

Power Factor Correction Market Forecasts to 2032 – Global Analysis By Type (Active PFC, Passive PFC, Hybrid PFC and Automatic PFC), Reactive Power (0 -200 KVAR, 200 -500 KVAR, 500 -1500 KVAR and Above 1500 KVAR), Sales Channel, Application and By Geography

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Abstracts

According to Statistics MRC, the Global Power Factor Correction Market is accounted for \$2.44 billion in 2025 and is expected to reach \$4.00 billion by 2032 growing at a CAGR of 7.3% during the forecast period. Power Factor Correction (PFC) is a technique used to improve the efficiency of electrical power systems by optimizing the power factor, which is the ratio of apparent power (supplied to the circuit) to real power. Motors and transformers are examples of inductive loads that lower power factor in many commercial and industrial setups, resulting in energy losses and higher utility bills. By introducing capacitive elements into the system, PFC counteracts the effects of induction and raises the power factor toward unity (1.0). Moreover, this helps maintain compliance with power quality standards, lowers demand charges on electricity bills, and improves voltage regulation and energy waste reduction.

According to a study by the Uganda Ministry of Energy (Journal of Economic Structures, 2016), implementation of PFC in industrial/commercial enterprises increased average power factor from 0.68 to 0.95 and saved up to 8.04 MVA of peak demand by end?2014.

Market Dynamics:

Driver:

Growing demand for commercial and industrial electricity

Due to the extensive use of inductive equipment like motors, transformers, and welding machines, the increasing demand for electricity across the commercial and industrial sectors has greatly increased the load on power grids, frequently resulting in low power factor. Reactive power consumption by these devices results in inefficient energy use and voltage drops. Power factor correction has emerged as a strategic solution as industries look to optimize their energy usage and reduce operating costs. Additionally, PFC systems are becoming more and more crucial in high-demand industries because they allow companies to lower overall electricity consumption and avoid overloading the distribution network by reducing reactive power and increasing power delivery efficiency.

Restraint:

High installation and initial investment costs

The significant upfront costs of installing PFC systems, particularly those with advanced or active PFC technologies, are one of the main factors impeding the market's expansion. Small and medium-sized businesses (SMEs) or facilities with tight budgets may find the initial capital investment prohibitive, despite the significant long-term savings from lower electricity bills and increased energy efficiency. Customized design, engineering know-how, and integration with pre-existing electrical infrastructure are frequently needed for these systems, which raises the total cost. Furthermore, the ROI might not be strong enough to support the cost in areas with cheap electricity rates or little utility fines for low power factor, which would restrict adoption.

Opportunity:

Integration with green infrastructure and smart buildings

Power factor correction systems can now be integrated into contemporary electrical design owing to the global trend toward smart buildings and green infrastructure. Technologies that support grid-friendly operations, optimize power quality, and adhere to stringent regulatory standards are becoming more and more necessary for LEED-certified buildings, energy-efficient data centers, and intelligent commercial complexes. PFC systems support other energy management (EMS) and building automation (BAS) systems in addition to helping to meet these standards. Moreover, the need for

intelligent, automated PFC solutions is anticipated to grow quickly due to rising investments in smart cities and sustainable real estate, particularly in areas like Europe and the Middle East.

Threat:

Absence of qualified experts in installation and upkeep

PFC systems still require qualified electrical engineers and technicians for proper design, installation, and maintenance, despite their technological maturity. In many places, especially in rural or developing areas, there is a severe lack of qualified experts who can properly apply PFC solutions. Systems that are improperly configured or maintained may perform poorly or even cause damage to linked devices, which erodes confidence in PFC technology. Additionally, this skills gap poses a significant risk since it can lower adoption rates, raise the frequency of system failures, and harm end users' perceptions, especially in industries where power quality management is not well-known.

Covid-19 Impact:

The COVID-19 pandemic affected the Power Factor Correction (PFC) market in a variety of ways. The market was disrupted in the early stages of the pandemic by global supply chain failures, industrial project delays, and temporary manufacturing facility shutdowns. As a result, there was less demand for PFC systems in important industries like heavy industries, construction, and the automotive sector. But as economies started to recover and stimulus plans prioritized energy efficiency and infrastructure improvements, the market gradually recovered. Furthermore, PFC solutions became even more popular as post-pandemic recovery plans placed more emphasis on grid stability and cost optimization, especially in industries that prioritized digital transformation and operational efficiency.

The active PFC segment is expected to be the largest during the forecast period

The active PFC segment is expected to account for the largest market share during the forecast period. This dominance is explained by its capacity to provide dynamic, real-time reactive power compensation, which makes it extremely efficient at handling the fluctuating and non-linear loads that are frequently encountered in commercial and industrial settings. Moreover, power electronic converters are used in active PFC systems to enhance voltage stability, lower harmonic distortion, and maintain a power

factor close to unity. Particularly as industries modernize and incorporate smart energy solutions, their efficiency, flexibility, and adherence to global energy standards have made them the go-to option over conventional passive or hybrid systems.

The 200–500 KVAR segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the 200–500 KVAR segment is predicted to witness the highest growth rate. This segment is ideal for medium-sized commercial and industrial facilities, including manufacturing facilities, retail centers, and institutional buildings, because it balances cost and capacity. The demand for mid-range PFC solutions has increased as companies strive to optimize energy usage, minimize utility penalties, and adhere to energy efficiency standards. Additionally, the 200–500 KVAR systems are becoming more and more popular in both developed and emerging markets due to their scalability, simplicity of installation, and capacity to handle dynamic load profiles without the cost or complexity of higher-capacity systems.

Region with largest share:

During the forecast period, the Asia-Pacific region is expected to hold the largest market share, fueled by the fast urbanization, industrialization, and growth of manufacturing sectors in nations like South Korea, Japan, China, and India. The adoption of PFC systems has been greatly accelerated by the region's high electricity consumption, rising energy efficiency demand, and strict regulatory requirements pertaining to grid stability and power quality. The market has grown even faster as a result of encouraging government programs that support energy optimization and infrastructure development, as well as increased utility fines for low power factor. Furthermore, Asia-Pacific's position as the largest regional market for power factor correction solutions is cemented by the region's abundance of industrial facilities, rising investments in smart grid technologies, and integration of renewable energy sources.

Region with highest CAGR:

Over the forecast period, the Middle East and Africa (MEA) region is anticipated to exhibit the highest CAGR. The development of urban infrastructure, accelerating industrialization, and growing power distribution networks in nations like Saudi Arabia, the United Arab Emirates, South Africa, and Egypt are the main drivers of this quick growth. In order to improve grid stability and lower transmission losses, governments in the area are investing more in energy efficiency initiatives and updating their electrical

infrastructure. The need to optimize power quality in commercial and industrial facilities, as well as the increasing adoption of renewable energy projects, is also driving up demand for PFC systems. High-growth prospects in the global PFC market are prevalent in the MEA region due to its unrealized market potential, growing electricity demand, and regulatory emphasis on enhancing power factor.

Key players in the market

Some of the key players in Power Factor Correction Market include Delta Electronics, Inc, Hitachi Energy, Emerson Electric Co., ABB Ltd., Eaton Corporation, GE Vernova, Nissin Electric, Crompton Greaves Limited, Bharat Heavy Electricals Limited, Larsen & Toubro Limited, Mitsubishi Electric Corporation, Rockwell Automation, Inc., Schneider Electric SE, Ortea SpA and Siemens AG.

Key Developments:

In June 2025, Delta Electronics has entered a long-term agreement with Ventus Energy Consultancy to use wind energy for its operations in Tamil Nadu, aiming to cut its carbon emissions. Under the 12-year deal, Delta will purchase 9.6 million units of wind-generated electricity annually to support its manufacturing sites across the state. This shift is projected to lower the company's carbon output by about 6,979 metric tonnes each year, reducing reliance on fossil fuel-based power.

In March 2025, Hitachi Energy has signed a multi-year strategic collaboration agreement (SCA) with Amazon Web Services (AWS) to accelerate how utility and energy-intensive companies deploy cloud-based solutions and advance the energy transition. The initial focus of the agreement delivers Hitachi Vegetation Manager, an artificial intelligence (AI)-driven vegetation management system, on AWS. This innovative solution aims to significantly reduce power or system outages caused by vegetation interference with critical infrastructure.

In March 2025, ABB has signed a Leveraged Procurement Agreement (LPA) to support as the automation partner for Dow's Path2Zero project at Fort Saskatchewan in Alberta, Canada. According to Dow, the project, which is currently under construction, will create the world's first net-zero Scope 1 and 2 greenhouse gas emissions ethylene and derivatives complex¹, producing the essential building blocks needed for many of the materials and products that society relies on.

Types Covered:

Active PFC

Passive PFC

Hybrid PFC

Automatic PFC

Reactive Powers Covered:

0 -200 KVAR

200 -500 KVAR

500 -1500 KVAR

Above 1500 KVAR

Sales Channels Covered:

Distributors

OEM Direct

Applications Covered:

Industrial

Renewables

Commercial

Datacenters

EV Charging Infrastructure

Other Applications

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 2024, 2025, 2026, 2028, and 2032
- 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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