

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

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Abstracts

The India Data Center Power Market size is estimated at USD 0.84 billion in 2024, and is expected to reach USD 2.26 billion by 2029, growing at a CAGR of 18.02% during the forecast period (2024-2029).

The increasing demand for cloud computing among SMEs, government regulations for local data security, and growing investment by domestic players are some of the major factors driving the demand for data centers in the country.

Under Construction IT Load Capacity: The upcoming IT load capacity of the Taiwan data center market is expected to reach 4765.19 MW by 2029.

Under Construction Raised Floor Space: The country's construction of raised floor area is expected to increase to 1.42 million sq. ft by 2029.

Planned Racks: The country's total number of racks to be installed is expected to reach 71,000 units by 2029. Bangalore is expected to house the maximum number of racks by 2029.

Planned Submarine Cables: Close to 25 submarine cable systems connect India; many are under construction. One such cable is 2Africa, which stretches over 45,000 kilometers and has landing points from Mumbai.

The government considers power-saving measures such as subsidies to increase energy efficiency or productivity and moves toward a low-carbon system to solve the electricity problem and crisis. To support the above policy and reduce energy

consumption, key market players are introducing efficient power management systems such as PDUs, busways, and UPS to control unnecessary expenditures in data centers, which is expected to increase market growth.

India Data Center Power Market Trends

The IT & Telecom Segment is Expected to Have Significant Market Share

Government, BFSI, and e-commerce are expected to drive the demand in the region. The government has widely promoted cashless payments in the country. With the demonetization of currency notes in 2016, Indian users increasingly transitioned to cashless payment services such as Gpay, Phonepay, and Amazon Pay, which work on the UPI interface.

After the COVID-19 pandemic, the usage of cashless services has increased proportionally and is expected to reach 750 million users shortly. The availability of scan codes and ease of transaction led consumers to use the service increasingly. This is expected to increase the IT load capacity of the BFSI segment from 106.5 MW in 2023 to 594.7 MW by 2029 at a CAGR of 23.54%.

Government services offered online have become user-friendly, which has led more than 77% of users to access them. Hence, the government segment's IT load capacity is expected to increase from 39.4 MW in 2023 to 237.9 MW by 2029 at a CAGR of 24.87%.

Huge discounts that are convenient and comfortable offered to customers through online shopping websites have led to the wide acceptance of e-commerce in India. E-commerce services are expected to have 500 million shoppers by 2030. Thus, the IT load capacity of the e-commerce segment is anticipated to increase from 57.9 MW in 2023 to 317.2 MW by 2029 at a CAGR of 23.22%.

Monitored PDU Holds Significant Share in the Market

Monitored rack PDUs are essential components in data center and server room infrastructure, providing real-time monitoring of power usage, voltage, current, and other electrical parameters. This data helps administrators make informed decisions about power allocation and capacity planning.

By tracking power usage trends, administrators can plan for future growth and ensure that power capacity is not exceeded, preventing overloads that could lead to equipment failures. It also helps identify inefficiencies and optimize energy usage. Eliminating unnecessary power consumption can save costs and reduce environmental footprint. Also, it allows administrators for remote access and control, reducing the need for physical presence and minimizing operational disruptions.

The increasing focus on digitalization, Internet penetration, and e-commerce sales across the country creates a greater need for storage facilities, resulting in a huge demand for data centers and a rise in power consumption. The growing demand for data storage has led to the deployment of intelligent power distribution units (PDUs) against simple multi-socket rack installations with server and network equipment, which optimize power consumption in data centers.

Key market players are focusing on introducing efficient power management systems because of the advancements mentioned with monitored PDUs and the necessity to reduce electricity consumption as per government measures in the country. In May 2023, Eaton, which provides the power management service, launched G3 Universal Input Rack PPDUs with dynamic C39 outlets capable of accommodating different plug configurations and input voltage requirements. To meet the most diverse data center rack power requirements, G3UPDU has added new features.

In May 2023, Legrand, a significant global provider of electrical and digital building infrastructures, introduced the next generation of intelligent rack PDUs, PRO4X, and Raritan PX4. These new intelligent rack PDU designs revolutionize capacity planning, environmental monitoring, physical and digital access control, workload optimization, and uptime initiatives. Such developments in the segment are predicted to boost regional demand during the forecast period.

Tulip data center, located in Bengaluru, with an IT load capacity of 100 MW, is the first mega-size data center in the country, which came into operation in 2012.

Sify, STT, Tulip, and NXTRA own mega-sized data centers, all Tier 3 certified.

AdaniConneX, a joint venture between Adani Enterprises and EdgeConneX, is projected to drive this category during the forecast period. Six mega-size DC projects, spread across the country, are under construction. Their combined IT load capacity is estimated to be 1 GW at total capacity upon completion. Sify, Yotta Infrastructures,

CtrlS, and STT Telemedia are also developing DCs.

India Data Center Power Industry Overview

The Indian data center power market is highly concentrated, with multiple vendors. Players are adopting several strategies, such as mergers and acquisitions (M&A), collaborations, and partnerships. Various initiatives are undertaken by governmental bodies and private data center construction, creating intense competition. The key players are Schneider Electric SE, ABB Ltd, Rittal GmbH & Co. KG, Fujitsu Limited, and Legrand Group.

January 2024: Vertiv announced the plans to double its manufacturing capacity for busways, switchgear, and integrated modular solutions (IMS) by 2025. The expansion plans include increasing utilization and footprint in the United Arab Emirates, Ireland, South Carolina (United States), Mexico, Slovakia, and Northern Ireland.

November 2023: ABB Ltd announced the launch of the Protecta Power panel board, designed for industrial, commercial, and institutional buildings. It is integrated with digital monitoring and control technology, enhancing durability and safety.

Additional Benefits:

The market estimate (ME) sheet in Excel format

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