

# Prefabricated Data Center

## FusionDC1000A Prefabricated All-in-One Data Center

### Introduction

Huawei FusionDC1000A is an advanced outdoor and prefabricated all-in-one data center facility solution. The solution can be applied to multiple industries and scenarios and has simple, green, smart, and reliable features.



FusionDC1000A 40ft

### Application Scenarios

**Enterprise:** small data center

**Government:** data center of smart city and safe city

**Education:** data center of university and science institute

**Energy:** data center of mining and exploration field

**Finance:** backup data center

**Transportation:** power supply for room of airport/railway station/port

**Telecom carrier:** small IT center, small IDC, DR DC, edge DC

### Features & Value

#### Simple

- Subsystems are factory-prefabricated; One DC within One container
- No new building; Onsite installation within one day; Plug-and-play
- Moveable design makes relocation easy and deployment flexibly

#### Green

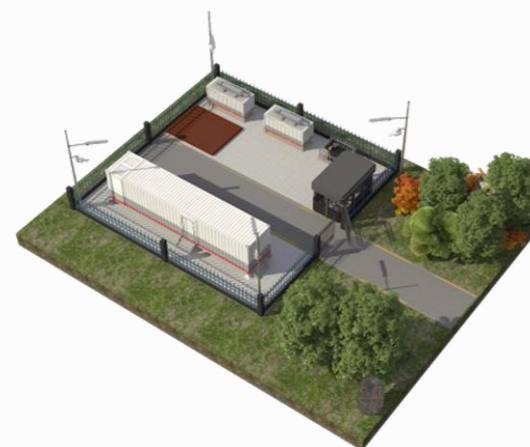
- Ultimate subsystem energy efficiency design, industry-leading PUE
- Dynamic optimization of system energy efficiency by AI technology
- One-stop delivery, less onsite construction waste and pollution

#### Smart

- NetEco intelligent system ensure full-facility 3D visualized management
- Intelligent O&M, reducing O&M costs and improving resource utilization
- Efficient O&M anywhere & anytime with mobile APP

#### Reliable

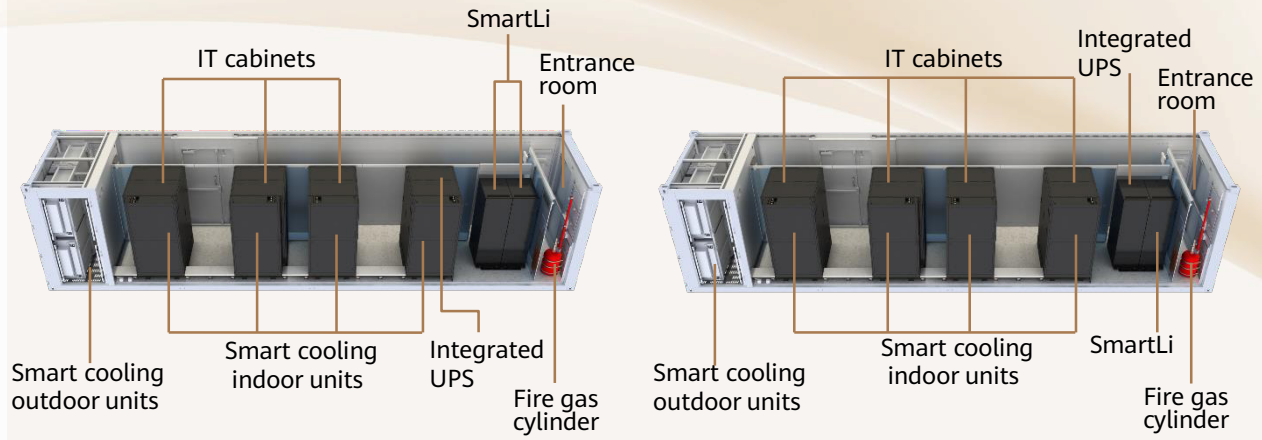
- Durable enclosure with 25-year service life; IP55 protection ; GR-63-CORE Zone3 anti-seismic; Standard 60-minute fire resistance for external sheathing structures (structural walls); EN1627-EN1630 Class 3 anti-theft (optional)
- 3D temperature map eliminates the risk caused by hot spots. Full-link detection for power supply and distribution can isolate the fault actively; Automatic refrigerant detection can provide early-alarm to ensure reliable cooling running
- The intelligent detection system is used to implement reliable backup power and visualized O&M management of lithium batteries



FusionDC1000A 40ft Site

# Layout

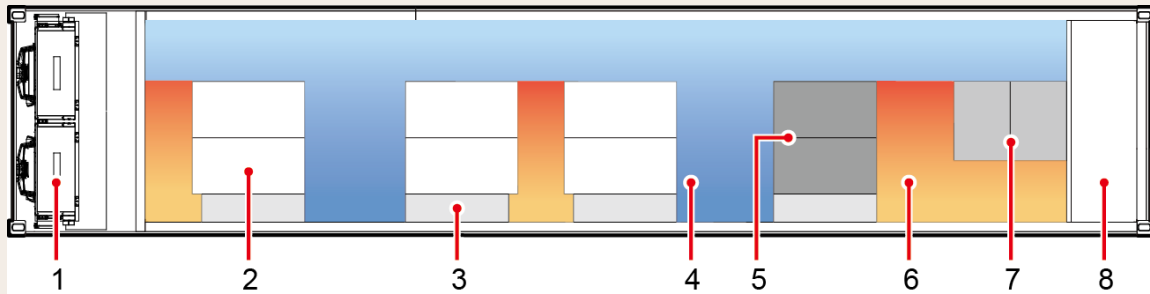
## Layout inside



FusionDC 1000A-40ft-IT-2N

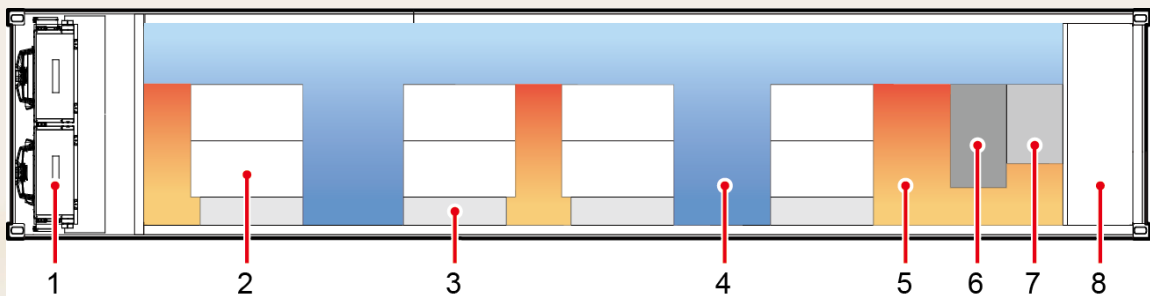
FusionDC 1000A-40ft-IT-N+X

## Plan View



FusionDC1000A-40ft-IT-2N

- (1) Smart cooling product outdoor units    (2) IT cabinet    (3) Smart cooling product indoor units
- (4) Cold aisle    (5) Integrated UPS    (6) Hot aisle
- (7) SmartLi    (8) Entrance room

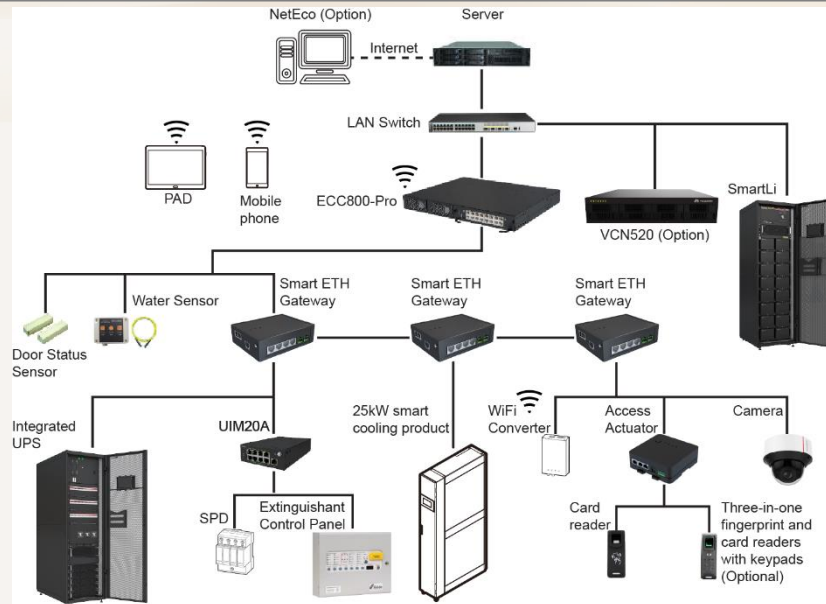


FusionDC1000A-40ft-IT-N+X

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# Management System

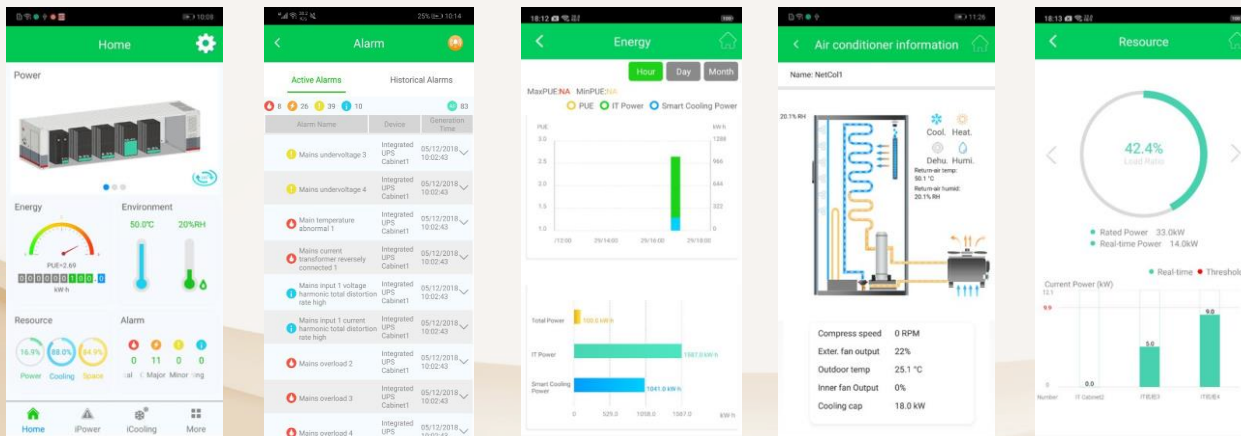
## Detection network



## Local Display



## Mobile Phone APP



Homepage

Real-time Alarm

Power

Cooling

Resource

## Specifications

Type	40ft-IT-N+X-380V <sup>①</sup>	40ft-IT-2N-380V <sup>①</sup>	
Entire system parameters	Deployment Site	Outdoor, awning, warehouse	
	Altitude range	Maximum altitude: 4000m (Power derating occurs when the altitude is greater than 1000m) <sup>②</sup>	
	Humidity range	5%-95% RH	
	Operating temperature	-20°C- +55°C(Power derating occurs when the temperature is higher than 45°C) <sup>②</sup>	
	Storage temperature	-40°C - +70°C <sup>③</sup>	
	Storage humidity	5%-95% RH	
	Power density	Total power≤54kW 6kW/R: 6pcs 9kW/R: 2pcs	Total power≤54kW 9kW/R: 6pcs
	Number of cabinets/container	42U/cabinet, 8pcs IT cabinets	42U/cabinet, 6pcs IT cabinets
	Cabinet dimensions (W×D×H)	4pcs: 600×1100×2000mm 4pcs: 600×1200×2000mm	2pcs: 600×1100×2000mm 4pcs: 600×1200×2000mm
	Environment corrosion requirements	A/B/C environment; Class C environment: At least 500m away from strong corrosive environments (Such as seaside and heavily polluted chemical plants) <sup>④</sup>	
	Waterproof and dustproof	IP55	
	Anti-seismic	GR-63-CORE Zone 3/9 intensity (the container)	
	Anti-theft	EN 1627 - EN 1630 Class 3 (optional)	
	Anti-elasticity	GJB 4300-2002 V&N.IJ.0108.01 IIIA (customized configuration)	
	Anti-wind	Wind speed≤30m/s	
	Anti-salt fog	Meets the 1440-hour salt spray test requirements.	
	Container service life	Equivalent service life: 25 years	
Fixed-form	Preferentially installed on the ground <sup>⑤</sup>		
Structure parameters	Dimensions(H×W×D)	2896mm×2438mm×12192mm	
	Weight	Preinstalled weight before delivery ≤ 14T, fully-configured devices ≤ 20T	
	Integrated cabling	Customized configuration	
	Transition hallway	Yes	
	Aisle dimensions	Long aisle width: 640 mm; Cold aisle width: 1150 mm; The width of the hot aisle is greater than or equal to 610 mm	
	Cabinet sliding	A 1.2m deep cabinet can slid 200mm in both directions	
Electrical parameters	Power mode	380/400/415V 50/60Hz, three-phase, four-wire+PE	
	Input voltage range	380/400/415V±15% (for 415V, the positive tolerance is +10%)	
	Input channels	2 channels	2 channels
	UPS model and quantity	UPS5000-E, 1pcs	UPS5000-E, 2pcs
	Power capacity	≤60KVA (2 modules+1 redundancy)	≤60KVA ( Full kit 1+1, 2 modules/rack)
	Total input surge protection	Class B, 8/20us, In=30kA, I <sub>max</sub> =60kA	
	Battery specifications	40AH SmartLi	40AH SmartLi×2
	Backup time	15min	20min

## Specifications

Type		40ft-IT-N+X-380V <sup>①</sup>	40ft-IT-2N-380V <sup>①</sup>
Cooling Parameters	Cooling capacity	25kW/pcs(3+1 redundancy)	
	Unit dimensions (H × W × D)	2000mm × 300mm × 1100mm	
	Compressor	DC frequency conversion	
	Refrigerant	R410A	
	Fan	EC Fan	
	Pipe	Copper tubing	
	Temperature control range	18 - 27°C	
	Humidity control range	20% - 80% RH	
	Thermal insulation performance	Total heat transfer coefficient ≤ 0.36 W/(m <sup>2</sup> × K)	
	Refrigerant leakage detection	Yes	
Detection parameters	Container access control	IC card access control (standard configuration); Three-in-one access control (customized configuration)	
	Video surveillance	Huawei high-definition IP camera	
	Video storage	SD card (7 days video storage); VCN (optional)	
	Local display in the container	Customized configuration(PAD)	
	View function	Customized configuration	
	Mobile O&M	Customized configuration	
	E-mail	Customized configuration	
	SMS alarm	Customized configuration	
	Temperature nephogram	Customized configuration	
	U space management	Customized configuration	
Fire protection parameters	Automatic gas fire extinguishing system	CE Version	
	Very early smoke detection	Customized configuration(ASD)	
	Gas	HFC-227ea	
	Fireproof performance	Standard 60-minute fire resistance for external sheathing structures (structural walls)	

①N+X and 2N indicate the redundancy levels of the power supply and distribution system. N+X indicates UPS module redundancy; 2N indicates UPS full kit redundancy;

②For more information, please view the product description or contact Huawei technical support;

③The storage temperature range of the lithium battery is from 0°C to +40°C;

④The 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), and C4;

⑤The container can also be installed on a concrete platform. Four 300 mm high steel bases are configured at the bottom of the container.

