Modular Data Center Huawei



Overview

It provides an overview of their modular UPS solutions, modular data center solutions, smart cooling solutions, prefabricated modular data centers, and smart DC management systems.

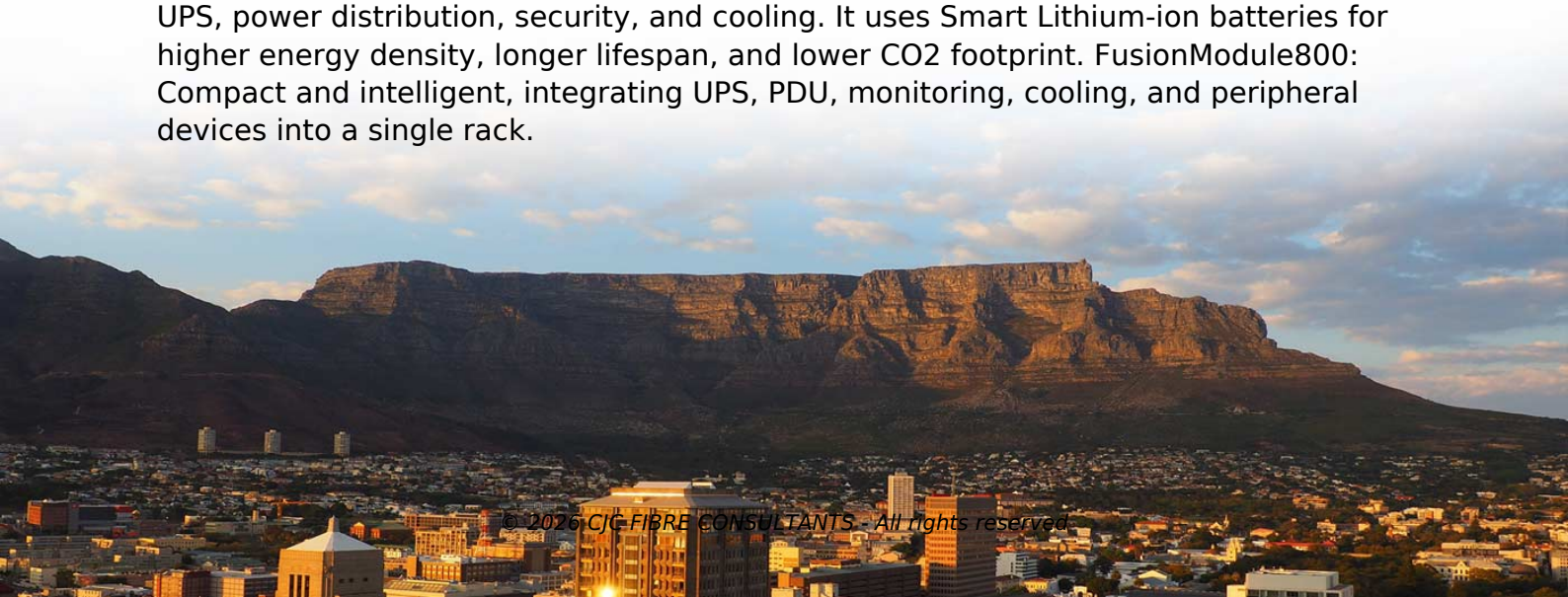
Key Takeaways

Huawei Modular Data Centers are prefabricated, scalable, and intelligent solutions designed for rapid deployment, energy efficiency, and flexible IT infrastructure expansion.

Overview

Huawei offers a range of modular data center solutions that cater to enterprises, governments, financial institutions, and edge computing scenarios. These solutions include prefabricated modules, containerized data centers, and smart modular systems, enabling fast deployment, high reliability, and scalable expansion. They are designed to support small to large IT loads while optimizing energy efficiency and operational management.

Key Product LinesFusionModule500: A smart mini data center with integrated ATS, UPS, power distribution, security, and cooling. It uses Smart Lithium-ion batteries for higher energy density, longer lifespan, and lower CO2 footprint. FusionModule800: Compact and intelligent, integrating UPS, PDU, monitoring, cooling, and peripheral devices into a single rack.



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Supports up to 12 IT racks with a total load of 25kW, expandable for distributed infrastructure. FusionModule2000: Larger modular solution with integrated power, cooling, racks, cabling, and management systems. Supports 24 cabinets in a single row or 48 in a double row, with a total load of 125kW.

Built-in A

I enhances reliability and efficiency. FusionModule5000: Fully integrated 19-inch cabinets with power, cooling, cabling, and management software. Flexible deployment allows single or double rows with cold aisle configuration.

Advantages

Rapid Deployment: Prefabricated modules and pre-installed racks allow setup in as little as 2 days, including cabling and air conditioning tests. Energy Efficiency: Cold and hot aisle designs, AI-driven management, and high-efficiency batteries reduce PUE to 1. 37, saving over 40% energy compared to traditional data centers.

Scalability: Modules can be duplicated or expanded to meet growing IT demands, supporting flexible IT room layouts and edge computing needs. Intelligent Management: Huawei iPower, iCooling, and iManager systems enable real-time monitoring, remote management, and automated O&M, improving operational efficiency. Compact and Flexible Design: Solutions can fit in various spaces, from small equipment rooms to large enterprise IT facilities, with modular racks and integrated cooling.

Applications

Huawei modular data centers are suitable for: Enterprise IT rooms and distributed infrastructureEdge computing and small- to medium-sized data centersGovernment, healthcare, financial, and energy sectorsRapidly deployable cloud and colocation facilities These solutions combine high reliability, energy efficiency, and AI-driven management to support digital transformation and scalable IT infrastructure deployment.

Article Content

Smart Modular Data Center Facilities

The modular data center, comprised of micro modules, has become more and more popular. The modules'' flexibility and predictability are highly valued by telecom

Smart modular data centers

The Huawei Smart Modular Data Center is a new concept, designed with the ambition to provide an all-in-one solution for quickly realizing an in-house data

Huawei Data Center Facility Handbook 20230425-1 | PDF

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It provides an overview of their modular UPS solutions, modular data center solutions, smart cooling solutions, prefabricated modular data centers, and smart DC management systems.

Huawei''s prefabricated modular data center ranks first in ...

In 2018, Huawei innovatively integrated box-type prefabricated buildings and modular data center technologies, pioneered a building-level solution, and built the world''s first 5-layer

Make any room a data center with Huawei''s

Compared to traditional data centers, Huawei''s FusionModule2000 offers greater adaptability and is not limited by installation environment. It

Accelerating high-quality data center construction to win

In his opening speech, Bob He, vice president of Huawei Digital Power, reiterated Huawei''s commitment to customer requirements and

Modular Data Center

FusionModule2000 is a new generation smart modular data center solution. It''s a modular-designed, highly integrated solution which comprises power supply system, cooling system, rack & structure

FusionModule5000 Smart Modular Data Center

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,

Advancing Industrial All Intelligence

Huawei Enterprise provides a broad range of innovative ICT infrastructure products and solutions for vertical industry and enterprise customers worldwide.

Huawei releases intelligent modular Data Center solution at MWC 2015

Huawei announced that it will introduce its new Intelligent Modular Data Center Solution at MWC 2015. Adopting an integrated modular design, the solution features the advantages of easy

Containerized Data Center Market Report 2025-2030 | Competitive ...

The containerized data center market offers opportunities in rapid deployment, modular scalability, and integration with edge computing. Enterprises can leverage these solutions for agility ...

Driving Data Center Innovation: Huawei at DataCloud Global

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[Cannes, France, June 11, 2025] Huawei Digital Power highlighted its latest innovations in sustainable energy and digital infrastructure at DataCloud Global Congress 2025 (June 4–5), one of the world''s

Modular Data Center Design for Rapid AI Deployment

Modular AI data centers now supporting 100kW+ per rack with integrated liquid cooling. Pre-fabricated CDU and manifold integration standard.

Global Modular Data Center Market Set to Surge from

The modular data center market offers significant growth opportunities driven by demand for scalability, rapid deployment, sustainability,

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters, common types,

What Is StarryLink Optical Module? Why Do We Need It?

The StarryLink optical module is a core component developed by Huawei for data center networks. It delivers ultra-long-distance transmission, exceptional reliability, and enhanced security,

Modular Data Center Market

[383 Pages Report] Modular data center market size, share, analysis, trends & forecasts. The global market for modular data center categorized by solutions, form factor (ISO containers (20 feet, 40

Modular Data Center Companies

Top Modular Data Center Companies, Leaders & Major Players Explore list of the top Modular Data Center companies based on extensive research conducted by Mordor Intelligence analysts and

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