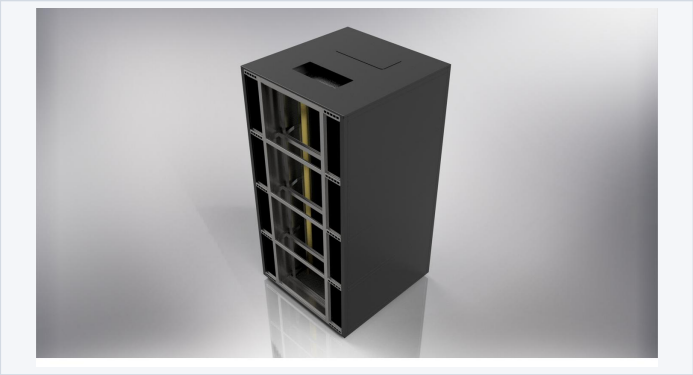


Server Cooling Rack

AIR-TO-WATER COOLING

Integrated rear-door cooling unit · 50–100 kW (water) · plug-and-play, rack-compatible



Front view (door closed) & internal rack view

1. OVERVIEW	
Type	Integrated rear-door air-to-water cooling unit (fan-assisted)
Rated cooling capacity	50–100 kW (water)
Cooling method	Air-to-water heat exchange; rear-door drycooler coil
Cooling medium	Water or oil
Density class	High-density rack cooling, up to 100 kW per rack
Installation	Plug-and-play; rear access for quick swap & maintenance

2. DIMENSIONS & CONSTRUCTION	
Overall L × W × H	72.3 × 47.5 × 95.0 in
Overall (metric)	1.84 × 1.21 × 2.41 m
Unit weight (dry)	950 lb (431 kg)
Operating weight (filled)	~992 lb (450 kg)
Coil internal volume	5 US gal (19 L)
Housing material	Sheet metal, painted / powder-coated exterior
Access	Rear-door, swing-open for rack service

3. COMPATIBLE SERVER RACK	
Designed for rack size	36.1 (L) × 24.0 (W) × 90.0 (H) in
Rack standard	19 in equipment, EIA-310-D compatible
Rack height class	≈ 48U
Rack width	24 in (600 mm), standard
Compatibility	All standard server racks
Custom sizes	Available upon request

4. AIR-TO-WATER COOLER (HEAT EXCHANGER)	
Heat-exchanger type	Finned-tube air-to-water coil (rear-door)
Rated cooling capacity	50–100 kW (water)
Number of coils	1
Coil material	Aluminum
Coil internal volume	5 US gal (19 L)
Water flow rate (design)	~60–120 L/min (16–32 GPM) for 50–100 kW
Water inlet temperature	38 °C
Water outlet temperature	50 °C
Water-side pressure drop	≈ 40 kPa (typical, at max flow)
Max working pressure	≤ 10 bar (145 psi)
Fluid	Water or oil; glycol mixtures supported

5. AIR SIDE & FANS	
Number of fans	16 × 12 in (305 mm) axial
Airflow direction	Front-to-back (rack exhaust through coil)
Air flow (max)	~12,000 CFM (20,400 m ³ /h)
Fan control	Variable-speed on outlet-air temperature
Sound level	~75 dB(A) (typical)

7. MONITORING & CONTROLS	
Leak detection	Integrated leak / drip detection
Sensing	Air & water temperature, humidity, pressure
Fan control	Automatic speed control on outlet-air temperature
Communications	SNMP / Modbus / web UI (optional)
Fan redundancy	N+1 (optional)

6. CONNECTION & INTERFACE	
Power input (drycooler)	380/480 V – 3 Phase, 50/60 Hz
Fluid inlet / outlet	2 in aluminum adapter, NPL (2 total)
Feed orientation	Top or bottom
Working fluid	Water or oil
Coil material	Aluminum

8. OPERATING ENVIRONMENT	
Ambient temperature	5 – 40 °C (indoor / data-center)
Relative humidity	20 – 80 % RH, non-condensing
Altitude	≤ 1,000 m
Water requirement	Supply temperature above room dew point

■ Performance figures are design / typical values; actual capacity depends on water supply temperature, water flow rate and rack airflow. Water temperature must remain above the room dew point unless dew-point control is provided. Monitoring, communications and fan-redundancy items are typical / optional — confirm configuration with the factory.