

Modular Data Center

FusionModule800 Smart Small Data Center

Introduction

FusionModule800 Smart Small Data Center is a new-generation data center solution. It is integrated with PDU, UPS, monitoring, cooling and rack system in a comprehensive cabinet to save space. IT cabinets can be deployed flexibly on both sides of it. A single module supports 8 cabinets at most and IT load no more than 15kW. The power density is up to 7kW/R. Cold/hot aisle lowers the PUE to 1.37.

Application Scenarios

- Bank branches and outlets, education, medical, or public security organizations, small-and medium-sized enterprises, and retail merchandising, carrier business halls, etc.
- Indoor modular data center
- Tier I or Tier II construction

Features & Value

Simple

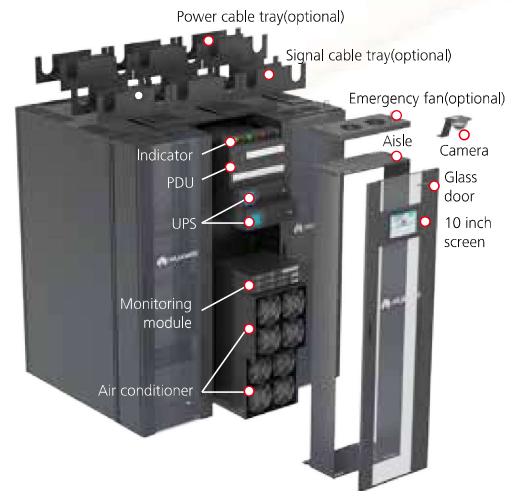
- PDU, UPS, monitoring and air conditioner are integrated in one cabinet. Cabinets are preassembled in the factory and only need to be combined onsite. This reduces deployment time to be 4 hours only
- Mobile phone APP, SMS alarm, remote web platform monitoring and centralized management for multiple data centers realize unattended operation

Efficient

- In-rack air conditioner saves at least one cabinet installation space
- Frequency conversion refrigeration, hot or cold aisle containment, superior PUE 1.37

Reliable

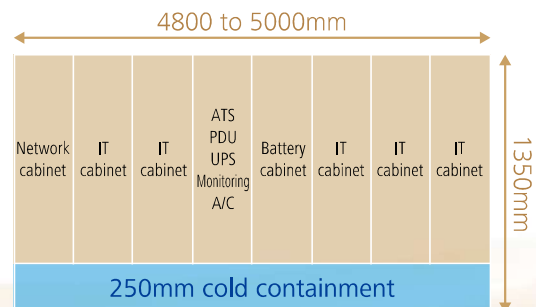
- Dehumidifying at min. 10% IT load avoids condensation risk
- Automatic shutdown for battery overheating to prevent the fire



FusionModule800 Architecture



FusionModule800 Application

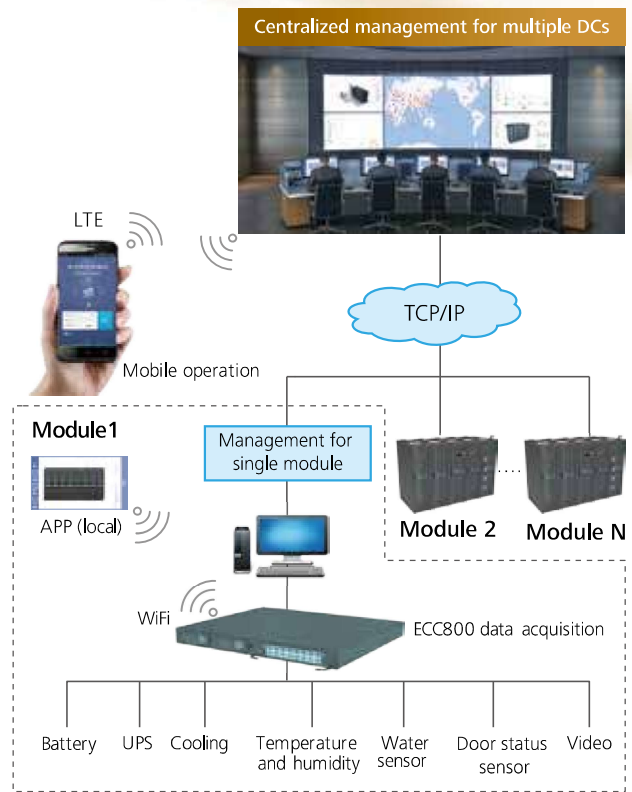


Maximum configuration

Specifications

System features	
Power system	380/400/415Vac, 50Hz, 3Ph+N+PE
Aisle containment	Hot or cold
System protection level	IP20
Ambient temperature	-20°C ~45°C
Maximum cabinet quantity for a module	8
Quantity of IT cabinets	0~6
Maximum IT load	15kW
IT cabinet max load	7kW
IT cabinet weight	Static load 1500kg, Dynamic load 1000kg
Total Dimensions (H × W × D mm)	2000 × (600-5000) × 1350
Air conditioner	
Power system	220/230/240Vac, 50Hz, 1Ph+N+PE
Cooling capacity	11kW ^a
Configuration	1+0, 1+1, 2+0, 2+1
Cooling mode	Direct expansion air-cooled
Sensible heat ratio	≥0.99
Installation	Rack mounted
Air volume	2600m ³ /h
Air supply mode	Front supply, rear return (in-row cooling)
Power Supply and Distribution System	
AC SPD	CLASSII/C, In 20kA, I _{max} 40kA, 8/20us
Input power	Single or dual inputs
UPS capacity	10kVA 20kVA
UPS configuration	N, N+1, 2N
UPS output power factor	0.9
UPS rated output voltage	220/230/240Vac 380/400/415Vac 50/60Hz, 1Ph+N+PE 50/60Hz, 3Ph+N+PE
UPS efficiency	94.5% 95%
Battery backup mode	Battery pack, battery cabinet, battery rack
Backup time	15min/30min
Maintenance bypass	Standard
Intelligent battery monitoring system	Optional
Monitoring system	
Monitoring system	Mobile phone APP, SMS alarm, Web access, centralized management for multiple DCs
10 inch Pad	Standard
Water sensor	Optional
Smoke sensor	Standard
Door status sensor	Optional
Door access control system	Optional (2 most)
Temperature and humidity sensor	Standard
Local mobile app	Standard (ECC APP)
Remote mobile app	Optional (NetEco APP)
SMS alarm	Standard
Camera (4 most)	Optional, camera of module (1 most) Optional, room camera (4 most)

Note: Typical configuration 1, 5 and 6 are only applicable to TierI construction level for enterprise.
a. The cooling capacity is obtained when the indoor dry bulb temperature is 37.8°C , indoor wet bulb temperature is 20.8°C , and outdoor dry bulb temperature is 35°C . The actual cooling capacity varies according to the indoor and outdoor ambient temperatures and relative humidity.

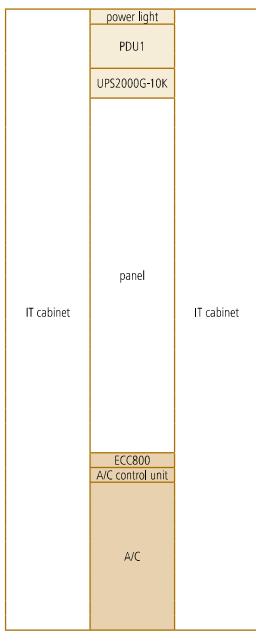


Eight Typical Configurations

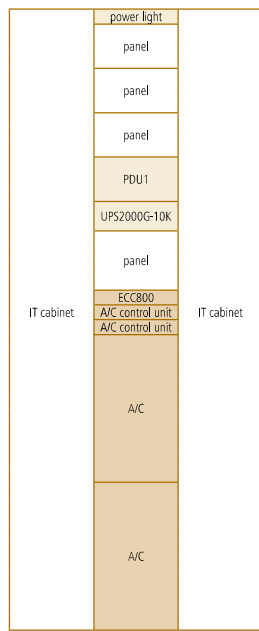
IT load (Normal)	≤ 7.5 KW			
Typical configuration	BC1*	BC2	BC3	BC4
Aisle containment	Hot or cold			
UPS (kVA)	10	10	10+10	10+10
Air conditioner (Cooling only)	1+0	1+1	1+1	1+1
Input power	Single	Single	Single	Dual
rPdu	1	1	2	2
UPS output	4	4	14	14
IT load (Normal)	7.5 kW < IT load ≤ 15 KW			
Typical configuration	BC5*	BC6*	BC7	BC8
Aisle containment	Both hot and cold			
UPS (kVA)	20	20+20	20+20	20+20
Air conditioner (Cooling only)	2+0	2+0	2+1	2+1
Input power	Single	Single	Single	Dual
rPDU	1	2	2	2
UPS output	14	14	14	14

Typical Configurations

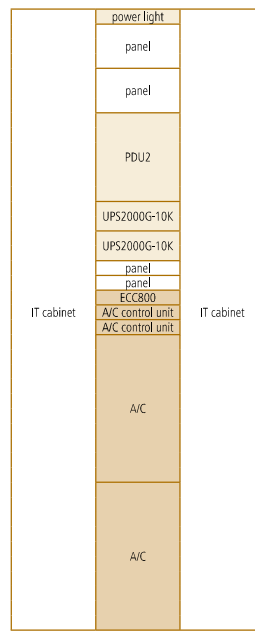
IT load ≤ 7.5 kW



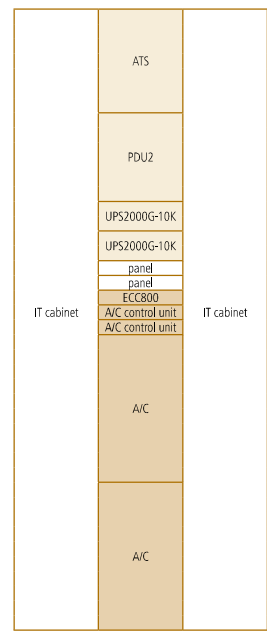
Typical configuration 1



Typical configuration 2



Typical configuration 3



Typical configuration 4

IT load	IT load 7.5KW			
Typical configuration	Typical configuration 1*	Typical configuration 2	Typical configuration 3	Typical configuration 4
Aisle type	Cold aisle			
UPS configuration (KVA)	10	10	10+10	10+10
A/C configuration	1+0	1+1	1+1	1+1
Power input	single	single	single	dual
Rpdu quantity	1	1	2	2
UPS output quantity	4	4	14	14
Standard configuration	Temperature and humidity sensor, smoke sensor, short message alarm, mobile phone APP			
Optional	Door magnetic switch, water sensor, video system, backup power			

Note: Two to four cabinets are recommended.

Typical configuration 1 is only applicable to Tier 1 construction level

Typical Configurations

7.5 kW < IT load ≤ 15 kW



Typical configuration 5

Typical configuration 6

Typical configuration 7

Typical configuration 8

IT load	IT load 15KW			
Typical configuration	Typical configuration 5*	Typical configuration 6*	Typical configuration 7	Typical configuration 8
Aisle type	Cold aisle			
UPS configuration (KVA)	20	20+20	20+20	20+20
A/C configuration	2+0	2+0	2+1	2+1
Power input	single	single	single	dual
Rpdu quantity	1	2	2	2
UPS output quantity	14	14	14	14
Standard configuration	Temperature and humidity sensor, smoke sensor, short message alarm, mobile phone APP			
Optional	Door magnetic switch, water sensor, video system, backup power			

Note: Four to eight cabinets are recommended.

Typical configuration 5 and Typical configuration 6 are only applicable to Tier 1 construction level