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 rack in order to save space. IT racks can be deployed flexibly on both sides. A single module can support maximum12 racks and 25kW IT load (T3: IT Load≤21kW), the maximum power density for each rack is 7kW(T3:≤6kW). Cold and hot aisle containment to saving energy and reduce noise.

Labels: Electrical cable tray(Optional), Data cable tray(optional), Spring to open the door(rear), Camera(optional), Indicator light, Spring to open the door(front), PDU, UPS, Glass door, Transformer (optional)), Touch screen, Monitoring module, Aisle, Air conditioners

FusionModule800 Architecture

Application Scenarios

- Finance, Education, Health Care, Public Security, SMEs, Retailing & Merchandising, Edge DC, etc
- Indoor modular data center

Features & Value

Simple

- Integrated cooling, PDU, UPS and monitoring system in one rack, footprint saving
- All components are prefabricated in factories, only need to be combined onsite, hardware are installed in 4 hours, 2 days business on line
- The local PAD supports facial recognition, easy login without password
- Support online maintenance through hot swap switches*, local PAD indicates the PUE through intelligent power distribution*(only for BC6 and BC7)
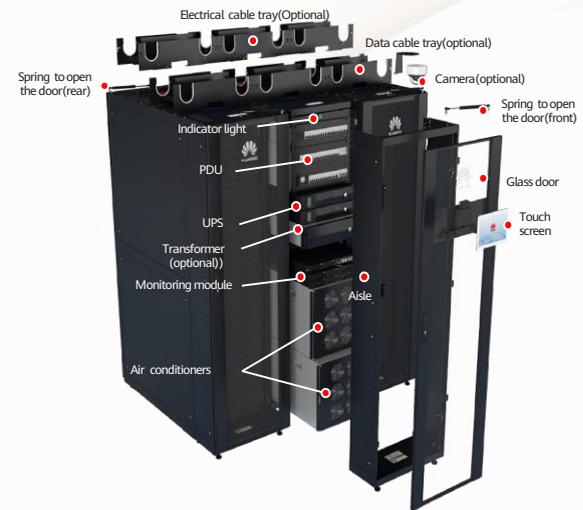
Efficient

- Rack-mounted air conditioner saves at least one rack footprint
- Cold and hot aisle containment, saving energy and reducing noise
- Improve the efficiency of cooling system through DC variable frequency compressor, wet film humidification, cold and hot aisle containment
- Real-time monitoring of mobile apps*, centralized monitoring of multiple sites*

Reliable

- Dehumidifying at 10% IT load avoids condensation risk
- Automatic shutdown to prevent fire caused by battery overheating*
- Open rack doors automatically in case of cooling failure and the temperature exceeds the limit
- When detect the fire alarm automatically open the door to let the fire extinguishing gas enters
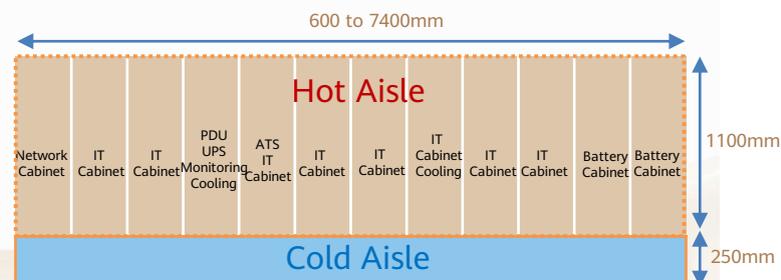
*: Optional

FusionModule800 Application

600 to 7400mm

Hot Aisle

| Network Cabinet | IT Cabinet | IT Cabinet | PDU UPS Monitoring Cooling | ATS IT Cabinet | IT Cabinet | IT Cabinet | IT Cabinet Cooling | IT Cabinet | IT Cabinet | Battery Cabinet | Battery Cabinet |

1100mm

Cold Aisle

250mm

Maximum configuration:
IT load 17~25KW(T1/LT), 14kW~21kW(T3)

Specifications

System features

Power system	380/400/415VAC, 50Hz, 3Ph+N+PE
Aisle containment	Cold and hot aisle containment
System protection level	IP20
Ambient temperature	T1* : -20℃~+45℃ ; T3* : -10℃~+55℃ ; LT* : -40℃~+45℃ ;
Maximum cabinet quantity for a module	12
Quantity of IT cabinets	0~10
Maximum IT load	25kW (T1* &LT*) 21kW (T3*)
Max power density/Rack	7kW (T1* & LT*) 6kW (T3*)
IT cabinet performance	Static load 1500kg, dynamic load 1000kg
Total Dimensions (H × W × D mm)	2000 × (600-7400) × 1350

Cooling system

Power system	220/230/240VAC, 50Hz, 1Ph+N+PE
Cooling capacity	12.5kW*
Configuration	N, N+1
Cooling mode	Direct expansion air-cooled
Installation	Rack- mounted
Air volume	2600m³/h
Air supply mode	Front supply, rear return

Power Supply and Distribution System

SPD	CLASSII/C, In 20kA, Imax 40kA, 8/20us	
Input power	Single or dual inputs	
UPS capacity	10kVA	20kVA
UPS configuration	N, N+1	
UPS output power factor	0.9	
UPS input voltage range	138~485Vac, 40~70Hz, 3Ph+N+PE	
UPS rated output voltage	220/230/240Vac 50/60Hz, 1Ph+N+PE	380/400/415Vac 50/60Hz, 3Ph+N+PE
UPS efficiency	94.5%	95%
Battery backup mode	Battery pack, battery cabinet, battery rack	
Backup time	15min/30min	
rPDU (Optional)	No-Intelligent rPDU: IEC or GB, on site installation Intelligent rPDU: IEC, on site installation	
ATS (Optional)	On site installation	
Maintenance bypass	Standard	
Intelligent battery monitoring system	Optional	

Monitoring system

Monitoring system	Mobile phone APP*, SMS alarm, Web access, centralized management for multiple sites*
10 inched Pad	Standard
Water sensor	Optional
Camera	Optional
Smoke sensor	Standard
Intelligent door lock	Standard
Facial recognition	Standard
Temperature and humidity sensor	Standard
Mobile O&M	Local app on the PAD, SMS alarm
	NetEco remote app on the mobile phone(optional)

Centralized management for multiple DCs

LTE

TCP/IP

Mobile operation

Module1

Management for single module

APP (local)

Module 2 Module N

WiFi

DC Controller

Battery UPS Cooling T&H sensor Water sensor Door status sensor Video

7 Basic Configurations

IT load	≤8.5KW（T1/LT） ≤7KW(T3)		8.5KW~17kW（T1/LT） 7KW~14kW(T3)	
Basic configuration	BC1*	BC2	BC3*	BC4*
Aisle type	Single row, cold & hot aisle containment			
UPS(KVA)	10+0	10+10	20+0	20+20
Smart cooling	1+0	1+1	2+0	2+0
Power input	Single input is default (ATS optional)			
IT output	4	12	12	12
Intelligent Power distribution	NO	NO	NO	NO

IT load	17~25KW(T1/LT) 14kW~21kW(T3)	≤8.5KW(T1/LT) ≤7KW(T3)	8.5~17kW(T1/LT) 7~14kW(T3)
Basic configuration	BC5*	BC6*	BC7*
Aisle type	Single row, cold&hot sealed		
UPS(KVA)	20*2+0	10+10	20+20
Smart cooling	3+0	1+1	2+0
Power input	Single input is default (ATS optional)		
IT output	20	12	12
Intelligent Power distribution	NO	Yes	Yes

Note:
1, Basic configuration 1, 3,4,5,7 are only applicable to TierI DC.
2, The cooling capacity 12.5kW is obtained when the indoor dry bulb temperature is 37.8℃, and outdoor dry bulb temperature is 35℃,relative humidity 20%.
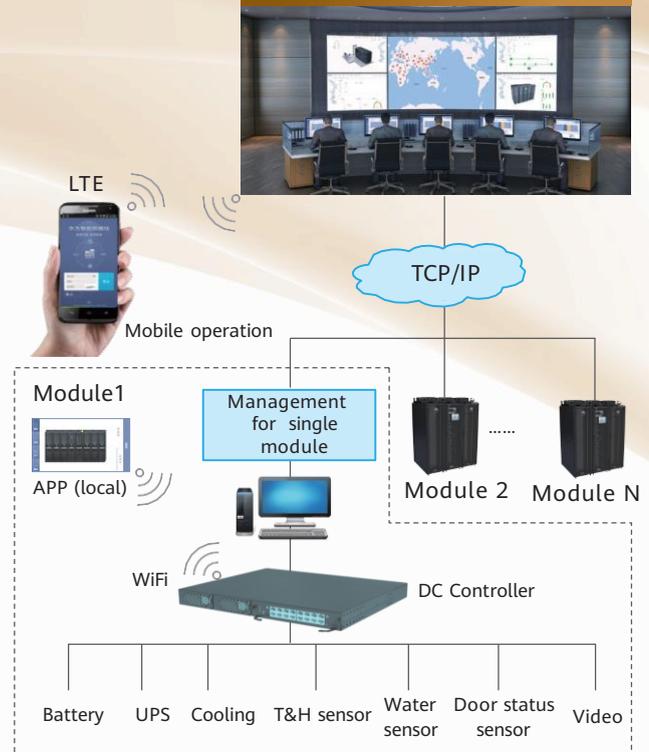3, ATS is optional and can be installed on site
4, T1:-20℃~ +45℃ , LT: -40℃~ +45℃;T3:-10℃~ +55℃
5, BC1 cooling without heating and humidification, the others are all have one cooling with heating and humidification
6, BC6 & BC7 are intelligent power distribution.
7, The Converged cabinet part number don't include cooling out door unit. Three type of outdoor unites are freely configured with the converged cabinet.