technical specification options																			
	Cabinet type							*	Coolant connection				Control/Monitoring						
	1	2	3	4	5	6	7		8	9	10	11	12	13	14	15	16	17	18
SC																			
SC																			

* Number of fan modules

Cabinet type	
1. Design	
	O Open sidecooler
	C Closed sidecooler
	H Hybrid sidecooler
2. Coolant	
	W Water
	D Refrigerant
3. Height	
	N Height: 2,000 mm
	H Height: 2,200 mm
4. Depth	
	1 Breadth: 1,000 mm
	2 Breadth: 1,200 mm
	3 Special depth
5. Colour	
	1 RAL 7035
	2 RAL 9005
6. Frame	
	0 Without plinth
	1 With plinth 100 mm (without piping)
	2 With plinth 200 mm (on request)
7. Splash guard with filter class	0 No splash guard

Fan modules

8. Number of fan modules:		
	0	without
	1	1 pc. module
	2	2 pcs. module
	3	3 pcs. module
	4	4 pcs. module
	5	5 pcs. module
	6	6 pcs. module (only in height 2,200 mm)

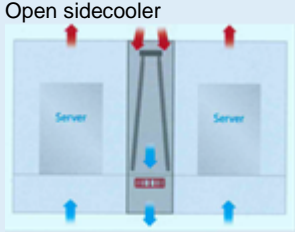
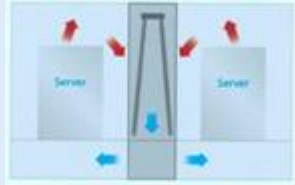
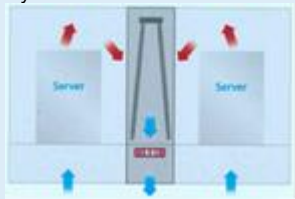
Coolant connection

9. Cooling connections		
	U	from below
	O	from above
	S	from below in the plinth
10. Heat exchanger		
	S	Standard 2-row
	V	Heat exchanger surface for permanent condensate formation
11. Condensate pump		
	0	Without condensate pump
	1	With condensate pump
12. Heat meter		
	0	Without meter
	1	With meter

Control/Monitoring

13. Automatic emergency door opening		
	0	Without emergency door opening
	1	With up to 1 server cabinet (on request)
	2	With up to 2 server cabinets (on request)
	3	With up to 3 server cabinets (on request)
	4	With up to 4 server cabinets (on request)
14. Smoke detection		
	0	Without smoke detection
	1	With smoke detection
15. Communication interfaces		
	S	Standard (HTTP, Modbus TCP, TRU, SNMP V2 and V3), FTP
	B	BACnet
16. Server cabinet monitoring		
	0	Without temperature sensors
	1	Temperature sensors for 1 cabinet
	2	Temperature sensors for 2 cabinets
	3	Temperature sensors for 3 cabinets
	4	Temperature sensors for 4 cabinets
17. Door monitoring for server cabinets		
	0	Without door monitoring
	1	For 1 cabinet
	2	For 2 cabinets
	3	For 3 cabinets
	4	For 4 cabinets
18. Configurable inputs/ outputs		
	0	none
	1	2x potential-free contacts and 2x digital inputs
19. Power supply		
	0	Simple supply
	1	A/B supply

Explanation of the technical specification

1. Design	
O	 <p>Open sidecooler</p>
C	 <p>Closed sidecooler</p>
H	 <p>Hybrid sidecooler</p>
2. Coolant	
W	Coolant water or 30 % water / glycol mixture
D	Refrigerant R 410 A
3. Height	
N	Design height without plinth 2,000 mm
H	Design height without plinth 2,200 mm
4. Depth	
1	Depth 1,000 mm
2	Depth 1,200 mm
5. Colour	
1	Colour RAL 7035 (Light grey)
2	Colour RAL 9005 (Jet black)
6. Frame	
0	Without plinth (with height-adjustable feet)
1	With plinth, height 100 mm (not for laying the cold water piping below the server cabinets)
2	With plinth, height 200 mm
7. Splash guard with filter class	
0	Without filter
8. Number of fan modules	
0	Without fan module
1	1 fan module, remaining height units are covered with partition plates.
2	2 fan modules, remaining height units are covered with partition plates.

3	3 fan modules, remaining height units are covered with partition plates.
4	4 fan modules, remaining height units are covered with partition plates.
5	5 fan modules, for height 2000 mm
6	6 fan modules, only for height 2200 mm

9. Cooling connections

U	Cold water connection from below, DN 32 (G 1 ¼" external thread)
O	Cold water connection from above, DN 32 (G 1 ¼" external thread)
S	Cold water connection from below, DN 32 (G 1 ¼" external thread). The distance between the connections has been minimised so that pipelines can be connected via a quick coupling in the plinth, design height 200 mm.

10. Heat exchanger

S	Heat exchanger with standard lamellar spacing. The lamellae are hydrophilic coated to prevent dirt deposits and improve condensate discharge.
V	Heat exchanger with larger lamellar spacing for lower cold water temperatures and better condensate discharge. The lamellas are hydrophilic coated.

11. Condensate pump

0	Without condensate pump. A hose with "½" can be connected on site to a hose nozzle of the condensate tray.
1	With condensate pump, this leads off the condensate above the sidecooler into a condensate collection pipe connected on site.

12. Heat meter

0	Without heat meter
1	The ultrasonic heat meter is integrated externally into the connection line and connected to the sidecooler via a control line. The ultrasonic sensor achieves highly accurate measurement results. It has no moving parts and works wear-free.

13. Automatic emergency door opening

The emergency door opening for the server cabinets next to the sidecooler is connected to a sidecooler. The doors open automatically, e.g. when cabinet temperatures are too high or in the event of a fire, to improve the flow of extinguishing gas.

0	Without emergency door opening
1	Automatic emergency door opening for 1 server cabinet
2	Automatic emergency door openings for 2 server cabinets
3	Automatic emergency door openings for 3 server cabinets
4	Automatic emergency door openings for 4 server cabinets

14. Smoke detection

0	Without smoke detection in sidecooler
1	With smoke detection in sidecooler. Alarms or automatic emergency door openings are triggered via the control system.

15. Communication interfaces

0	The standard interfaces included in sidecooler are: HTTP, Modbus TCP, TRU, SNMP V2 and SNMP V3
1	BACnet is available as an option

16. Server cabinet monitoring

Temperature sensors for recording air temperatures in the server racks next to the sidecooler. The position of the sensor can be freely selected. The corresponding alarm values can be defined via the control system. One temperature sensor is provided for each server cabinet to be monitored.

0	Without temperature sensors
1	Temperature sensors for 1 cabinet
2	Temperature sensors for 2 cabinets
3	Temperature sensors for 3 cabinets
4	Temperature sensors for 4 cabinets

17. Door monitoring for server cabinets

The front and rear doors of the side-mounted server cabinets are checked with the door monitoring.

0	Without door monitoring
1	Door monitoring for 1 server cabinet
2	Door monitoring for 2 server cabinets
3	Door monitoring for 3 server cabinets
4	Door monitoring for 4 server cabinets

18. Configurable inputs/ outputs

With this option, configurable inputs/ outputs are possible.

DE input:

- Simple input for linking, (incl. SNMP trap functions)
- Ext. shutdown of fans
- Alarm list with text display, send by trap with kommt/geht
- Emergency opening, message as text display in alarm list, send as trap

Potential-free contact:

- Switches when DE input is linked
- Switches when fault messages are present
- Switch on/off the sidecooler
- Switches when smoke alarm is detected by optional smoke detector

0	No configurable inputs/ outputs
1	2x potential-free contacts and 2x digital inputs

19. Power supply

0	Simple 230 V power supply
1	A/B supply, switches to B supply without interruption in the event of failure of the A network

Ratio of cooling capacity - cold water supply pipe temperature / server supply air temperature

Example for sidecooler: Height 2,200 mm
Depth 1,200 mm

