

EAST “Module Cube” Modular Data Center Solutions

Powering your data,
protecting your business



MC2000

This new generation of AI -powered modular solutions deeply integrates core systems such as power supply and distribution, UPS , cooling, intelligent airflow management, and end-to-end monitoring into a single-row architecture. Factory-prefabricated modular design eliminates the need for engineering, completely revolutionizing traditional construction methods! Three innovative advantages define a new industry standard:

Green and low-carbon, a pioneer in carbon neutrality: Adopting fully enclosed hot and cold aisle systems and AI dynamic energy efficiency optimization, with a PUE as low as 1.15 , it is suitable for remote edge nodes and reduces operation and maintenance energy consumption by 30% .

Intelligent edge computing, plug-and-play for business applications: Designed specifically for cloud-native applications and edge computing scenarios, it seamlessly integrates with public / private clouds, accelerating AI inference and real-time data processing. The intelligent monitoring system predicts faults in real time, reducing maintenance costs by 50% and truly achieving “unattended operation”.

Future-ready, with boundless flexible expansion: Highly integrated, ready to use on-site; modular assembly for 300% faster expansion. Adaptable to all scenarios including retail, healthcare, and industrial IoT.



Applications



Transportation



Government
and Enterprise



Operators



Education



Finance

MC1000

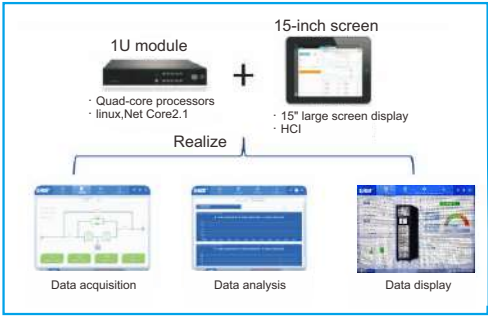
Cabinet System



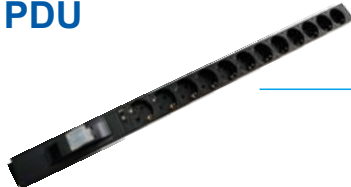
A standard 19-inch rack, GB/T3047.2-92
Tempered glass/meshes for front door of the rack
Back door with meshes, ventilation rate at 75%~80%
Material: cold-rolled steel, thickness of the angle gauge at 2.0mm
Color: black(RAL9004)

- Flange cover: 1U
- Rail: 19-inch, black, maximum stroke 800mm
- Tray: 19-inch, W 480*D 800mm, black
- Door contact&Spring door device

Monitoring System



PDU



Refrigeration System



4kW AC(Standard glass door)

- Input: AC 220V
- Refrigerant: R410A
- Refrigerating capacity: 4kW
- Internal circulating air: 800m³/h
- Noise: 58dB(A)
- Mounting: Rack-mounted 5U, Depth 715mm
(a clearance of 1 U at the top and bottom is required for ventilation)
- Weight: 27kg

UPS



- UPS/Battery bank unit: 1~10kW;
- 2~3U modular design;
- Output power factor 0.9;
- DC cold start, switching on the UPS with battery;
- Frequency conversion function, supporting 50Hz input/60Hz output or 60Hz input/50Hz output;
- Intelligent monitoring, flexible setting of battery low voltage protection.

Power Distribution System



Intelligent PDU:

- 3 U modular design
- Intelligent power acquisition: mains input voltage/current/frequency/power
- Branch output voltage/current/frequency/power, electric parameters, breakers ON/OFF status
- Well-known brands of switches, class C SPD 20 kA

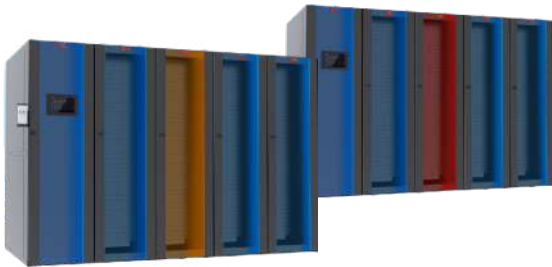
MC1000



Smart Lighting

Status Visualization

- Blue: Normal operation. All indicators within preset limits. System running smoothly.
- Yellow: Warning. Temperature/humidity out of range, IT load approaching threshold, or component (such as cooling fans) on the verge of redundancy failure, alerting operations and maintenance personnel to pay attention or plan maintenance.
- Red: Emergency. This alert indicates a risk of server downtime due to smoke detection, excessively high temperatures, UPS malfunction, or unauthorized intrusion. Directs maintenance staff to the fault source immediately.



Intelligent Linkage

- The light turns on when someone arrives and turns off when they leave: When personnel are detected approaching or the end door is opened, the lights automatically turn on to 100% brightness to provide ample illumination for maintenance operations; when personnel leave and the passage door is closed, the lights automatically turn off after a 30-second delay.
- Facial recognition linkage: When maintenance personnel successfully authenticate through the access control system, the light turns green.
- Atmosphere and emergency guidance: When a fire alarm is triggered, the lighting system automatically switches to dynamic flow indication to guide personnel to quickly evacuate the passage.

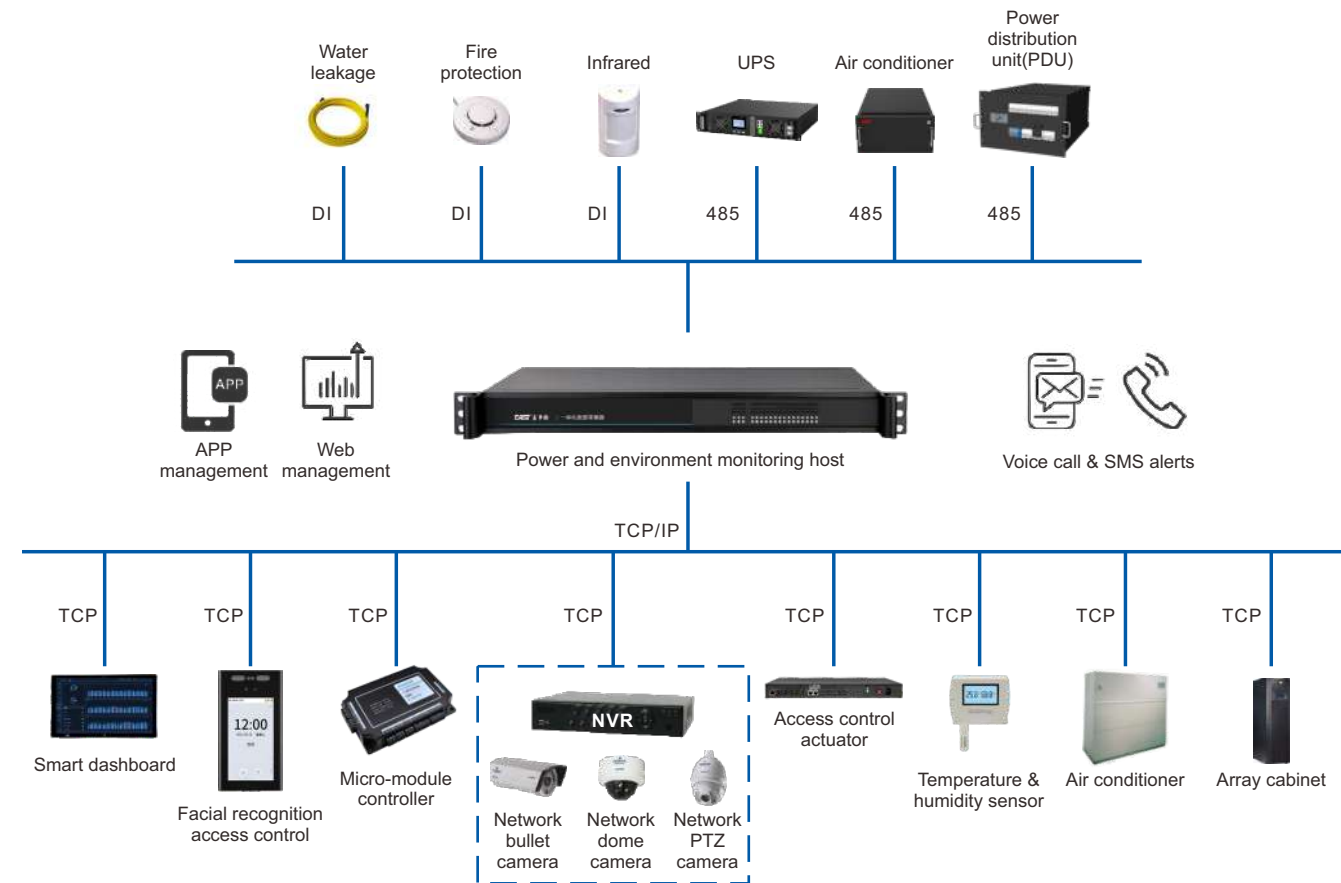


Specification

Single Cabinet		MC1000	MC2000
System	Function cabinet	Standard configuration, 42U, a maximum of available space 26U	
	IT cabinet	Optional configuration, 42U, a maximum of available space 40U	
	Aisle type	Cold aisle containment	
	Power density range	13kW	6~72kW
	Battery deployment mode	Battery banks, battery cabinets, battery racks	
	Power mode	220VAC, 50/60HZ, L+N+PE	380/400/415VAC, 50/60Hz, 3Ph+N+PE
	Installation method	Cement floor/elevated floor	
	Operating temperature	-20°C~+45°C	
	IP rating	IP 20	IP50
Cabinet	Battery type	Lithium-ion battery/Lead-acid battery	Lead-acid battery
	Dimensions (W×D×H)(mm)	600×1200×2000mm(excluding casters and anchor)	600×1400×2000mm(excluding casters and anchor)
	Front door	Glass door, Spring door device	Glass door, Spring door device
	Back door	Mesh door	Glass door, Spring door device or panel beating door, spring door
Refrigeration system	Input power supply	220~230Vac/50~60Hz	
	Refrigerating capacity	4kW	4.0kW, 8.0kW, 15kW
	Space	5U	5U/8U/10U
	Sensible heat factor	1	N, N+1
	Communication interface	485	
	Air supply method	Supply air in front and return air in the rear	
	Refrigerant	R410A	R410A
	Installation	Integrated rack-mounted	Rack-mounted, Row-mounted
Power supply and distribution system	Power input	Single-phase three-wire	Single-phase three-wire/Three-phase five-wire
	UPS capacity	6kVA/10kVA	6kVA/10kVA/ 20kVA/30kVA/40kVA/60kVA
	UPS configuration	N	N, N+1, 2N
	UPS rated input voltage	220/230/240Vac single-phase	220/230/240Vac single-phase, 380/400/415Vac three-phase
	UPS input voltage range	80~280Vac single-phase	80~280Vac single-phase, 228~485Vac three-phase
	UPS output power factor	1	1
	UPS rated output voltage	220/230/240Vac single-phase	220/230/240Vac single-phase, 380/400/415Vac three-phase
	UPS overall efficiency	≥95%	
	Maintenance bypass	Support	
	Battery type	Lead-acid battery, lithium battery	
	Battery deployment	Battery pack	Battery pack, battery cabinet, battery rack
	Battery backup time	15min - 240min, configure according to actual needs	
	Mains power feed-out ways	2 ways IT+air conditioner	4/9/12 ways IT+air conditioner+fire-fighting systems+lighting+communication
	UPS feed-out ways	2 ways IT	4/9/12 ways IT
	AC lightning protection	Class C	
	PDU	Ordinary: support IEC or national standard socket	
Monitoring system	Monitoring system host	Support Web direct access and centralized monitoring of multiple sites	
	Local interface	15-inch industrial touch screen	10.1-inch industrial touch screen
	Standard configuration	Water leak detector, smoke detector, temperature distribution/UPS/air conditioner monitoring	Water leak detector, smoke detector, temperature and humidity sensor, cabinet light strip, door sensor, SMS alarm/router, power supply and distribution/UPS/air conditioner monitoring
	Optional configuration	/	Automatic spring door device, fresh air module, camera/audible and visual alarm/infrared, firefighting module, Face module
	Protocol format	Modbus TCP/IP	

Streamlined Delivery

System Network Diagram



Fast Delivery, Easy Installation

- **Factory prefabrication, plug and play:** All cabinets, power distribution, cooling, and monitoring components are pre-installed, pre-commissioned, and pre-wired at the factory.
- **Minimal on-site work:** Only main power, network, and grounding connections are required on site. Low-power air conditioners need no copper pipe welding or on-site cutting, shortening the construction period by up to 80%.
- **Flexible expansion:** Supports on-demand configuration, allowing rapid addition of cabinets or power modules as business grows, with zero disruption to existing operations.



Cases

Qinhuai River Management Office Information Project

This project features EAST's new MC2000 single-row micro-module system, a one-stop micro data center solution that integrates air conditioning, rack-mounted UPS, power distribution, power and environment monitoring, and access control into a single system. It provides reliable IT infrastructure support for flood control operations in the Qinhuai River Basin.



Shicheng Smart Tourism Data Center Project

The newly built data center in this commercial complex features a single-row micro-module solution with 5 server racks deployed. Its streamlined architecture is well-suited to the limited floor space of commercial buildings, while simultaneously meeting the parallel needs of multiple business functions including POS systems, membership management, and office automation.



Chenzhou Industry Communications School Computer Room Project

The newly built data center at Chenzhou Industry Communications School features a single-row micro-module solution with 6 server racks deployed. Its standardized, modular design is well-suited to the limited campus space, while meeting the dual needs of teaching & training and information management.



Youai Hospital Data Center Project

The newly built data center at Youai Hospital features a single-row micro-module solution with 8 server racks deployed. This solution integrates server racks, aisle containment, cooling and power distribution units into a single system. Its integrated, standardized design effectively addresses the challenges of limited space and high energy consumption commonly found in hospital environments.

