FusionModule2000-S Single Row

Smart Modular Data Center Solution

INTRODUCTION

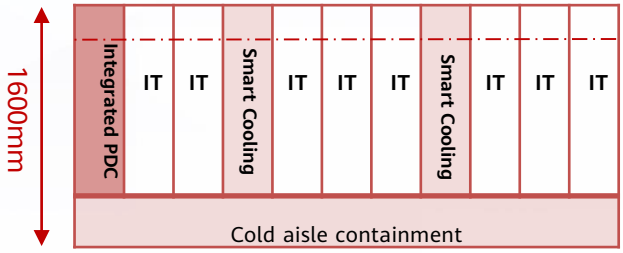
FusionModule2000-S is a new generation smart modular data center solution, which dedicated to providing customers with simple, efficient, and reliable data center solutions.

FusionModule2000-S adopts a modular design and integrates power supply, temperature control, cabinet, aisle, cabling, and monitoring system in a single row of aisles, meeting the requirements for quick delivery and on-demand deployment.

In addition, FusionModule2000-S uses i³ to build intelligent core subsystems and introduces AI technologies to implement intelligent linkage control of power supply and cooling, and automatically manages equipment room assets, significantly improving data center reliability, availability, and O&M efficiency.

APPLICATION SCENARIOS

- High-density HPC supercomputing: 1600mm deep cold and hot aisle containment. Supports a maximum of 30 kW/R cabinet. A 900 mm deep server can be installed. It can be used in supercomputing applications in universities and research institutes.
- Simplified MDC: 1350 mm deep hot aisle containment, simplified design, aisle-free design, strong building adaptability, and applicable to most equipment rooms in harsh conditions such as small space and low floor height.



Typical layout of the HPC scenario

FEATURES

Simple

- All-in-one design, one-stop fast deployment, flexible expansion
- The minimum deployment height is only 2.3 m.
- The 1350 mm deep aisle can be contained in the hot aisle, and the 1600 mm deep aisle can be contained in the cold and hot aisle.

Green

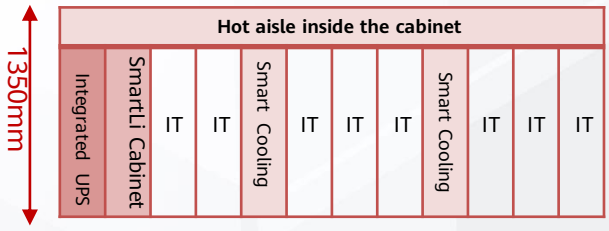
- Integrated cooling, power supply, and monitoring, SmartLi Inside* supports Huawei smart lithium batteries deployed in the module. saving 50%+ footprint compared with traditional solution.
- Cold and hot aisle containment ,high environment adaptability.
- Low PUE: 30% lower PUE compared with the traditional DC.

Smart

- Vertical intelligent partitioning, precisely matching the heat dissipation of the IT equipment. Intelligent follow-up of air volume and cooling capacity, stable running without hot spots.

Reliable

- Support N+1 cooling system backup and 2N power backup, providing highly reliable power supply and cooling.
- Cold and hot aisle containment, automatic door opening in emergency, ensuring emergency heat dissipation.



Typical layout of the simplified MDC scenario

*Optional Features

SPECIFICATIONS

Item		Specifications
Cabinet and Aisle	Dimensions (L × W × H)	L × 1350mm × 2000mm (with hot aisle containment) L × 1600mm × 2000mm (with hot and cold aisle containment)
	Power supply	380/400/415VAC, 50/60Hz, 3Ph+N+PE
	Cabinets per module	≤24 cabinets (Including power supply, cooling and battery cabinets)
	Operation condition	Ultra low temperature condition: -40°C to 45°C Need low-temp kit) T1 condition: -20°C to 45°C;
	Cable routing	Routed in/out through the top of cabinets
	Maintenance space	≥1350mm(front), ≥900mm(rear)
	Installation mode	Installing on concrete floor or raised floor
Air-cooled In-row air conditioner	Cooling capacity	46kW
	Dimensions(W × D × H)	600mm × 1350mm × 2000mm
	Power supply	380/400/415VAC, 50/60Hz, 3Ph+N+PE
	Recommended circuit breaker	63A/3P
	Power supply mode	Supports dual power supplies, Supports UPS power supply in HPC scenarios.
	AC configuration	N+1
	Air volume	9000m³/h@46kW
	Length of water sensor	Standard 5 m (can be extended to 50 m)
	Refrigerant	R410A
Air-cooled outdoor unit@T1 working condition	Power supply	380/400/415VAC, 50/60Hz, 3Ph+N+PE
	Dimension(W × D × H)	1356mm × 1094mm × 1107mm
	Net/gross weight (kg)	122/169
	Air volume	12000m³
	height deviation	-8~30m (If the outdoor unit is lower than the indoor unit, the value is negative.)
	Length of the pipe	0~100m (between indoor and outdoor unit)
Monitoring/management system	Management system	ECC800-Pro
	Power supply mode	Single/Dual
	Water leakage sensor	Standard configuration
	Smoke sensor	Standard configuration
	Access control	Intelligent electronic lock, fire extinguishing linkage, and automatic spring door
	Temperature sensor	Configure 1 PCS for each air conditioner, Cabinet-level temperature map is optional.
Integrated UPS	Rated capacity	60kW/125kW
	Input	250/400A MCCB (single input); 250A/400A ATS (dual input)
	Output	IT: 2 × 24 × 40A/1P, A/C: 8 × 40A/3P or 8 × 63A/3P, Lighting: 3 × 10A/1P
Integrated power distribution cabinet	Rated capacity	95kW/145kW
	Input	IT: 160/250A MCCB; A/C: 160/250A MCCB (single/dual input)
	Output	IT: 40A/1P × 24 × 2; 63A/1P × 24 × 2; 40A/3P × 8 × 2;A/C: 63A/3P × 8 or 40A/3P × 8 ; lighting: 10A/1P × 3
Precision power distribution cabinet	Rated capacity	95/148/235/310kW
	Input	160/250/400A MCCB (single/dual input), 630A MCCB (single input)
	Output	40A/1P, 63A/1P, 40A/3P, 63A/3P, max 144 routes per rack
New main way	Rated capacity	161kW@415VAC, 148kW@380VAC @ 250A MCCB 258kW@415VAC, 236kW@380VAC @ 400A MCCB 339kW@415VAC, 310kW@380VAC @ 630A MCCB
	Input	250A/400A/630A MCCB
	Output	40A,63A/1P x6 or 63A,40A/3P x 2