

MC1000

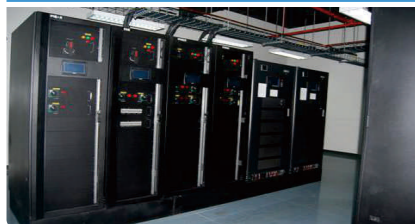
EAST MC1000 series is a new generation of small / micro modular data center solution that integrates the basic data center equipment of the power supply and distribution system, UPS system, refrigeration system, emergency ventilation module, cabinet and airflow management, wiring and monitoring management system into one or multiple closed cabinets. One set of cabinet is a complete data center. When the capacity of the user device is not large but its quantity is large, MC1000 can use multiple cabinets to perform on-site parallel installation, which can provide more IT equipment installation space. If MC1000 single-cabinet solution is used, it can be expanded to MC1000 multiple cabinet solution via adding configuration (up to 4 cabinets can be supported).

MC1000 is a representative of a micro data center, which speeds up the construction of micro data center and featured with high efficiency, reliability, agility and intelligence.



Applications

Small/micro data center



Distributed business networks



Branches of large companies



Small and medium network access points



IT equipment area/room of small and medium-sized enterprises



Logistics and warehousing IT workstation



Features

Simplified installation

- MC1000 overall system standard modular structure design, each sub-module is highly versatile. The sub-modules of MC1000 are prefabricated by factory and can be assembled on site, which has low requirement for installation place. The equipment can be put into use immediately after the arrival. In the process of utilization, it only needs one monitoring and management system during use with no need of facing multiple interfaces.

High efficiency

- DC frequency conversion rack-mounted air conditioner, air conditioner structure is compact, and enhance the available space of IT equipment.
- MC1000 adopts hot-cold aisle containment, DC frequency conversion refrigeration and high efficiency UPS, the PUE value is industry-leading.

Flexibility

- Overall system standard modular structure design, each sub-module is highly versatile. Multiple solutions can be implemented by combining them as needed.
- The later stage can realize expansion easily.

Reliability

- MC1000 adopts hot-cold aisle containment, natural cooling and cold aisle containment to adapt to multiple environments.
- Overall system standard modular structure design can avoid system design problems.
- System fault-tolerant design is high reliability.
- Strong and weak current separation design can make less electromagnetic interference.

Intelligence

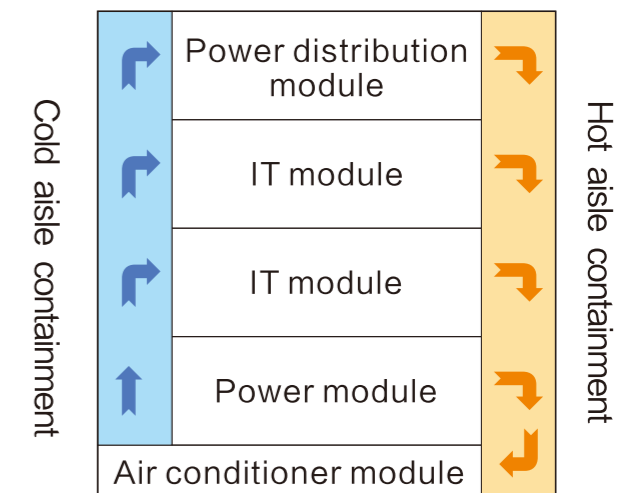
- MC1000 has built-in monitoring and management system and is configured with 10.1-inch industrial touch screen that can be used not only to view the parameters of the power supply and distribution, air conditioner, environmental variable and UPS but also to remotely monitor the operating parameters inside MC1000. Moreover, it can be connected to the superior monitoring platform via the internet for multi-network centralized monitoring and efficient management.

Technical Data

Overall system parameters	Single module supports the number of cabinet	1 - 4
	Max. available space	158U (4 cabinets, without battery pack, 18 kW)
	Aisle type	Single cabinet or multiple cabinets in single row, natural cooling / closed cold aisle / closed hot aisle
	Power density range	3 - 8 kW / cabinet
	Battery deployment	Battery pack, battery cabinet, battery rack
	Battery backup time	15 min - 240 min
	Installation	Concrete ground, raised flooring
	Power mode	Single-phase input and single-phase output
	System protection grade	IP20
Operating temperature	-20°C ~ 45°C	
Cabinet system	Natural cooling	600 × 1200 × 2000 mm (excluding casters and adjusting feet, front and rear high density ventilation mesh doors)
	Cold aisle containment	600 × 1200 × 2000 mm (excluding casters and adjusting feet, front glass door and rear mesh door)
	Hot-cold aisle containment	600 × 1200 / 1400 × 2000 mm (excluding casters and adjusting feet, front and rear glass doors)
	IP rating	IP20 (mesh door) / IP50 (glass door)
Refrigeration system	Input power	220 Vac
	Refrigerating capacity	4.5 kW (4U) / 8 kW (10U) / 15 kW (12U)
	Air conditioner configuration	1+0、1+1、2+0、2+1
	Sensible heat factor (sensible cooling capacity / total cooling capacity)	1
	Refrigerant	R410A
	Air supply method	Supply air in front and return air in the rear
Power supply and distribution system	Installation	Rack-mounted
	Power input	Single-phase three-wire
	UPS capacity	3 kVA / 6 kVA / 10 kVA
	UPS configuration	N / N+1 / 2N (N ≤ 4)
	UPS rated input voltage	220 Vac
	UPS input voltage range	110 ~ 300 Vac
	UPS output power factor	0.8 / 0.9
	UPS rated output voltage	220 Vac
	UPS overall efficiency	92%
	Maintenance bypass	Standard configuration
	Mains power feed-out way	4 air conditioners and fire-fighting systems
Monitoring system	UPS feed-out way	4 IT
	AC lightning protection	B / C grade
	Monitoring system host	Linux system, high-performance CPU, strong data processing capacity
	Local interface	10.1-inch industrial touch screen
	Leakage	Standard configuration
	Smoke detection	Standard configuration
	Temperature and humidity	Standard configuration
	Automatic bomb door device	Optional configuration
	Magnetometer	Optional configuration
	Power supply and distribution / UPS / air conditioner monitoring	Standard configuration
Northbound communication interface	RJ45	
Protocol format	Modbus TCP/IP	

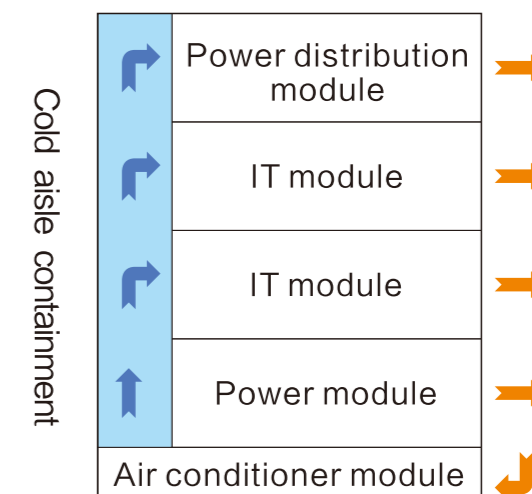
MC1000 Hot-cold Aisle Containment Solution

With hot-cold aisle containment solution, air conditioner system must be configured for cooling. The solution not only fully isolates the hot and cold airflows, but also improves the effective utilization of the cooling capacity, while completely eliminates the impact of external air quality problems on IT equipment.



MC1000 Cold Aisle Containment Solution

With cold aisle containment solution, air conditioner system must be configured for cooling. The solution only closes the IT inlet area, ensuring that IT equipment is in a relatively good air quality environment, and the IT outlet area is connected to the machine room in an open way.



MC1000 Natural Cooling Solution

With natural cooling solution, there is no need to configure an air conditioning system. The front and rear doors of the cabinet are equipped with mesh doors, which make use of the cooling system of IT equipment to cool down naturally. In this solution, civil air conditioners or temperature control systems in other rooms are generally used in the machine room to keep the indoor temperature from overheating.

