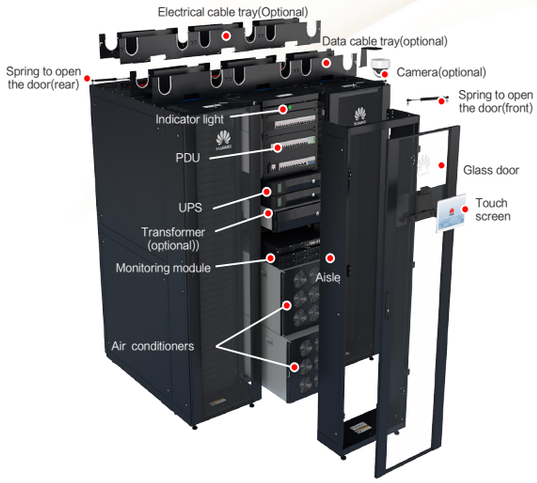
Modular Data Center

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/ R(T3:≤6kW). Cold and hot aisle containment to saving Energy and reduce noise.



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).

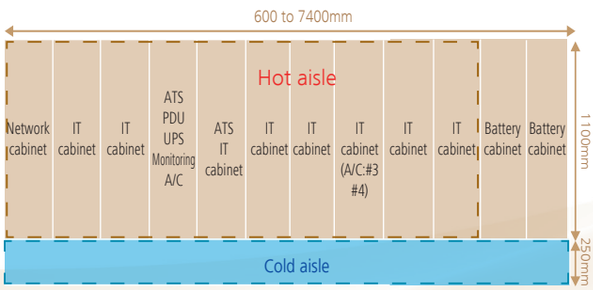
FusionModule800 Application

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 sits.

Reliable

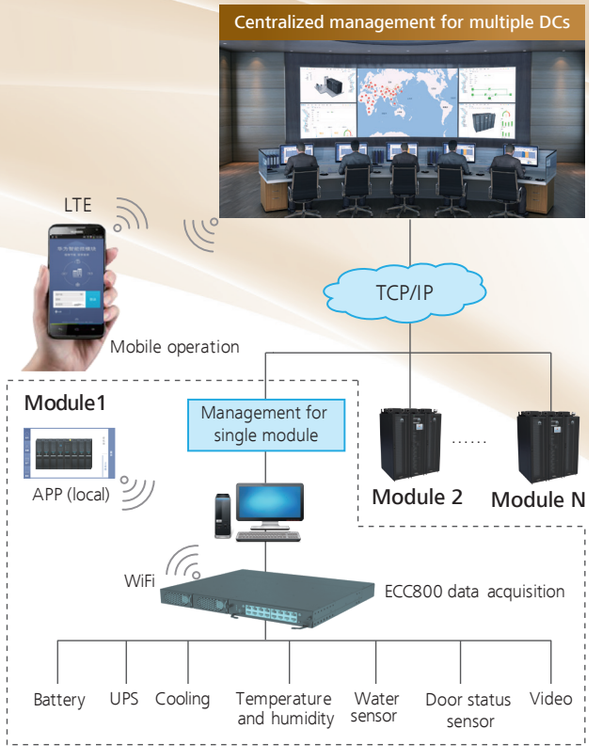
- Dehumidifying at min. 10% IT load avoids condensation risk.
- Automatic shutdown to prevent fire caused by battery overheating.
- Open rack doors automatically in case of cooling failure and the temperature exceeds the limit.
- When detect the fire alarm automatically open the rear door to let the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



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 weight	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[a]	
Operating temperature of the outdoor unit	T1*: -20℃~+45℃; T3*: -10℃~+55℃; LT*: -40℃~+45℃;	
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 rated input voltage	380/400/415Vac, 50/60HZ, 3Ph+N+PE	
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 multi-DCs	
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 mobile phone,SMS alarm	
	NetEco remote app on the mobile phone(optional)	



7 Basic Configurations for T1/T3/LT

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 Tierl 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 intelligient 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.

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