

Data Center Power - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

<https://marketpublishers.com/r/DFD3EFB910A2EN.html>

Date: July 2024

Pages: 176

Price: US\$ 4,750.00 (Single User License)

ID: DFD3EFB910A2EN

Abstracts

The Data Center Power Market size is estimated at USD 24.33 billion in 2024, and is expected to reach USD 33.92 billion by 2029, growing at a CAGR of 6.87% during the forecast period (2024-2029).

The need for data centers has increased as the population grows increasingly connected and dependent on digital infrastructure. The amount of digital data produced globally is growing rapidly.

Key Highlights

As networks evolve and coverage expands, 5G is expected to play the role of a major enabler of emerging edge use cases that need high-bandwidth and low-latency data transmission. Hyper-scale providers seek next-generation automation with power distribution units (PDUs) to evolve to accommodate the shift. With rising capacities and lower space, PDUs are being constructed with a focus on modularity and providing extra safety.

The need to increase storage capacity has become critical for almost every major enterprise, as there is a continuous rise in data and its respective applications. According to the Edge Delta, the amount of data generated is around 120 zettabytes, which includes 337,080 petabytes (PB) of daily data generation.

Further, the incorporation of AI, robotics, IoT, and other technologies is also expected to increase. This aspect will support the development of data centers in remote places. Critical components such as PDUs and UPS can assist data center operators in decreasing data outages and ensuring systematic management of the power

requirement. As data centers grow in popularity, the use of backup power solutions is also expected to grow.

The demand for DC power solutions is raising the need for installation and maintenance costs of the power components, including the power distribution units, switches, and UPS, in the DC environment, which can be a major challenge for the DC operators worldwide to adopt the advance DC power solutions due to their limited CAPEX budget, which could hinder the market's growth in the future.

Post the COVID-19 pandemic, the cloud market gained significant traction as cloud-based services and tools are increasingly adopted due to organizations deploying remote work and hybrid work culture in various countries. Most data centers across the world witnessed a massive surge in demand owing to the growth of cloud adoption across all sizes of enterprises.

Data Center Power Market Trends

UPS to be the Fastest Growing Solution Type

In the case of critical IT equipment, large data centers use centralized, high-capacity, and uninterruptible power supply systems for power protection. By integrating the most recent power protection technologies, these systems have reached a new level of reliability and efficiency. The most reliable type of data center, UPS, or online double conversion, is capable of handling different input conditions, including power from backup generators, while providing computer-grade output to the essential load.

According to GSMA, the number of Internet of Things (IoT) connections is expected to grow from 2020 to 2030, with an expected total of 24 billion enterprise IoT connections in 2030, along with social media, which has increased the amount of data generated and stored worldwide exponentially. Demand for data center infrastructure and investment in new technologies and innovations to improve energy efficiency, reduce costs, and enhance performance has been stimulated by this growth of data generation.

Further, the growing digitalization in Asia-Pacific is boosting the number of data centers in the region, thereby contributing to the demand for UPS in the region. Moreover, the growing innovations in UPS that meet the increasing demand are analyzed to boost the market growth rate.

For instance, in July 2023, ABB India's Electrification business launched innovative

UPS solutions for data centers. The first-of-its-kind sustainable UPS is part of the ABB EcoSolutions portfolio and complies with the ABB circularity framework. It was designed for high-density computing environments with the greatest efficiency rating and smallest footprint. This aligns with ABB Electrification's Mission to Zero for smart cities. It envisions a zero-emission reality for all and underscores its dedication to providing smart, safe, and sustainable power technologies to the worldwide data center industry.

Asia Pacific is Expected to Witness Growth

The Chinese economy is witnessing a rapid digital transformation driven by the expansion of e-commerce, cloud computing, big data analytics, and artificial intelligence. This surge in digital activities led to a substantial increase in the number and size of data centers nationwide.

Further, the Chinese government has recognized the strategic importance of data centers in supporting economic growth, innovation, and national development goals. As part of its "Internet Plus" initiative and the 14th Five-Year Plan, the government invests heavily in digital infrastructure, including data centers, and provides incentives to attract investments.

The increasing reliance on internet services, including e-commerce, streaming media, online gaming, and social networking in Japan, has driven the need for high availability and reliability of data centers. As internet usage continues to grow, data center operators in Japan are investing in power solutions to ensure uninterrupted operations and prevent downtime within the data centers.

In addition, urban centers in Japan are experiencing rapid population growth and urbanization, leading to increased demand for cloud services and global cloud service providers that generate big data represented by mega cloud platformers in major cities like Tokyo, Osaka, and Nagoya. Smart city initiatives, including deploying IoT sensors, smart grids, and energy management systems, require reliable data center power infrastructure to support their implementation. Hence, data center companies collaborate with power equipment companies to increase their market share.

Data Center Power Industry Overview

The data center power market is fragmented, with multiple vendors present. Players are adopting various strategies, such as mergers and acquisitions, collaborations, and partnerships. Various initiatives are being undertaken by governmental bodies and private data center construction, creating intense competition. Key players are Schneider Electric SE, Fujitsu Ltd, Cisco Technology Inc., Eaton Corporation, and ABB Ltd.

In October 2023, ABB Ltd announced that it had added ZincFive as an approved supplier for its UPS systems, offering nickel-zinc as a battery option alongside lithium-ion and lead-acid, which is now installed and supported as part of an ABB uninterruptible power supply system.

In October 2023, Vertiv partnered with American Electric Power (AEP) and opened its Vertiv Customer Experience Center, featuring a microgrid power solution to help data centers address electrical grid capacity challenges. Vertiv 1.0-megawatt (MW) microgrid includes an Uninterruptible Power Supply (UPS) system, lithium-ion battery, system controls, and other critical components to cater to customer demand who are evaluating the role of microgrids and energy storage systems for their mission-critical power systems.

Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

Contents

1 INTRODUCTION

- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

2 RESEARCH METHODOLOGY

3 EXECUTIVE SUMMARY

4 MARKET INSIGHTS

- 4.1 Market Overview
- 4.2 Industry Attractiveness - Porter's Five Forces Analysis
 - 4.2.1 Bargaining Power of Suppliers
 - 4.2.2 Bargaining Power of Buyers
 - 4.2.3 Threat of New Entrants
 - 4.2.4 Threat of Substitute Products and Services
 - 4.2.5 Degree of Competition

5 MARKET DYNAMICS

- 5.1 Market Drivers
 - 5.1.1 Rising Adoption of Mega Data Centers and Cloud Computing
 - 5.1.2 Increasing Demand to Reduce Operational Costs
- 5.2 Market Restraints
 - 5.2.1 High Cost of Installation and Maintenance
- 5.3 Legal and Regulatory Landscape for Industry
- 5.4 Analysis of Power Requirements in Different Cases

6 TECHNOLOGY LANDSCAPE

- 6.1 Impact of Liquid Cooling on Data Center
- 6.2 H2 and Fuel Cell for Data Center
- 6.3 Sustainable Energy for Data Center

7 MARKET SEGMENTATION

7.1 By Type

7.1.1 Solutions

7.1.1.1 Power Distribution Unit

7.1.1.2 UPS

7.1.1.3 Busway

7.1.1.4 Other Solutions

7.1.2 Services

7.1.2.1 Consulting

7.1.2.2 System Integration

7.1.2.3 Professional Services

7.2 By End-user Application

7.2.1 Information Technology

7.2.2 Manufacturing

7.2.3 BFSI

7.2.4 Government

7.2.5 Telecom

7.2.6 Other End-user Applications

7.3 By Data Center Size

7.3.1 Small and Medium

7.3.2 Large

7.4 By Geography

7.4.1 North America

7.4.2 Europe

7.4.3 Asia-Pacific

7.4.4 Rest of the World

8 COMPETITIVE LANDSCAPE

8.1 Company Profiles*

8.1.1 Schneider Electric SE

8.1.2 Fujitsu Ltd

8.1.3 Cisco Technology Inc.

8.1.4 ABB Ltd

8.1.5 Eaton Corporation

8.1.6 PDU Experts UK Ltd

8.1.7 Rittal GmbH & Co. KG

8.1.8 Schleifenbauer Products BV

8.1.9 Vertiv Holdings Co.

8.1.10 Legrand SA

8.1.11 Black Box Corporation

9 INVESTMENT ANALYSIS

10 FUTURE OF THE MARKET

I would like to order

Product name: Data Center Power - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

Product link: <https://marketpublishers.com/r/DFD3EFB910A2EN.html>

Price: US\$ 4,750.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/DFD3EFB910A2EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

