

Modular Data Center

FusionModule5000 Smart Modular Data Center

Introduction

HUAWEI FusionModule5000 is a new generation smart modular data center solution with complete integration of cabinets, power supply and distribution systems, cooling systems, cabling systems, management software, and other subsystems. It supports flexible deployment with single or dual row, cold or hot aisle containment. The maximum IT power can be up to 21kW/rack.

Application Scenarios

- Maximum IT power per module can be up to 310kW, which meet the requirements of large-scale data center for industries like ISP, government, education, healthcare, finance, telecom, etc.
- Designed for chilled water cooling scenarios.

Features & Value

Reliable

- Single/dual power supply, Tier IV supportive, Precise monitoring of power branch temperature prevents fire caused by loose contact and overheat
- Water leakage monitoring keeps room away from flooding
- Ring network of monitoring system
- Warning of component expired, aging, damaged
- Optional aisle/cabinet-level door access keeps the data center safe

Efficient

- Closely coupled cooling to efficiently avoid partial hot spot, high-density deployment supportive
- Hot/cold aisle containment for isolation of hot and cold air
- Local/remote monitoring, PAD or cell phone mobile O&M

Simple

- Standardized devices, modular architecture, on-demand deployment
- Busway for power distribution is optional , easy installation



FusionModule5000 (Dual-row)



FusionModule5000 (Single-row)

Specifications

Item	Specifications	
System	Dimensions	Single-row with aisle containment (L × W × H (IT cabinets)): L × 2400 × 2000mm, L≤15 m L × 2300 × 2000mm, L≤15 m L × 2400 × 2200mm, L≤15 m
		Dual-row with aisle containment (L × W × H (IT cabinets)): L × 3600 × 2000mm, L≤15 m L × 3400 × 2000mm, L≤15 m L × 3600 × 2200mm, L≤15 m
	Cabinet number per module	Single row: 2-24; Dual row: 6-48
	Power supply	380/400/415Vac, 50/60Hz, 3Ph+N+PE
	IT power consumption per module	UPS inside: 112kW UPS outside: 310kW
	Maximum power per rack	21kW/R
	Availability	Tier II or Tier III (up to Tier IV)
	Altitude	0-4000m (derating above 1000m)
Installation	Installed on concrete or base support	
Cabinet	Dimensions (H × W × D)	2000mm × 600/800mm × 1200mm 2000mm × 600/800mm × 1100mm 2200mm × 600/800mm × 1200mm
	Space available	42U/47U
	Protection level	IP20
Chilled water In-row air conditioner	Cooling capacity	30kW
	Dimensions (H × W × D)	2000mm × 300mm × 1200mm
	Power supply	200~240V (1Ph, 50/60Hz)
	Refrigerant	Water/Ethylene Glycol
Integrated UPS (UPS inside)	Input voltage	380/400/415Vac, 50/60Hz, 3Ph+N+PE
	Input power factor	Full load > 0.99, Half load > 0.98
	Rated capacity	40~160kVA
	Efficiency	≥ 96%
	AC SPD	20kA, 8/20 μ s
Precision power distribution cabinet (UPS outside)	Input voltage	380/400/415Vac, 50/60Hz, 3Ph+N+PE
	Rated capacity	400/250/160A
	AC SPD	20kA, 8/20 μ s
	Output	16A/20A/32A/40A optional, max branches up to 144 (single phase), or 48 (three phase)
Smart busway (UPS outside)	Input voltage	380/400/415Vac, 50/60Hz, 3Ph+N+PE
	Rated capacity	250/160A
	Output	40A/1P (6 branches in one Power Distribution Unit, can be expand with the length of cabinets)