Prefabricated All-in-One Data Center

FusionDC1000A-20ft

Introduction

FusionDC1000A is a prefabricated all-in-one solution for outdoor edge DC. The solution integrates power, cooling, monitoring, firefighting, and cabinet systems into an ISO standard 20ft module. All facilities are prefabricated and pretested in the factory, which enable plug&play deployment. It is with strong ability of earthquake/wind/dust/water-proof and support long-term outdoor running.

FusionDC1000A-20ft

Application Scenarios

- Wireless BTS/Node B/Enb, BBU-hotel/CRAN access site
- Fixed network access & convergence site, and fixed network modernization
- National broadband network
- Telecom network by grid company

FusionDC1000A-20ft site

Features&Value

Simple

- Main facilities are preinstalled in the factory
- One data center is built per module enable plug-and-play deployment
- Modular design enable quick and standard deployment of entire network

Green

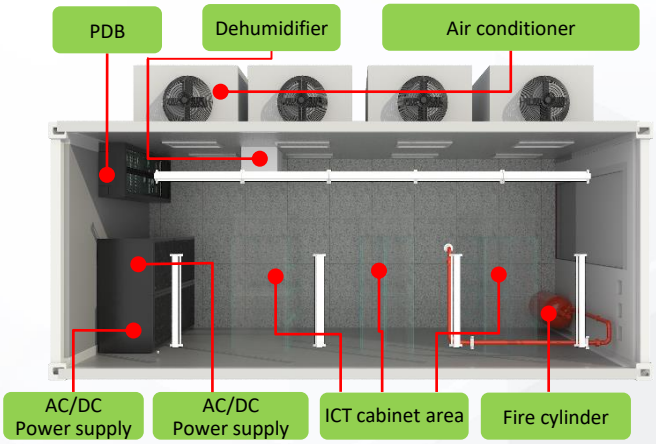
- Aisle containment and Integration of smart cooling, power, and lithium batteries lead to end-to end(E2E) high efficiency and low carbon emission

Smart

- The intelligent system provide centralized and digital management of facilities and intelligent O&M and facilitate unattended operations

Reliable

- Its enclosure is with lifespan of 25 years and IP65 protection
- It can resistGR-63-CORE Zone3 earthquakes & Beaufort scale 12 winds



FusionDC1000A-20ft Layout

SPECIFICATIONS

Item		380V-IT 8kW + CT 10kW N+X configuration	380V-IT 8kW + CT 10kW 2N configuration	380V-CT 24kW N+X configuration	380V-CT 24kW 2N configuration
Entire system	Deployment Site	Outdoor, awning, warehouse			
	Altitude range	≤3000m (Power derating occurs when altitude ≥1000m)②			
	Relative humidity range	5% ~ 95% RH			
	Operating temperature	-20℃ ~ +55℃			
	Storage temperature	-40°C ~ +70°C③			
	Storage humidity	5% ~ 95% RH			
	Power density	Total power: IT ≤ 8 kW, CT ≤ 10 kW		Total power: CT ≤ 24 kW	
	Number of cabinets (no cabinets provided)	N63 cabinet: 6 Pcs N66 cabinet: 5 Pcs	N63 cabinet: 6 Pcs N66 cabinet: 4 Pcs	N63 cabinet: 6 Pcs N66 cabinet: 5 Pcs	N63 cabinet: 6 Pcs N66 cabinet: 4 Pcs
	Cabinet dimensions (W×D×H)	N63 cabinet: 600×300×2200mm (air intake at front and exhaust at top) N66 cabinet: 600×600×2200mm (air intake at front & back and exhaust at top)			
	Available space for cabinet installation	9 m^2	8 m^2	9 m^2	8 m^2
	Environment corrosion requirements	Class A/B/C environment④			
	Waterproof & dustproof	IP65			
	Anti-seismic	GR-63-CORE Zone3 (the module structure)			
	Anti-wind	Wind speed 32.7 m/s			
	Anti-salt fog	Meets the 1440-hour salt spray test requirements			
	Module service life	Equivalent service life: 25 years			
	Fixed-form	Preferentially installed on the ground⑤			
Power system	Power mode	380/400/415V, 50/60 Hz, three-phase, four-wire+PE			
	Input channels	2			
	Input current	250A			
	Total input surge protection	In=30kA(8/20μs), Imax=60kA(8/20μs)			
	Battery specifications	BoostLi-150Ah×6	BoostLi-150Ah×8	BoostLi-150Ah×6	BoostLi-150Ah×8
	Backup time	22min	22min	17min	17min
Cooling system	Cooling capacity	13.5 kW/unit(3+1 redundancy) ⑥			
	Unit dimensions (W×D×H)	1160 × 655 × 2200 mm			
	Compressor	DC variable frequency			
	Refrigerant	R134a			
	Temperature control range	18 ~ 32°C			
	Humidity control range	20% ~ 80% RH			
	Heat transfer coefficient	≤ 0.59 W/(m^2×K)			

SPECIFICATIONS

Item		380V-IT 8kW + CT:10kW N+X configuration	380V-IT 8kW+CT:10kW 2N configuration	380V-CT 24kW N+X configuration	380V-CT 24kW 2N configuration
Monitoring system	Container access control	IC card access control			
	Video surveillance	Support			
	Video storage	SD card (7 days video storage)			
Fire extinguishing system	Gas fire extinguishing system	Support			
	Gas type	FK-5-1-12			
Structure system	Dimensions(W×D×H)	2438 × 6058 × 2896 mm			
	Weight	Preinstalled weight before delivery ≤ 7.5T, maximum load-bearing capacity ≤ 10T			

Remark:

- ① Two sets of DC power supplies are configured in 2N mode, and one set of DC power supply is configured in N+X mode;
- ② For more information, please view the product description or contact Huawei technical support;
- ③ The storage temperature range of the lithium battery is from 0℃ to +40 ℃;
- ④ The basic concept of A/B/C environment is defined by GB/T15957 and Huawei enterprise standards. The corresponding ISO9223/12944 environments are classified into (C1, C2)/C3/C4;
- ⑤ The module can also be installed on a concrete platform. Four 300 mm high steel bases are configured at the bottom of the module;
- ⑥ The return air temperature of cabinets in ICT scenarios is considered as 27℃, and the return air temperature of the cabinets is considered as 32 ℃ in CT scenario.

SPECIFICATIONS

Item		380V-CT 8kW N+X configuration	380V-CT 8kW 2N configuration	380V-CT 16kW N+X configuration	380V-CT 16kW 2N configuration
Entire system	Deployment Site	Outdoor, awning, warehouse			
	Altitude range	≤3000m (Power derating occurs when altitude ≥1000m)②			
	Relative humidity range	5% ~ 95% RH			
	Operating temperature	-20℃ ~ +55℃			
	Storage temperature	-40°C ~ +70°C③			
	Storage humidity	5% ~ 95% RH			
	Power density	Total power: CT ≤ 8 kW		Total power: CT ≤ 16 kW	
	Number of cabinets (no cabinets provided)	N63 cabinet: 6 Pcs N66 cabinet: 5 Pcs	N63 cabinet: 6 Pcs N66 cabinet: 4 Pcs	N63 cabinet: 6 Pcs N66 cabinet: 5 Pcs	N63 cabinet: 6 Pcs N66 cabinet: 4 Pcs
	Cabinet dimensions (W×D×H)	N63 cabinet: 600×300×2200mm (air intake at front and exhaust at top) N66 cabinet: 600×600×2200mm (air intake at front & back and exhaust at top)			
	Available space for cabinet installation	9 m^2	8 m^2	9 m^2	8 m^2
	Environment corrosion requirements	Class A/B/C environment④			
	Waterproof & dustproof	IP65			
	Anti-seismic	GR-63-CORE Zone3 (the module structure)			
	Anti-wind	Wind speed 32.7 m/s			
	Anti-salt fog	Meets the 1440-hour salt spray test requirements			
	Module service life	Equivalent service life: 25 years			
	Fixed-form	Preferentially installed on the ground⑤			
Power system	Power mode	380/400/415V, 50/60 Hz, three-phase, four-wire+PE			
	Input channels	2			
	Input current	250A			
	Total input surge protection	In=30kA(8/20μs), Imax=60kA(8/20μs)			
	Battery specifications	BoostLi-100Ah×4	BoostLi-100Ah×4	BoostLi-100Ah×5	BoostLi-100Ah×6
	Backup time	27min	27min	37min	37min
Cooling system	Cooling capacity	13.5 kW/unit⑥ 1+1 redundancy (outdoor temperature ≤45℃) 2+1 redundancy (outdoor temperature ≤55℃)		13.5 kW/unit⑥ 2+1 redundancy (outdoor temperature ≤45℃) 3+1 redundancy (outdoor temperature ≤55℃)	
	Unit dimensions (W×D×H)	1160 × 655 × 2200 mm			
	Compressor	DC variable frequency			
	Refrigerant	R134a			
	Temperature control range	18 ~ 32°C			
	Humidity control range	20% ~ 80% RH			
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