



Datasheet

Modulair Fan Wall Unit

Bespoke AHU Solutions



Modulair Fan Wall Unit

At Modulair, we deliver air handling units at scale through close collaboration with leading data centre operators. Purpose-built for mission-critical environments, our solutions are engineered to provide exceptional reliability, precision, and energy efficiency.

Our Fan Wall AHU range is developed to meet the evolving demands of modern data centres. Combining advanced engineering with a flexible design approach, we create bespoke solutions that align seamlessly with each project’s unique requirements. Every system is optimised to deliver consistent, high-performance cooling while supporting operational efficiency and uptime. By working in true partnership with our clients, Modulair ensures the delivery of customised, dependable air handling solutions that support your infrastructure at every stage.



Real Time Air Cooling



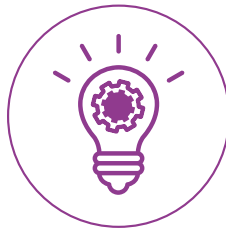
Built For Modularity



Efficiency



Quality



Innovation

Fan Wall products

eDCC018	eDCC028	eDCC038
Height (mm): 2760	Height (mm): 2760	Height (mm): 2760
Width (mm): 2600	Width (mm): 3890	Width (mm): 5140
Length (mm): 2330	Length (mm): 2330	Length (mm): 2330
Weight (kg empty/service): 1475/1725	Weight (kg empty/service): 1990/2340	Weight (kg empty/service): 2480/2925
Flow rate (m3/s): 13.89	Flow rate (m3/s): 20.83	Flow rate (m3/s): 27.78
Pressure Drop (Pa): 100	Pressure Drop (Pa): 100	Pressure Drop (Pa): 100
Cooling Power* (kW): 206	Cooling Power* (kW): 310	Cooling Power* (kW): 413
Load Loss (kPa): 28	Load Loss (kPa): 26	Load Loss (kPa): 22
Cooling Power** kW:223	Cooling Power** kW:335	Cooling Power** kW:447
Load Loss (kPa): 22	Load Loss (kPa): 25	Load Loss (kPa): 25
		* Conditions Air 36°C/30% - 24°C - Water 20/28°C
		** Conditions Air 38°C/25% - 25°C - Water 20/30°C

Fans

- Plug-fan with EC motor
- Fanwall with 4, 6 or 8 fans
- Active filter for power factor correction = 0.99
- Total Harmonic Distortion ≤ 5%

Filters

- Pleated filters
- ePM10 70% - ISO 16890 (M5 - EN779:2012)
- Alternatively Coarse 70% - ISO 16890 (G4 - EN779:2012)

Control

- Integrated command and control electrical panel
- Dual ATS power supply
- Modbus TCP/IP or RTU and BACnet communication protocol
- Monitoring and control via web browser and/or HMI Display
- Control philosophy based on closed-loop PID system, incorporating redundancy, fault tolerance, and fault detection algorithms
- UPS for quick response in case of power failure
- Energy Meter

Cooling

- High performance cooling coils for optimized thermal efficiency
- Copper tubes
- Aluminium fins
- Stainless steel condensate tray

Smart Intelligent Control Valve with power, temperature and water flow control:

- Monitoring inlet and outlet water temperature
- Thermal Power Consumption
- Communication via Modbus or BACnet and monitoring via Android and IOS

Damper

- Multi-blade damper
- Equipped with 3 position actuators, spring return and limit switches



Technical characteristics

- Structure in 60 mm aluminium profile with thermal break, T2, TB2 – EN 1886:2007
- Double panels, interior and exterior Magnelis ZM310 sheet, 50 mm thick rock wool insulation
- Panels fixed to the structure using bit with double sealing
- Air tightness class L1 – EN 1886:2007
- Mechanical resistance class D1 – EN 1886:2007
- Access doors using hinges and quick-opening latches with lock
- Easier maintenance with front access to fans and panels

Modulair Fan Wall Unit Product Features

- Modular construction for serviceability
- Efficient electronically commuted fans
- Expandable system to include VCDs (volume control dampers), filters, coils, fans
- Designed to suit your architectural and mechanical requirements

Certified performance

Performance tested and certified in an accredited laboratory in Germany, according to standard EN1216:2003-04+A1:2002. Test carried out in Essen by DMT GmbH (TUV Nord subsidiary).





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Please note: we reserve the right to change specification or design and supply products which may differ from those described and illustrated without notice and without liability



Always refer to the latest version of the data sheet available on our website

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