

# apra cooling systems "sidecooler"

## Good climate for your valuable electronics

### apra cooling systems "Sidecooler"

The air-water-heat exchanger apra sidecooler is especially developed for the cooling of fully packed server and networking racks and guarantees reliable and efficient cooling due to a special designed air flow through the cabinet.

The electronic controls allow user-friendly supervision and if needed, the intervention or long-range diagnosis by a service technician via web.

- efficient cooling performance, even at high flow temperatures
- perfect cooling of blade and rack servers is guaranteed by horizontal air flow guidance through the whole cabinet height.
- the separation of the cool front and hot rear area of the rack prevents uncontrolled exchange of hot and cold air and guarantees optimized air-flow through the servers
- hot plug fan units can be easily replaced without switching off the system
- due to the compact design of the apra sidecooler, the necessary floor space is limited to a minimum.
- Condensation water is prevented by use of a "dry condition" operating system (inlet water temperature = 14°C)
- High leakage safety due to the fact that all water bearing components are located outside of the server cabinet.



### Technical information

Typ	Sidecooler 800	Sidecooler 1000	Sidecooler 1200
<b>Nominal ratings:</b>			
Air inlet temperature	28°C / 38% rh	28°C / 38% rh	28°C / 38% rh
water inlet temp.	14°C	14°C	14°C
water outlet temp.	18°C	18°C	18°C
<b>Cooling capacity</b>	15.000 W	15.000 W	20.000 W
<b>Air flow rate</b>	3.000 m³/h	3.000 m³/h	3.000 m³/h
Fans	5 pieces	5 pieces	5 pieces
<b>Cooling water flow rate</b>	36,60 l/min.	45 l/min.	51 l/min.
Pressure drop	32,25 kPa	52,10 kPa	41,71 kPa
<b>Operating voltage</b>	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Power consumption	520,4 W	520,4 W	613,4 W
Current	3,51 A	3,51 A	3,92 A
<b>Dimensions WxHxD mm</b>	300 x 2000 x 800	300 x 2000 x 1000	300 x 2000 x 1200
Net weight	104,26	131,86	175,81
Weight in operation	113,79	143,69	190,44
<b>Part no. left version</b>	23-5200-31	23-5200-33	23-5200-35
<b>Part no. right version</b>	23-5200-32	23-5200-34	23-5200-36

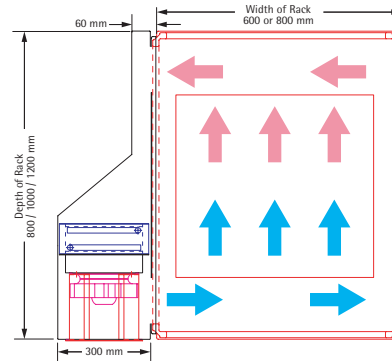
Special attention is paid to the security of the system. The performance data is based on operation in dry condition. Of course, the systems can also be operated with lower water inlet temperatures, which leads to higher cooling capacity.



(Fig. 2)

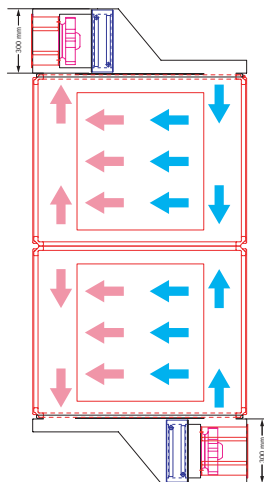
### Sample 1

Rack with sidecooler, left version



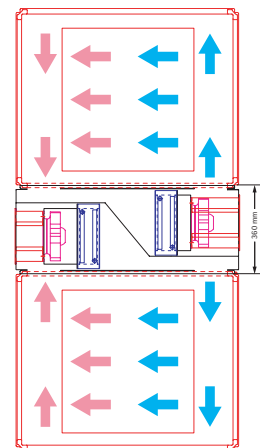
### Sample 2

Rack combination with sidecooler, left and right version, redundant installation

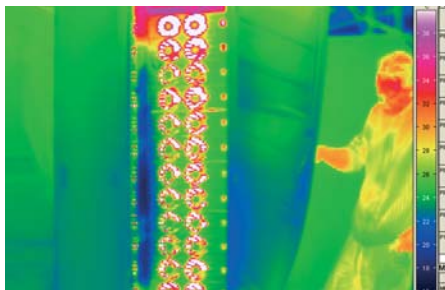


### Sample 3

Rack combination with sidecooler, left and right version, optimised space saving installation



Tested at FH Kaiserslautern



Picture taken with heat detecting camera