

# **Data Center Power Quality Solutions Market Forecasts to 2034 – Global Analysis By Solution Type (Uninterruptible Power Supply (UPS) Systems, Power Conditioning & Voltage Regulation Systems, Power Monitoring & Measurement Solutions and Other Solution Types), Component, Data Center Type, Power Rating, Deployment Mode, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Data Center Power Quality Solutions Market is accounted for \$32.37 billion in 2026 and is expected to reach \$66.91 billion by 2034 growing at a CAGR of 9.5% during the forecast period. Data Center Power Quality Solutions are specialized systems and technologies designed to ensure a reliable, stable, and efficient power supply within data centers. These solutions monitor, regulate, and optimize electrical parameters such as voltage, current, and frequency to prevent power disturbances, fluctuations, or outages that can disrupt critical IT operations. Key components include uninterruptible power supplies (UPS), voltage regulators, surge protectors, and power distribution units (PDUs). By minimizing risks of downtime, equipment damage, and data loss, power quality solutions enhance operational continuity, energy efficiency, and equipment lifespan, making them essential for modern high-performance data center infrastructures.

## **Market Dynamics:**

Driver:

## Increasing demand for uninterrupted power supply

Enterprises require continuous uptime to support mission-critical applications and avoid costly downtime. The surge in cloud adoption, AI workloads, and real-time analytics amplifies power reliability requirements. Hyperscale operators are investing heavily in advanced power quality solutions to ensure resilience. Regulatory mandates and service-level agreements further reinforce the demand for uninterrupted supply. Consequently, the market is driven by the imperative to guarantee seamless operations across global data centers.

### Restraint:

#### Complexity in integrating legacy infrastructure

Many data centers operate with outdated systems that lack compatibility with advanced technologies. Retrofitting requires high capital expenditure and complex engineering adjustments. Operators face risks of downtime during integration, which deters rapid adoption. The lack of skilled workforce to manage hybrid setups adds further difficulty. As a result, integration complexity remains a key restraint in scaling power quality solutions.

### Opportunity:

#### Growth in cloud and hyperscale data centers

The rapid expansion of cloud and hyperscale data centers is creating substantial opportunities for power quality solutions. These facilities demand robust and scalable systems to manage massive workloads. Rising investments in hyperscale campuses across North America, Europe, and Asia Pacific are fueling adoption. Cloud providers prioritize energy efficiency and reliability, driving demand for advanced UPS and monitoring systems. Emerging technologies such as AI and IoT further increases the reliance on resilient power infrastructure. Therefore, hyperscale growth acts as a catalyst for the power quality solutions market.

### Threat:

#### Intense competition among solution providers

Numerous vendors offer differentiated UPS systems, monitoring tools, and energy

management solutions. Price wars and commoditization pressure margins, especially in mature markets. Rapid technological innovation forces companies to continuously upgrade offerings. Smaller players struggle to compete with established brands that dominate hyperscale contracts. Consequently, competitive intensity poses a significant threat to sustained profitability.

### **Covid-19 Impact:**

The Covid-19 pandemic accelerated digital adoption, boosting demand for resilient power quality solutions. Remote work, e-commerce, and streaming services drove unprecedented traffic volumes in data centers. However, supply chain disruptions delayed equipment deliveries and project timelines. Operators faced challenges in workforce availability and site access during lockdowns. Despite short-term constraints, long-term demand surged as enterprises prioritized resilience and uptime. Overall, Covid-19 acted as both a disruptor and a growth catalyst for the market.

The uninterruptible power supply (UPS) systems segment is expected to be the largest during the forecast period

The uninterruptible power supply (UPS) systems segment is expected to account for the largest market share during the forecast period owing to its critical role in ensuring uptime. UPS systems provide immediate backup during outages, safeguarding mission-critical workloads. Their adoption is widespread across hyperscale, colocation, and enterprise data centers. Increasing reliance on cloud services and AI workloads amplifies the need for robust UPS infrastructure. Technological advancements in modular and energy-efficient UPS designs further drive adoption. Consequently, UPS systems dominate the market as the backbone of power quality solutions.

The edge data centers segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the edge data centers segment is predicted to witness the highest growth rate due to rising demand for localized compute. Edge facilities process data closer to end-users, reducing latency and improving service delivery. The proliferation of IoT, 5G, and real-time analytics intensifies reliance on edge deployments. Power quality solutions are essential to ensure resilience in distributed environments. Investments in modular UPS and monitoring systems support rapid edge expansion. Therefore, edge data centers emerge as the fastest-growing segment in the market.

### **Region with largest share:**

During the forecast period, the North America region is expected to hold the largest market share owing to its mature data center ecosystem. The presence of hyperscale operators such as Amazon Web Services, Microsoft Azure, Google Cloud, and Meta drives concentrated investment. Strong enterprise adoption of cloud services reinforces demand for resilient power quality solutions. Regulatory frameworks and advanced energy infrastructure support rapid deployment of UPS and monitoring systems. The region benefits from high internet penetration and digital transformation initiatives across industries. Investments in renewable energy integration further strengthen the market.

### **Region with highest CAGR:**

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR as digital adoption accelerates across emerging economies. Rising internet penetration and mobile-first ecosystems fuel hyperscale and edge data center growth. Governments in China, India, and Southeast Asia are investing heavily in digital infrastructure. Rapid adoption of 5G and IoT applications intensifies the need for resilient power quality solutions. Cloud adoption among SMEs and startups further accelerates market expansion. Increasing focus on energy efficiency and sustainability drives demand for advanced UPS systems.

### **Key players in the market**

Some of the key players in Data Center Power Quality Solutions Market include Schneider Electric SE, Vertiv Holdings Co., ABB Ltd., Eaton Corporation plc, Legrand SA, General Electric Company, Siemens AG, Mitsubishi Electric Corporation, Toshiba Corporation, Huawei Technologies Co., Ltd., Delta Electronics, Inc., Cummins Inc., Caterpillar Inc., Rolls-Royce Holdings plc and Hitachi, Ltd.

### **Key Developments:**

In September 2024, Schneider Electric completed the acquisition of EcoAct, a climate consulting and net-zero solutions firm, strengthening its ability to provide data center clients with end-to-end sustainability and energy transition strategies alongside its power quality hardware.

In February 2024, Vertiv acquired CoolTera Ltd., a UK-based provider of liquid cooling solutions for high-performance computing, significantly enhancing its portfolio of direct-to-chip cooling technologies essential for next-generation AI data centers.

#### Solution Types Covered:

- Uninterruptible Power Supply (UPS) Systems
- Power Conditioning & Voltage Regulation Systems
- Power Monitoring & Measurement Solutions
- Harmonic Mitigation & Power Filtering Systems
- Other Solution Types

#### Components Covered:

- Hardware
- Software
- Services

#### Data Center Types Covered:

- Hyperscale Data Centers
- Enterprise Data Centers
- Colocation Data Centers
- Edge Data Centers
- Other Data Center Types

Power Ratings Covered:

Below 500 kVA

500 kVA – 1,500 kVA

Above 1,500 kVA

Deployment Modes Covered:

On-Premises

Modular / Scalable Deployment

End Users Covered:

IT & Telecommunications

BFSI

Healthcare & Life Sciences

Government & Defense

Manufacturing & Industrial

Retail & E-Commerce

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

**What our report offers:**

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2028, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

**Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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