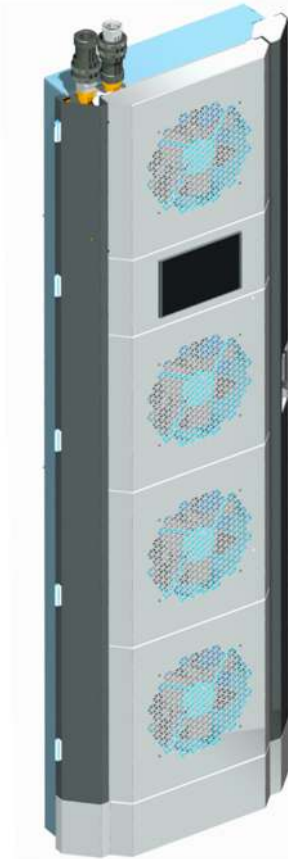


# Rear Door Heat Exchangers (RDHx's) – RDHA20 and RDHA30

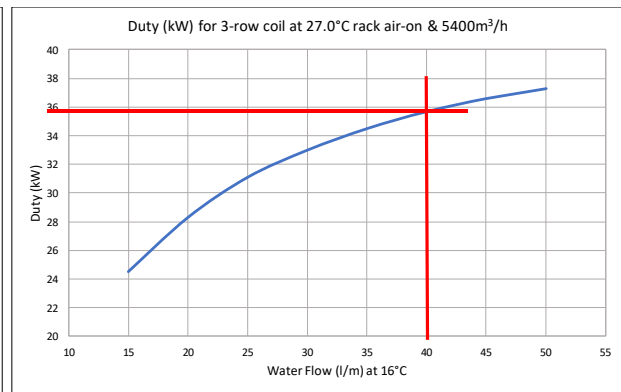
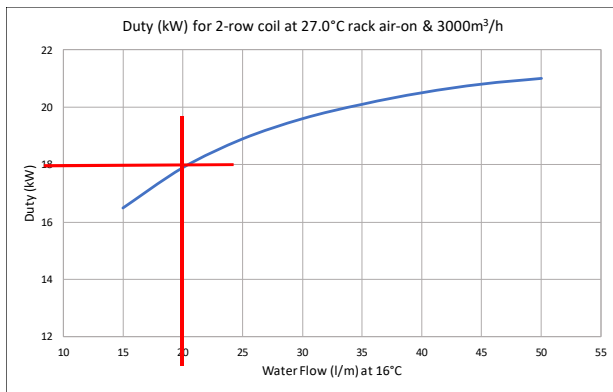
Energy and space efficient cooling for Datacentre applications



**Features:**

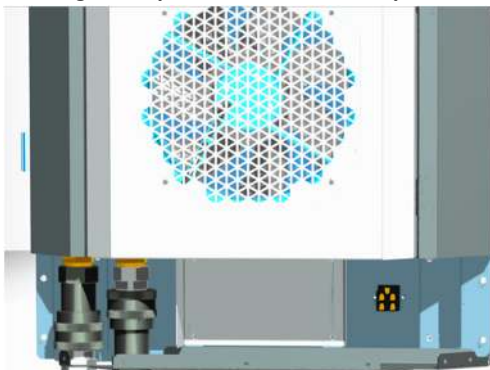
- Designed to fit any rack 600mm (24") wide x 42-45U high
- Active 2 and 3 row coil designs (20 and 30kW)
- Relatively high water temperature maximises free cooling potential
- Slim design takes up minimal floor space
- Top and bottom swappable ¾" or 1" connections for flexibility on site
- Novel Coil Header design enables easy access connections & max width coil
- Heat Exchanger performance maximised at low water flow requirements
- Low Pressure Drop air side (12Pa @ 3,000m<sup>3</sup>/hr)
- Low Pressure Drop water side (24kPa @ 25 lpm)
- Wide coil width (450mm) gives greatest coil face area on the market
- N+1 Redundancy EC Hot Swappable Fans, hinged fan doors for access
- Fan speed controlled via Differential Pressure or Temperature
- Low Power Consumption EC fans 92W total @ 3,000m<sup>3</sup>/hr
- Low water volume, vent and drain capability
- Easy to install, pipe connection options including "Quick Disconnects"
- Robust, welded and painted construction for excellent rigidity
- Optional modulating water valve for "Air Off" temperature control
- 7" Colour touchscreen HMI and Microprocessor based controller
- Communication via Modbus RTU over RS485
- Optional Automatic Transfer Switch (ATS)
- 110v or 230v supply options via standard C14 plug in connector (50/60Hz)
- CE, cUL and IEC compliant

**Performance:**

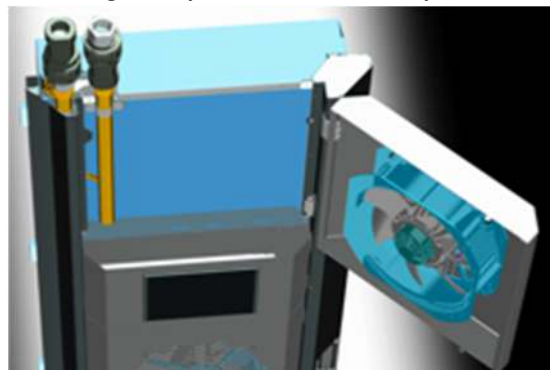


18kW cooling at 20 lpm enables 23 RDHx's per FS400 CDU

36kW cooling at 40 lpm enables 12 RDHx's per FS400 CDU



Removeable Front Cover for connection access

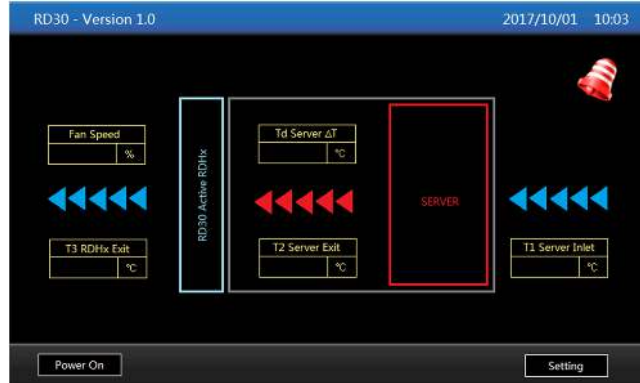


Hinged Fan Access doors with anti short cycling split

**RDHA20 and 30 Specification:**

Rear Door Heat Exchanger Model Number	RDHA020x	RDHA030x
RDHx Design Type	Active 2 Row Coil	Active 3 Row Coil
Nominal Cooling Capacity	18kW	35kW
Nominal Airflow	3,000m <sup>3</sup> /hr	5,400m <sup>3</sup> /hr
Airside Pressure Drop at Nominal Airflow	12 Pa	49 Pa
Nominal Water Flow	20 lpm	40 lpm
Waterside Pressure Drop at Nominal Cooling Capacity	20 kPa	50 kPa
Water Temp at Nominal Cooling Capacity	16 Deg C	16 Deg C
Rack Air On Temp at Nominal Cooling Capacity	27 Deg C	27 Deg C
Number of Rear Door Heat Exchangers per FS400 CDU	23	12
Coolant Type	Water	Water
Coolant Volume	6.3 Litres	8.3 Litres
Pressure Rating	10 bar	10 bar
Power Consumption at Nominal Airflow	92 W	324 W
Water Connections	¾" Top or Bottom	¾ or 1" Top or Bottom
Coil Construction	Cu Tube Al Fins	Cu Tube Al Fins
Dimensions Including Adaptor Frame (H x W x D) mm	2000 x 600 x 200	2000 x 600 x 200
Weight Including Adaptor Frame	85 kg	90 kg
Noise Level at 3m (10ft)	58 dB (A)	68 dB (A)
Power Supply – Single Phase	110/230v 50/60Hz	110/230v 50/60Hz
Dual Power Feeds (ATS)	Optional	Optional
Modulating Water Control Valve	Optional	Optional
Communications	Modbus (RS485)	Modbus (RS485)
Differential Pressure Transducer	Optional	Optional
Temperature Sensors	6 x NTC	6 x NTC
Air Vents and Drain Valves	Top and Bottom	Top and Bottom
Agency Approvals and Certification	CE, cUL, RoHS	CE, cUL, RoHS

**Control Features:**

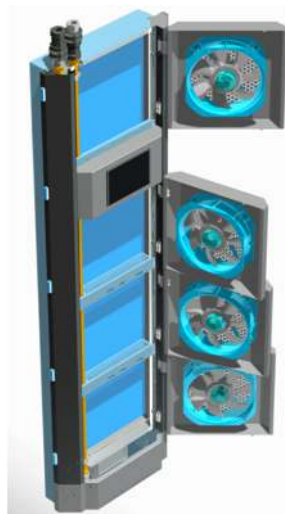
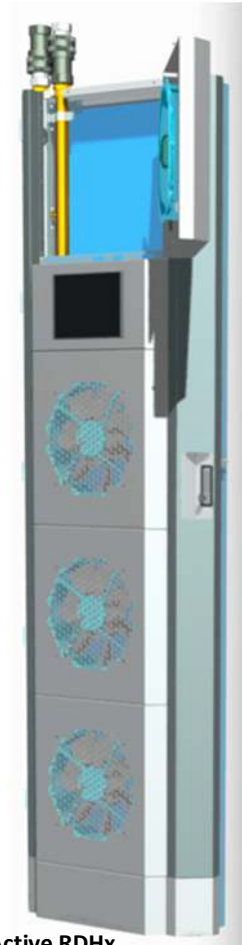


**Monitoring:**

- Fan Speed
- Rack Inlet Temperature
- Door Inlet Temperature
- Door Outlet Temperature
- Coil Differential Pressure

**Alarms for:**

- Fan Failure
- Fan High/Low Speed
- Sensor Failure
- Communication Failure



RDHx – Fan Doors Open



RDHx's – Typical Installation