

# HRCC

## CHILLED WATER AIR CONDITIONING UNITS FOR HIGH POWER DENSITY RACKS



		HRCC0200	HRCC0250	HRCC0450	HRCC0510
<b>Inlet air condition 30°C - 35% r.h.</b>					
Total cooling capacity	kW	20.1	27.7	46.2	57.0
SHR	-	1.0	1.0	1.0	1.0
Air flow rate	m³/h	4000	5300	9000	11000
Total fan absorbed power	kW	0.5	0.7	1.5	1.5
Fan absorbed current	A	2.2	3.5	2.4	2.5
Inlet/outlet water temperature	°C	10.0/15.0			
<b>Inlet air condition 35°C - 30% r.h.</b>					
Total cooling capacity	kW	13.3	18.4	31.2	36.9
SHR	-	1.0	1.0	1.0	1.0
Air flow rate	m³/h	4000	5300	9000	11000
Total fan absorbed power	kW	0.5	0.7	1.5	1.5
Fan absorbed current	A	2.2	3.5	2.4	2.5
Inlet/outlet water temperature	°C	20.0/26.0			
Power supply	V/ph/Hz	230 / 1 / 50		400 / 3+N / 50	
Dimensions [ L x H x D ]	mm	300x2000x1200		600x2000x1200	

Also available with 60 Hz power supply

ITALIAN  
COOLING  
SOLUTIONS

 HiRef

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# HRCC



13 - 57 kW

 HiRef

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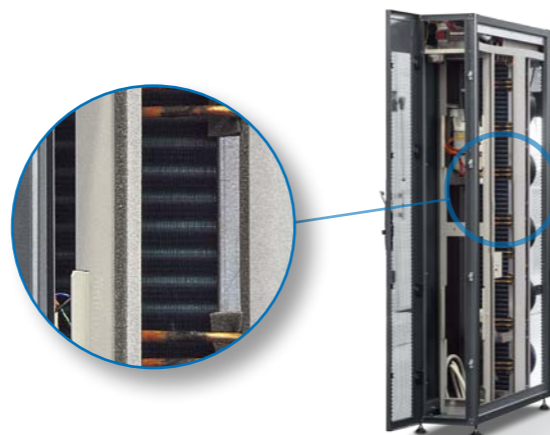


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## CHILLED WATER AIR CONDITIONING UNITS FOR HIGH POWER DENSITY RACKS

### SAFETY IN THE SERVER ROOM

All models in the **HRCC** range feature heat exchange coils with **hydrophilic coating**. This special coating - together with adequate adjustment of air through-flow speeds - helps to collect any condensate in the collection tray, avoiding dripping on the inside and outside of the unit.



### VENTILATION EC 2.0

The use of standard-equipment **EC fans** across the whole range - designed to adjust the air flow according to the thermal load - allows an efficient use of the electricity for ventilation purposes, with a positive impact on the system PUE. Speed adjustment is performed via MODBUS communication, which guarantees an extended adjustment range and introduces the "emergency speed" function. This function allows the fan to operate even during the microprocessor offline time - the "hot-swappable microprocessor" function can thus be implemented.



### HOT SWAPPABLE FANS

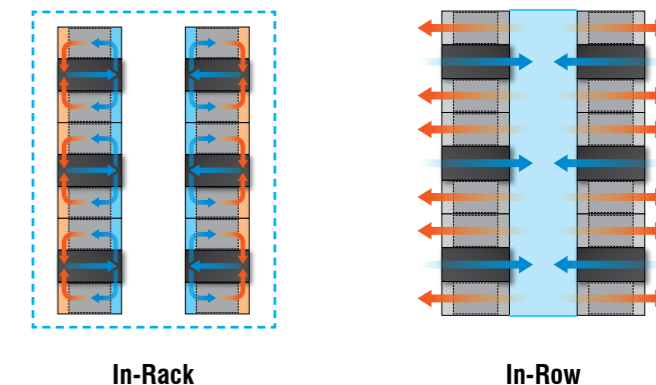
The rack coolers of the **HRCC** series are equipped as standard with **hot-swappable fans**, since the field of application of these units requires maximised limiting of downtime. Thanks to this installation design, the replacement of a faulty fan is a routine maintenance task. This is because the unit does not have to be turned off to replace one or more fans, thanks to the use of the protective basket and connectors for the power and drive sections.



The rack coolers in the HiRef **HRCC** range offer an ideal solution for the cooling of small-to-medium size Data Center racks where precision control of hygrothermal parameters is required 24/7. They are particularly suitable for integration into chilled water systems with Free-Cooling chillers, given the possibility of making these air conditioners work even with higher water temperatures than the usual 7/12°C or 10/15°C values. The internal design and the choice of components are specifically aimed at obtaining high levels of energy efficiency and guaranteeing service continuity, the second being a key requirement in this type of application with high/very high power density.

### IN-RACK OR IN-ROW CONFIGURATION

Depending on the cooling mode of the rack cabinets - achieved by creating hot and cold aisles in the Data Center or via compartmentalisation and localised cooling - the **HRCC** range comes in two different configurations: "**In-Rack**" in which a closed loop is created between the rack cooler and rack cabinet and "**In-Row**", in which cold air is released into the "cold aisle" to each rack cabinet and hot air is taken in by suction by the rack cooler from the surrounding environment.



### SLIDING CONTROL PANEL



For 300mm wide structures, the electrical panel is designed to take up as little space as possible without interfering with air distribution over the whole working height of the unit. To achieve this, without affecting accessibility during the initial start-up and unscheduled maintenance operations, a **sliding drawer version** has been created. This configuration also prevents tangling of the wiring.

### HIGH POWER DENSITY

**99**  
kW/m<sup>2</sup>

The internal design and the special component layout allows one or two finned-coil exchangers to be used with an **extensive heat exchange surface area**. The unit footprint is still small, ensuring optimal use of space in the server room.

- » Water connections from the top or bottom of the unit
- » Stainless steel condensate drain tank
- » Fan speed modulation based on the thermal load (constant  $\Delta T$ )
- » Fan speed modulation based on air flow requirements (constant  $\Delta p$ )
- » Humidify/de-humidify feature
- » Double power supply with automatic switch
- » Instant reading function of the supplied cooling capacity (on request)