NETWORK
ENVIRONMENTS

ENERGY EFFICIENT

FAN WALL

PRODUCT STRUCTURE

The fan wall is air conditioning equipment designed specifically for hot aisle containment technology. It consists of filters, surface coolers, and fans, offering a large air supply area, minimal air supply resistance, and enhanced airflow uniformity.

- **System Components:** High quality components that have been rigorously tested.
- **Control System:** Equipped with self-diagnostic capabilities and early warning features, along with alarm protection measures.
- **Unit structure:** Constructed with a durable steel frame and premium steel panels, lined internally with insulation material to provide soundproofing, thermal insulation, fire resistance, and heat retention.
- **Maintenance and After-Sales Support:** Designed for easy front access, simplifying maintenance tasks, and backed by attentive, scheduled after-sales service. The integration of EC fans ensures maximum cooling efficiency and minimizes energy consumption in air conditioning systems.
- **Production:** The new generation of EC fan is made of aviation-grade composite materials, 3D one-step molding.
- **Design:** The new generation of EC fan adopts excellent aerodynamic design to ensure high efficiency, fast adjustment and low noise.
- **Coordination:** Combined with precise control and adjustment, it provides the best air flow and operating conditions for the computer room.
- **Configuration:** Tailored to customer requirements with flexible configuration of air-conditioning components, including options like high-efficiency filters and humidification features.

PRODUCT FEATURES

Quick Response:

- Real-time monitoring enables the controller to automatically adjust cooling capacity and air volume output in response to heat load changes, ensuring rapid cooling adjustments.
- Adapts to load demands and provides precise temperature and humidity control.

Long Life and Low Cost:

- High modular integration and a compact design, optimizes space utilization and reduces floor area requirements.

EC Fan:

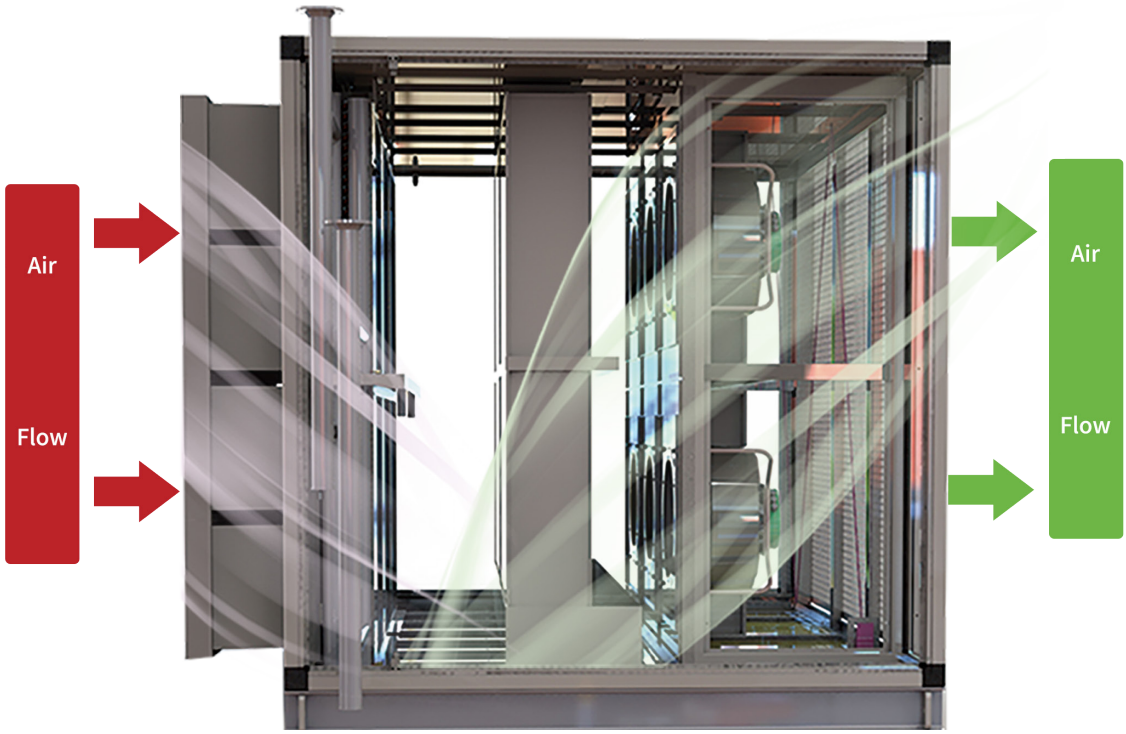
- 0–100% adjustable air volume.
- Energy-efficient electric two-way valve for precise adjustments.
- Safe hot-swappable design allows maintenance without system interruptions.

High Reliability:

- Industrial-grade automatic balance control system and full graphical interface with rotation, group control functions, standard communication protocol for remote operation, and to prolong system lifespan.
- Core components are sourced from renowned suppliers and undergo rigorous multi-process inspections.
- Multiple temperature sensors are installed to monitor various locations in real time, ensuring optimal cooling performance.

Flexible Configuration:

- Suitable for open aisles, closed cold/hot aisles containment, closed cabinets, etc., the air supply distance is short, the power consumption of air transmission is reduced, and the energy consumption of fans is reduced.
- Standard RS485 interface and optional network interface.
- Upper and lower wiring/piping configurations, allowing flexible adaptation to site conditions. The modular design enhances the ease of unit expansion.



TECHNICAL DATA

Model	Cooling Capacity (Kw)	Air Volume (m/h)	High External Pressure (Pa)	Water Side Pressure Drop (Kpa)	Fan Quantity	Rated Power	Interface Specification	Unit Size (mm)
800-AC-CW220	220	55000	150	55	4	10.4	DN80	2700, 2350, 1500
800-AC-CW250	250	62500	150	55	4	12.3	DN80	2700, 2350, 1500
800-AC-CW270	270	68000	150	45	6	12.5	DN100	2800, 2000, 1500
800-AC-CW320	320	8000	150	45	3	15.6	DN100	3000, 3100, 1500
800-AC-CW360	360	9000	150	50	3	17.7	DN100	3000, 3350, 1500
800-AC-CW430	430	10500	150	50	3	20.3	DN8125	3000, 3800, 1000

1. Return Air 37 °C/ 25 HR; Supply air 25° C
2. Water temperature 15 / 21 °C; Filter class G4

OTHER OPTIONS

- Standard 7-inch touch screen display.
- Optional ATS dual power switch for enhanced reliability.
- Integrated infinitely adjustable water valve for precise control.
- Optional water temperature sensors for inlet and outlet monitoring.
- Optional filters available in various grades, equipped with filter pressure differential monitoring.
- Equipment available with customizable anti-corrosion grades to suit specific requirements.
- Configurable airflow direction with options for blowing or suction modes.

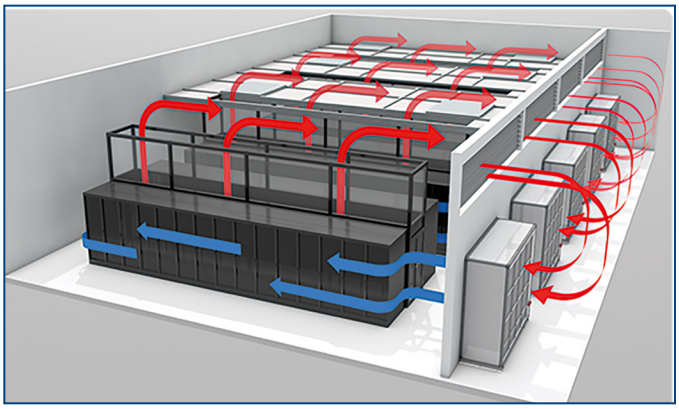
ADDITIONAL BENEFITS

Energy Savings:

- With a wider airflow channel and reduced wind resistance, the fan wall offers more space for fan installation, minimizing interference between fans. This results in a more than 10% increase in fan utilization compared to conventional precision air conditioners, leading to an overall energy savings of 10%-15%.

Excellent Airflow:

- The fan wall features a large air outlet surface, delivering cooling airflow into the machine room at low speed and steadily. This creates a uniform cold airflow across the cross-section of the cold aisle.

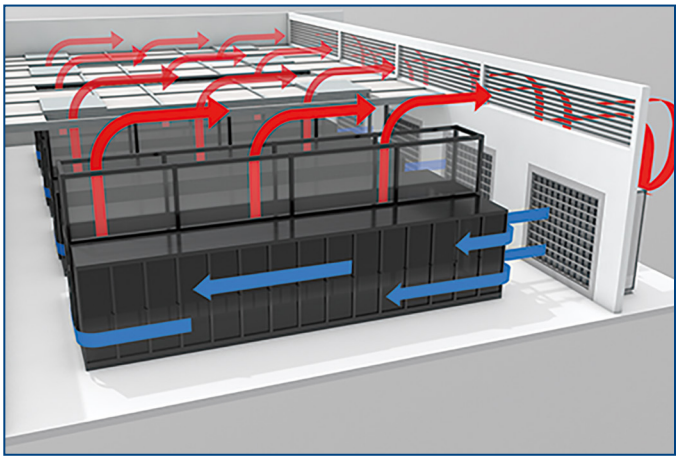


Increased Machine Room Cabinet Utilization Rate:

- There is no need for raised floors, and the sizes of hot and cold aisles are not constrained by floor dimensions. The optimal configuration can be calculated based on the IT load, saving data center space and increasing cabinet utilization efficiency.

Implementable in both low-rise and high-rise scenarios:

- Conventional floor air supply scenarios require a high ceiling in the data center. When the building height is insufficient, side air supply through fan walls can be considered as a solution.



Pair-able with high-density cabinets:

- Fan wall products are characterized by flat air supply, a large air supply area, and low airflow velocity. They can deliver more cooling airflow within the same footprint, making them suitable for cooling higher-power IT equipment.

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