

# **Global Data Center Generators Market Size, Share, Trends & Analysis by Fuel Type (Diesel Generators, Natural Gas Generators, Bi-Fuel Generators), by Capacity (Less Than 1 MW, 1-2 MW, Greater Than 2 MW), by End User (Cloud Service Providers, Colocation Data Centers, Enterprise Data Centers, Hyperscale Data Centers) and Region, with Forecasts from 2025 to 2034.**

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## **Abstracts**

The Global Data Center Generators Market is poised to witness substantial growth from 2025 to 2034, driven by the rising demand for uninterrupted power supply and the rapid expansion of data centers across the globe. Data center generators are critical for ensuring continuous operations during power outages, maintaining server uptime, and supporting cloud computing, enterprise, and hyperscale data center infrastructure. Valued at USD XX.XX billion in 2025, the market is projected to grow at a CAGR of XX.XX%, reaching USD XX.XX billion by 2034.

## **Definition and Scope of Data Center Generators**

Data center generators are backup power systems designed to provide electricity to data centers in the event of power failures. They include diesel, natural gas, and bi-fuel generators capable of delivering reliable power across a range of capacities. The market encompasses generators used in cloud service provider facilities, colocation data centers, enterprise data centers, and hyperscale data centers. These systems are essential for minimizing downtime, protecting critical infrastructure, and supporting high-performance computing operations.

## Market Drivers

**Growing Demand for Cloud Services and Data Storage:** Expansion of cloud computing, big data analytics, and enterprise IT infrastructure is driving demand for reliable backup power solutions.

**Increase in Data Center Construction:** The proliferation of hyperscale, colocation, and enterprise data centers, particularly in North America, Europe, and Asia-Pacific, is fueling generator adoption.

**Regulatory Requirements for Continuous Operations:** Governments and industry standards emphasize high availability and uptime, making backup power systems a critical requirement.

**Technological Advancements in Generator Efficiency:** Development of energy-efficient and low-emission generators is encouraging adoption, especially among environmentally-conscious operators.

## Market Restraints

**High Capital and Operational Costs:** Advanced data center generators require significant upfront investment and ongoing maintenance, which can limit adoption for smaller facilities.

**Fuel Availability and Price Volatility:** Dependence on diesel, natural gas, and bi-fuel supplies can impact operational costs and reliability.

**Environmental Concerns:** Emissions from diesel and natural gas generators may pose environmental challenges, requiring compliance with strict regulations.

## Opportunities

**Hybrid and Renewable Integration:** Opportunities exist to integrate generators with solar, wind, and battery storage systems to enhance sustainability and reduce operational costs.

**Expansion in Emerging Markets:** Rapid digitalization in Asia-Pacific, Latin America, and the Middle East presents significant growth potential for data center generators.

**Growing Hyperscale Data Center Demand:** As hyperscale facilities increase in size and complexity, demand for high-capacity, reliable generators continues to rise.

**Retrofit and Upgrade Market:** Upgrading aging data center infrastructure with modern generators offers opportunities in the aftermarket segment.

## **Market Segmentation Analysis**

### **By Fuel Type**

Diesel Generators

Natural Gas Generators

Bi-Fuel Generators

### **By Capacity**

Less Than 1 MW

1–2 MW

Greater Than 2 MW

### **By End User**

Cloud Service Providers

Colocation Data Centers

Enterprise Data Centers

Hyperscale Data Centers

## Regional Analysis

**North America:** Dominates the data center generator market due to robust cloud infrastructure, extensive enterprise IT adoption, and strict uptime regulations.

**Europe:** Growth is driven by increasing deployment of colocation and hyperscale data centers, alongside sustainability regulations for power generation.

**Asia-Pacific:** The fastest-growing region, led by China, India, Japan, and Southeast Asia, with rapid digitalization, cloud adoption, and hyperscale data center expansion.

**Latin America:** Emerging demand for enterprise and colocation data centers is increasing the need for reliable backup power solutions.

**Middle East & Africa:** Investments in cloud computing, hyperscale data centers, and IT infrastructure are driving generator adoption across key markets.

The Global Data Center Generators Market is positioned for robust growth over the forecast period, driven by increasing data center deployments, regulatory compliance requirements, and rising demand for continuous power solutions. As enterprises, cloud providers, and hyperscale operators focus on uptime, efficiency, and sustainability, the market for advanced data center generators is expected to expand, offering substantial opportunities for innovation and market penetration.

## Competitive Landscape

The Global Data Center Generators Market is highly competitive, with players continually innovating to enhance efficiency, reliability, and environmental compliance.

Key players in the market include:

Cummins Inc.

Caterpillar Inc.

Generac Holdings Inc.

Kohler Co.

MTU Onsite Energy GmbH

Aggreko Plc

Siemens AG  
ABB Ltd.  
Wartsila Corporation  
Himoinsa

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