

# Prefabricated All-in-One Data Center

FusionDC1000A-40ft-IT-AIO

## 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.

## 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

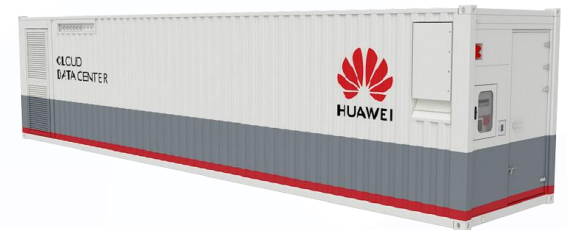
- Ultimate subsystem energy efficiency design, industry-leading PUE
- Dynamic optimization of system energy efficiency by AI technology
- One-stop delivery, less onsite construction waste and pollution

### Smart

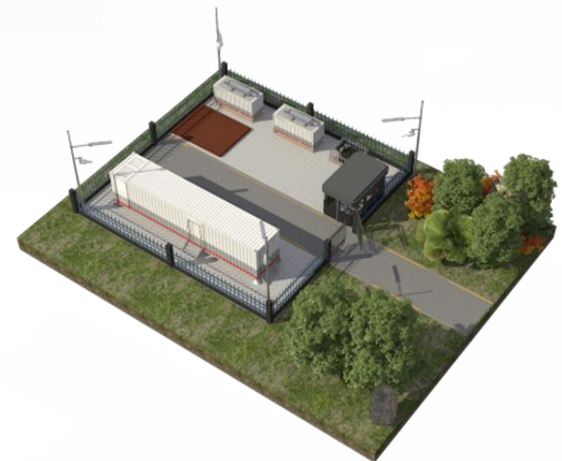
- NetEco intelligent system ensure full-facility 3D visualized management
- Intelligent O&M, reducing O&M costs and improving resource utilization
- Local PAD management and customized mobile APP management

### 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
- The Smart lithium batteries as a safe and reliable backup power



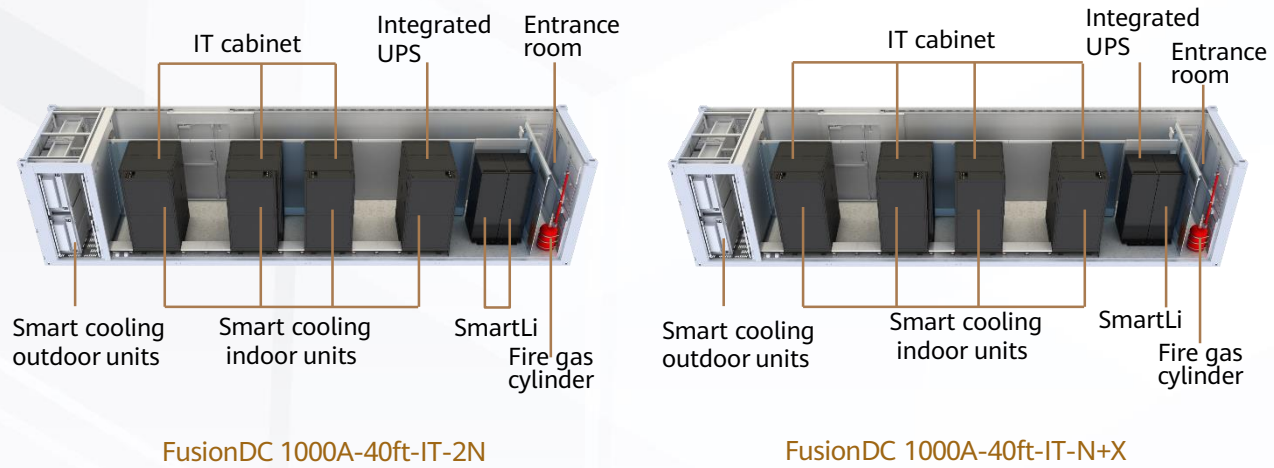
FusionDC1000A 40ft



FusionDC1000A 40ft Site

## Layout

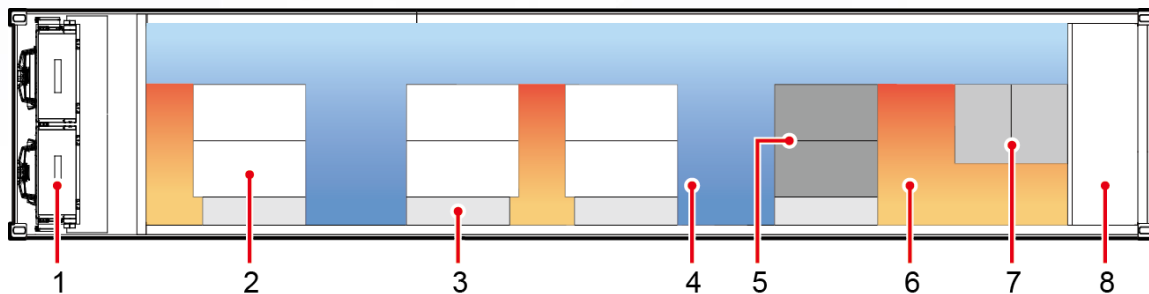
### Layout inside



FusionDC 1000A-40ft-IT-2N

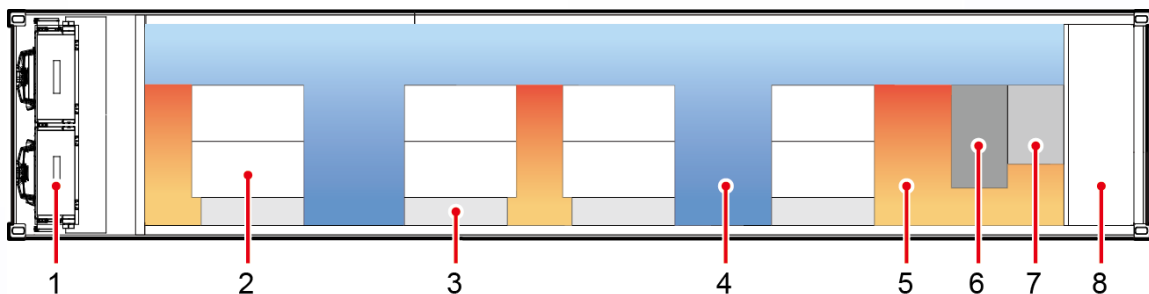
FusionDC 1000A-40ft-IT-N+X

### 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

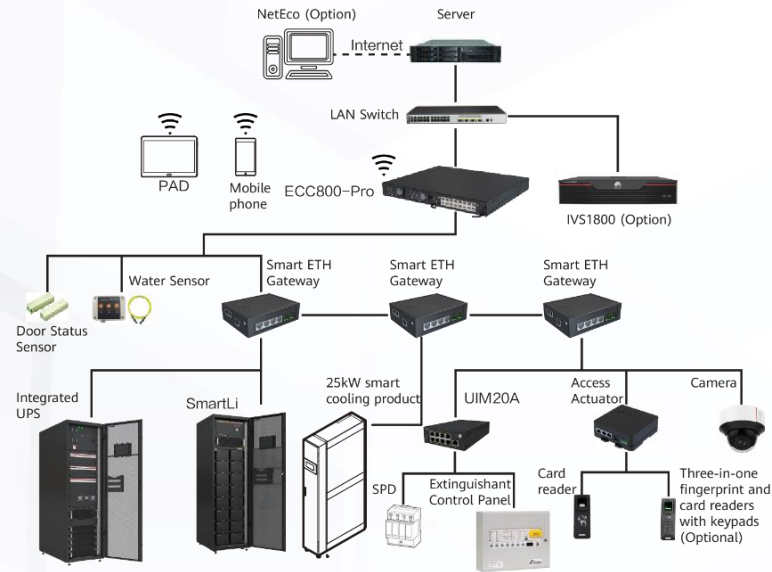


FusionDC1000A-40ft-IT-N+X

- (1) Smart cooling product outdoor units
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# Management System

## Detection network



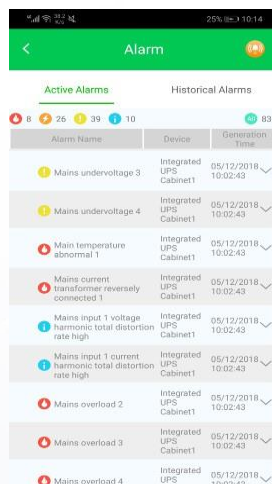
## Local Display



## Mobile Phone APP (Option)



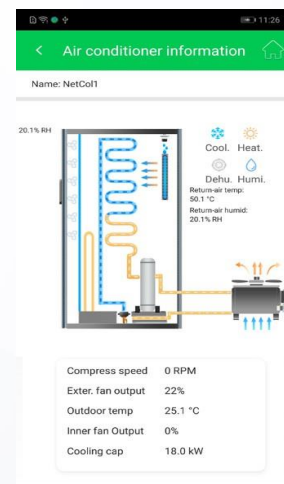
Homepage



Real-time Alarm



Power



Cooling

## 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: 4000 m (Power derating occurs when the altitude is greater than 1000 m) <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, 8 pcs IT cabinets	42U/cabinet, 6 pcs IT cabinets
	Cabinet dimensions (W × D × H)	4pcs: 600 × 1100 × 2000 mm and 4pcs: 600 × 1200 × 2000 mm	2pcs: 600 × 1100 × 2000 mm and 4pcs: 600 × 1200 × 2000 mm
	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-bullet	GJB 4300-2002 V&N.IJ.0108.01 IIIA (customized configuration)	
	Anti-wind	Wind speed 32.7m/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(D × W × H)	12192 × 2438 × 2896 mm	
	Weight	Preinstalled weight before delivery ≤ 14T, fully-configured devices ≤ 20T	
	Transition hallway	Yes	
	Aisle dimensions	Long aisle width: 640 mm; Cold aisle width: 1150 mm; Hot aisle width: 510 mm. And the hot aisle width can reach 610 mm by sliding the 1200mm-deep cabinets.	
	Cabinet sliding	The 1200mm-deep cabinets can slide by 200mm at dual 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, 1 pcs	UPS5000-E, 2 pcs
	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	15 min	20 min

## 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 (W×D×H)	300 × 1100 × 2000 mm	
	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)	
	Video surveillance	Huawei high-definition IP camera	
	Video storage	SD card (7 days video storage)	
	Local display in the container	PAD	
Fire protection parameters	Automatic gas fire extinguishing system	Support	
	Gas	FK5112	
	Fireproof performance	Standard 60-minute fire resistance for external sheathing structures	

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.