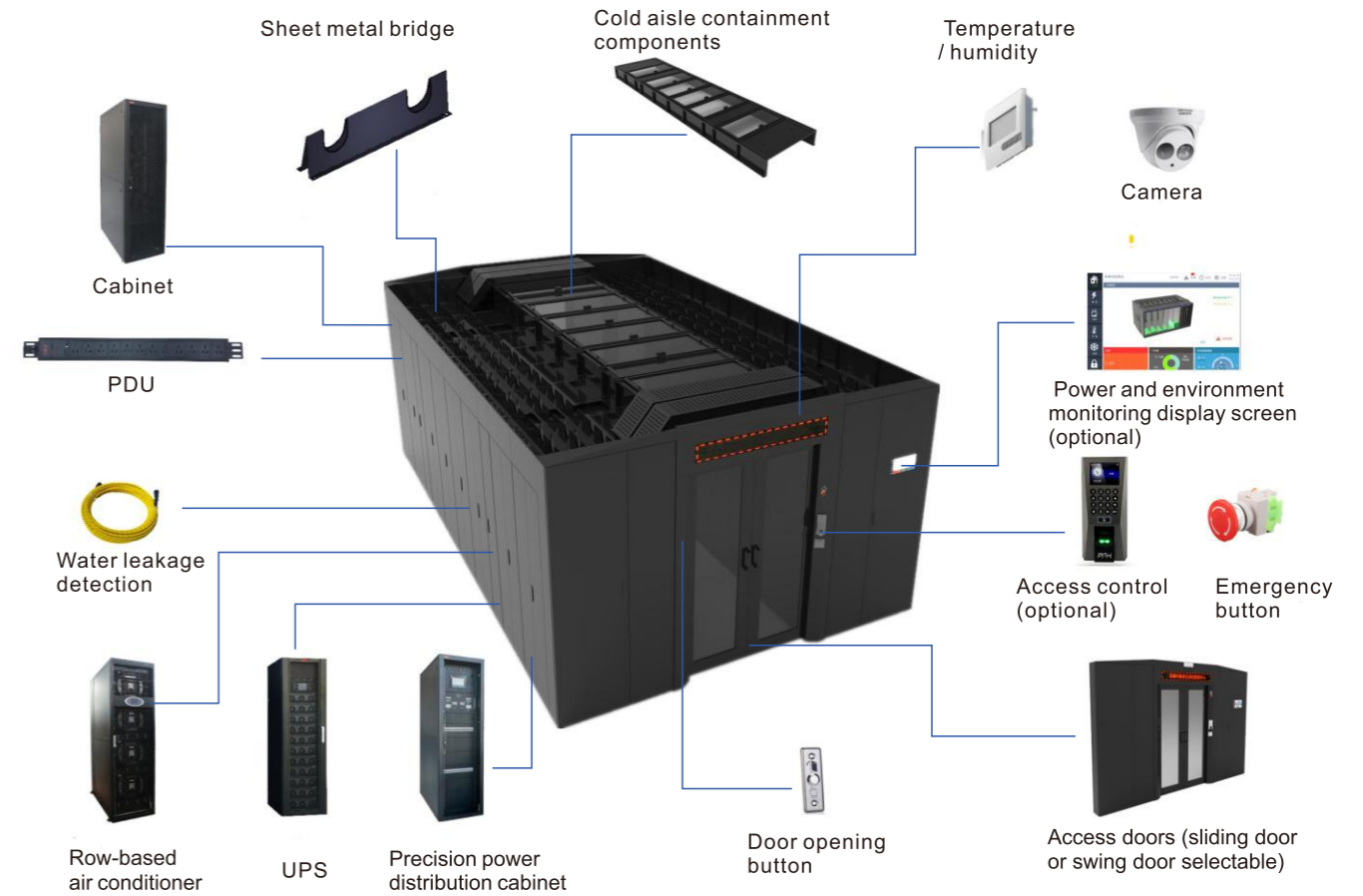# MC6000

MC6000 series micro modular data center is the latest generation of data center infrastructure solution, which integrates all the subsystems like cabinets in the traditional data center, refrigeration, power supply and distribution system, airflow management, firefighting, wiring, security, monitoring and lighting into one. It adopts efficient and reliable modular precision power supply and distribution equipment and system standardization architecture design, which makes components and parts high versatile and factory prefabricated, makes construction period of data centers shorter and later maintenance more convenient and quicker. It is featured with high reliability and high security and enables rapid and flexible deployment and relocation for the whole system.

MC6000 has three types of aisle containment for choice: cold aisle containment, hot aisle containment and hot-cold aisle containment. The access door has a variety of options such as revolving sliding door, automatic or manual translation door, etc., to meet the different needs of customers.
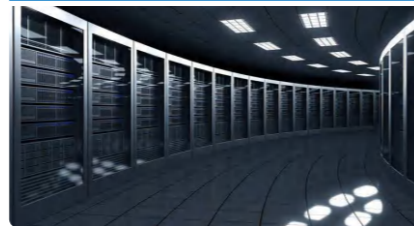
Applications

Medium and large data centers	Information centers of state organs and public institutions	Telecom data centers, information rooms
Data centers of higher education institutions	Data centers of financial institutions	Large educational institutions

Sheet metal bridge
Cold aisle containment components
Temperature / humidity
Camera
Cabinet
PDU
Power and environment monitoring display screen (optional)
Water leakage detection
Access control (optional)
Emergency button
Row-based air conditioner
UPS
Precision power distribution cabinet
Door opening button
Access doors (sliding door or swing door selectable)

Features

Reliability

- System standardization architecture design makes components and parts high versatile and avoids system design problems System fault-tolerant design helps high reliability
- Strong and weak current separation design makes less electromagnetic interference
- Very early fire warning
- Pass 8,9 intensity electrified seismic performance test

High efficiency

- Efficient integrated power supply and distribution, enclosed hot and cold aisles,high power density and energy efficiency
- Support single-row or double-row hot-cold aisle containment in a variety of ways, isolate hot and cold air flow and eliminate local hot spots

Energy conservation

- PUE can be maintained at a lower level through enclosed aisle design, and is more energy efficient than traditional computer room
- Later expansion available, saving investment costs

Simplification

- Standard modular structure design helps to realize modular combination in different sizes and different powers. Product delivery can be completed in 3-6 weeks

Intelligence

- Micro-module monitoring system performs all-round monitoring and unified management on the power distribution, environment, security, fire protection and other equipment inside the micro-module
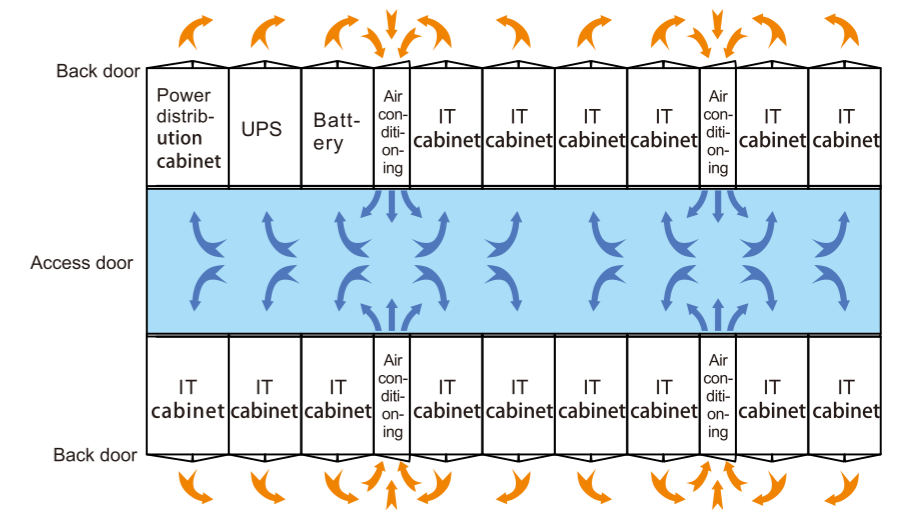- Energy consumption of the micro-module can be analyzed precisely through the precise distribution system

Technical Data

Micro modular system	Dimensions	Single row cold / hot aisle containment (L×W×H)
		L×2465×2550 / 2750 mm, L ≤ 15 m
		L×2365×2550 / 2750 mm, L ≤ 15 m
		L×2265×2550 / 2750 mm, L ≤ 15 m
		Double row cold / hot aisle containment (L×W×H)
		L×3600×2550 / 2750 mm, L ≤ 15 m
		L×3400×2550 / 2750 mm, L ≤ 15 m
		L×3200×2550 / 2750 mm, L ≤ 15 m
	Access doors	Revolving sliding door (concealed door closer, concealed electromagnetic locks design; two installations - access inside / outside are selectable for the power and environment monitoring display screen)
		Translation door (auto / manual are selectable)
	Cabinet quantities of Single module	Single row: 3 - 24 Double row: 6 - 48
	Power mode	AC: 380 / 400 / 415 Vac, 50 / 60 Hz, 3Ph + N + PE
		DC: - 48 / 240 / 336 Vdc
	Single module IT power consumption	Max. 200 kW (Confirm with an engineer for above 200kW)
	Max. power of single cabinet	18 kW
	Operating environment	Ultra-low temperature condition: -40 ~ 45℃
		T1 condition: -25 ~ 45℃
		T3 condition: -5 ~ 45℃
	Reliability level	Tier II or Tier III (extendable to Tier IV)
	Altitude	0 - 1000 m (downgrading for above 1000 m)
Cabinet	Dimensions (W×D×H)	600 / 800x1200x2000 / 2200 mm
		600 / 800x1100x2000 / 2200 mm
		600 / 800x1000x2000 / 2200 mm
	Available space	42U / 47U
	IP rating	IP20
Air cooled in-row air conditioner	Refrigerating capacity	12 kW / 25 kW / 40 kW
	Dimensions of internal machine	300 / 600x1000 / 1100 / 1200x2000 / 2200 mm
	Input power supply	AC: 380 / 400 / 415 Vac, 50 / 60 Hz (optional DC: 240 / 336 Vdc)
	Refrigerant	R410A
	Fluorine pump	Optional
Chilled water in-row air conditioner	Refrigerating capacity	12 kW□70 kW
	Dimensions of internal machine	300 / 600x1000 / 1100 / 1200x2000 / 2200 mm
	Input power supply	AC: 380 / 400 / 415 Vac, 50 / 60 Hz (optional DC: 240 / 336 Vdc)
	Refrigerant	Water / ethylene glycol aqueous solution
Integrated UPS (built-in UPS)	Input voltage	380 / 400 / 415 Vac, 50 / 60 Hz, 3Ph + N + PE
	Input power factor	> 0.99 (full load), > 0.98 (half load)
	Rated capacity	50 ~ 200 kVA
	Efficiency	≥ 96%
	AC lightning protection	Class B, C
Modular power distribution cabinet (external UPS)	Input voltage	380 / 400 / 415 Vac, 50 / 60 Hz, 3Ph + N + PE
	Rated capacity	500 A
	AC lightning protection	Class B, C

Note: 1.Different batteries can be configured by customers for getting different backup time.
     2.If choose air-cooled air conditioner, optional cryogenic components are needed when outside temperature is below -15℃
     3.Cabinet fire protection without piping system is selectable for hot-cold aisle containment solution.
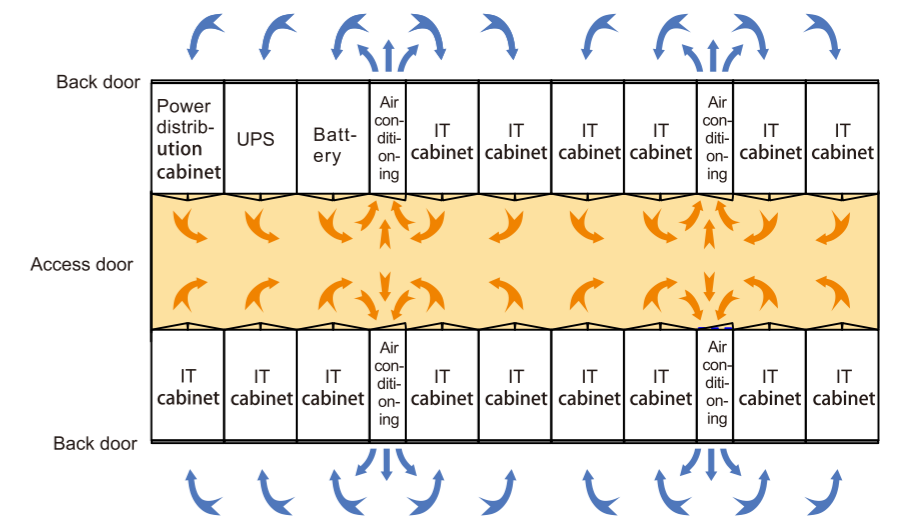
MC6000 Cold Aisle Containment Solution

MC6000 cold aisle containment solution makes the cabinet placed face to face, closes the cold aisle on the front of cabinets to make utilization of their cooling capacity higher. The external of MC6000 module is a thermal environment, there is no need to refrigerate the external environment to avoid cold waste. It is especially suitable for data centers built in batches.

MC6000 Hot Aisle Containment Solution

MC6000 hot aisle containment solution makes the cabinet placed back to back, closes the hot aisle on the back of cabinets to raise the return air temperature of the air conditioning in the machine room, so as to improve the cooling efficiency of the air conditioning. Meanwhile, the machine room is in cold environment, maintenance personnel feel more comfortable. It is suitable for machine room with low loads or high maintenance frequency.

MC6000 Hot-cold Aisle Containment Solution

MC6000 hot-cold aisle containment solution is the solution that closes both cold aisle and hot aisle. It has the both advantages of high utilization of cooling capacity when closing cold aisle and improving refrigerating efficiency of air conditioner when closing hot aisle. This solution has the better energy saving effect.
MC6000 hot-cold aisle containment solution has not much requirement for ambient environment and has stronger adaptability. This solution is applicable for most applied occasions.