

Cost of Modular Data Center Construction



Article Overview

Modular data center construction typically costs between \$9.3 million and \$15 million per MW of critical load, with actual pricing influenced by module type, power density, site preparation, and logistics.

Cost Overview

Modular data centers are often cost-competitive with traditional builds, though not automatically cheaper. In the U.S., construction costs generally range from \$9.3M to \$15M per MW, averaging around \$11.7M per MW for major markets, excluding owner-furnished items and tenant-specific costs . For example, a 440 kW Tier III modular build can cost approximately \$5.39M, equating to roughly \$12.3M per MW . Micro modular units, designed for smaller deployments (3-20 kVA), are priced based on cabinet count and power requirements, making them ideal for small businesses or branch offices .

Key Cost Drivers

- **Module Costs:** Include structural housing, factory integration, embedded safety systems, and sometimes monitoring software. Factory integration increases material costs but reduces field labor and commissioning risk . Skid-mounted modules can save up to 40% compared to full enclosure designs if space and placement allow .
- **Power and Cooling Infrastructure:** More than half of the construction budget typically goes to critical capacity, including electrical distribution, PDUs, and cooling systems. Higher rack density increases CAPEX due to more robust infrastructure requirements .
- **Site Preparation and Civil Works:** Grading, foundations, drainage, fencing, and cra...

Article Content

Data Center Buildout Cost: Complete Pricing Guide

Data center buildout costs depend heavily on factors like facility size, geographic location, tier classification, and the

Modular Data Centers: When They Work, and When They Don't

Modular data centers offer fresh opportunities for the industry, but that doesn't mean they are right for every occasion.

Unlocking Efficiency and Agility: The Guide to Modular Data Centers

Find out how modular data centers can ensure scalability for future expansions, embody repeatable designs, and

The Complete Guide to Modular Data Center Solutions

Reduced costs – Modular data centers also tend to be 30 percent less expensive than stick-built data centers. Off-site factory

MDC Presentation MB

Designing electrical systems for prefabricated modular data centers presents several unique challenges due to their modular, pre

Exploring Modular Data Centers: Benefits, Design, And Deployment

Modular data centers can be more cost-effective compared to traditional data centers due to several factors. The use

Data centre construction cost index 2025-2026 | Turner & Townsend

It covers 52 markets, providing a broader view of construction costs across both established and emerging hubs. It includes an index

5 Factors for Assessing Total Data Center Cost

We break down the main data center cost variables, where they affect total spending, and how they impact total cost of

Modular Data Centers: Scalable & Cost-Effective Solutions

Discover how Mobile Modular's prefabricated data centers offer rapid deployment, scalability, and cost savings for

Modular Data Center Cost: A Realistic 2026 Breakdown

Modular data center costs range from \$7,000 to \$12,000 per kW depending on capacity, redundancy requirements,

Modular Data Center Cost: CAPEX, OPEX & Timeline Drivers

This piece breaks down the cost drivers that actually move the needle – on CAPEX, on OPEX, and on timeline. By

Modular vs. Traditional Construction, a total ownership cost comparison

As more and more organization are now passing or adopting more cloud-based solutions, the construction of data centres is

Best Practices for Planning and Deploying Modular Data Centers

An example of Baselayer's Core modular data center model. IE Corp/Baselayer
There's a lot to love about modular

Data Centre Costs Explained: What You Actually Pay

Complete breakdown of data centre costs including power, colocation, construction, and operating expenses. Real pricing data

How Much Does it Cost to Build a Data Center?

How much does it cost to build a data center, including construction of the building and equipping the

How Much Will a Data Center Cost You?

Keeping Data Center Costs Low with Modular Construction When it comes to building data centers economically,

Data Center Construction Costs Explained

Data center construction averages \$10-\$12 million per MW, with MEP systems consuming up to 50% of budgets. Land acquisition,

Modular data center

A modular data center system is a portable method of deploying data center capacity. A modular data center can be placed

How Much Does a Data Center Cost? The Complete Guide To 2026

See what a data center really costs in 2026, from build price per megawatt to monthly operating costs. A clear

Modular Data Center Guide: Types & When It Wins | ModulEdge

Modular data centers: 5 form factors, what's inside, economics, and when prefabricated wins over traditional builds for

Optimizing Data Center Construction with Prefabrication

Modular and Prefabricated Solutions: Prefabrication and modular construction techniques have gained traction in the

Modular Data Center Market Size | Industry Report, 2030

Organizations are seeking flexible and cost-effective alternatives to traditional data centers, and modular data centers provide a

Data Center Construction Costs Explained

Data center construction costs millions. Don't let budget blindness catch you by surprise on your next build with this complete guide.

Data Center Construction Costs 2026: \$/MW, \$/sqft

2026 data center build costs by capacity, region, and tier. Why \$/MW is climbing, how labor and power are

Modular Data Center Cost: CAPEX, OPEX & Timeline Drivers

What actually drives modular data center pricing? A framework for understanding CAPEX, OPEX, and timeline —

Data Center Infrastructure Cost Analysis 2025: Breakdown of CapEx,

Data center infrastructure costs are escalating under the weight of AI adoption, sustainability regulations, and regional

Cost to Build a Modern Data Center in 2026 Explained

See what it costs to build a modern data center in 2026 with a breakdown of key expenses like site work, power, cooling, and IT

Data Center Construction Costs: Complete Budgeting Breakdown

Building a data center is a high-stakes capital decision with long-term operational implications. Data center

Data Center Construction Cost | 2025 Cost Breakdown | Cortex

Detailed breakdown of data center construction costs. Per MW, per square foot, cost categories, regional variations,

Data Center Construction Cost Guide

Modern data centers typically cost \$7M-\$12M per MW or \$600-\$1,100 per square foot to build. Electrical systems are the single

Data Center Construction Cost Guide

Data center construction cost in 2026 runs about \$7M-\$12M per MW or \$600-\$1,100 per square foot. Compare Tier III, Tier IV, and

The cost of going modular

Modular data centers continue to grow in popularity, as evidenced by growing investment in modular technologies and

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