

Electric Automation Market Forecasts to 2030 – Global Analysis By Type (Fixed/Hard Automation, Programmable Automation and Flexible/Soft Automation), Process Components (Sensors & Measurement Devices, Actuators & Motion Controls, Power Supply Units, Communication Interfaces, Safety Systems and Industrial Controllers), Control Systems, Functional Area, Application, End User and By Geography

<https://marketpublishers.com/r/E120869C5409EN.html>

Date: January 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: E120869C5409EN

Abstracts

According to Statistics MRC, the Global Electric Automation Market is accounted for \$234.6 billion in 2024 and is expected to reach \$389.1 billion by 2030 growing at a CAGR of 8.8% during the forecast period. Electric automation refers to the use of electrical systems, devices, and technologies to control, monitor, and optimize industrial processes and operations with minimal human intervention. It integrates components such as sensors, actuators, programmable logic controllers (PLCs), and software to enhance efficiency, accuracy, and productivity. Widely applied in manufacturing, energy, and transportation, electric automation streamlines repetitive tasks, reduces errors, and ensures real-time decision-making. This innovation is crucial for achieving cost-effectiveness, safety, and scalability in modern industrial and commercial environments.

According to a report by the International Energy Agency (IEA), the global demand for electricity is projected to grow by about 50% between 2021 and 2050.

Market Dynamics:

Driver:

Government regulations and incentives

Government regulations and incentives are key drivers for the electric automation market. Policies promoting energy efficiency and sustainability encourage industries to adopt automated solutions that reduce energy consumption and emissions. Incentives such as tax breaks and subsidies further support the transition to automation by offsetting initial costs. These measures not only drive technological adoption but also foster innovation, as companies seek to meet regulatory standards while benefiting from financial incentives. As governments worldwide prioritize environmental goals, the demand for electric automation solutions continues to rise.

Restraint:

Integration challenges

Integration challenges pose a significant restraint on the electric automation market. The complexity of integrating new automated systems with existing infrastructure can lead to increased costs and extended implementation timelines. Compatibility issues between different technologies and platforms can further complicate the process, requiring specialized expertise and resources. These challenges can deter companies from adopting automation solutions, particularly small and medium-sized enterprises with limited budgets and technical capabilities, thereby slowing market growth.

Opportunity:

Growth in electric vehicles

The growth in electric vehicles (EVs) presents a substantial opportunity for the electric automation market. As the automotive industry shifts towards electrification, there is an increasing need for automated manufacturing processes to enhance efficiency and scalability. Automation technologies play a crucial role in battery production, assembly lines, and quality control, supporting the rapid expansion of EV production. This trend is expected to drive demand for advanced automation solutions, offering significant growth potential for market players.

Threat:

Cybersecurity risks

Cybersecurity risks threaten the electric automation market as increased connectivity exposes systems to potential cyberattacks. Automated processes rely on data exchange across networks, making them vulnerable to breaches that could disrupt operations or compromise sensitive information. As automation becomes more prevalent, ensuring robust cybersecurity measures is critical to maintaining system integrity and trust. Failure to address these risks can result in financial losses, reputational damage, and regulatory penalties, posing a significant threat to market stability.

Covid-19 Impact:

The COVID-19 pandemic accelerated the adoption of electric automation technologies as businesses sought to maintain operations amid workforce disruptions. Automation helped ensure continuity by reducing dependency on manual labor and enhancing remote monitoring capabilities. This shift highlighted the importance of resilient automated systems, driving further investment in technology despite initial supply chain challenges.

The fixed/hard automation segment is expected to be the largest during the forecast period

The fixed/hard automation segment is expected to account for the largest market share during the forecast period due to its efficiency in high-volume production environments. These systems are designed for repetitive tasks with minimal variability, making them ideal for industries like automotive and electronics manufacturing. Their ability to deliver consistent output with reduced labor costs supports their dominance in the market.

The industrial IoT platforms segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the industrial IoT platforms segment is expected to witness the highest CAGR. The integration of IoT technology enhances data collection and analysis capabilities, enabling smarter decision-making and process optimization. This segment's rapid growth is driven by increasing demand for real-time monitoring and predictive maintenance solutions across various industries seeking to improve operational efficiency.

Region with largest share:

The Asia Pacific region is anticipated to account for the largest market share during the forecast period due to its robust manufacturing sector and strong emphasis on technological advancements. Countries like China, Japan, and South Korea lead in adopting automation technologies to enhance productivity and competitiveness. Government initiatives supporting industrial modernization further bolster this region's dominant position.

Region with highest CAGR:

The Asia Pacific region is anticipated to register the highest growth rate over the forecast period due to rapid industrialization and increasing investments in smart manufacturing solutions. Emerging economies within this region are embracing digital transformation initiatives, driving demand for advanced automation technologies. As these countries continue to develop their industrial capabilities, Asia Pacific remains a key growth area for the market.

Key players in the market

Some of the key players in Electric Automation Market include ABB Ltd., Siemens AG, Rockwell Automation, Inc., Honeywell International Inc., Schneider Electric, Emerson Electric Co., Mitsubishi Electric, Yokogawa Electric Corporation, Omron Corporation, FANUC Corporation, Hitachi Ltd., General Electric Co., Danfoss AS, KROHNE Messtechnik GmbH, Endress+Hauser Group, Fuji Electric Co., Ltd., Dassault Systemes SE and WIKA Alexander Wiegand SE & Co. KG.

Key Developments:

In October 2024, Honeywell announced two new solutions to optimize electric vehicle (EV) safety for drivers and manufacturing for gigafactories. The technologies, offered by Honeywell Process Solutions and Honeywell Sensing Solutions, support the company's alignment of its portfolio to three powerful megatrends, including the energy transition.

In August 2024, Electrification and automation major ABB said it has surpassed 10GW in delivering solutions for renewable energy plants in India. This is a result of over 300 renewable energy projects across India utilizing ABB's IoT-based PLC solution, a company statement said.

In April 2022, Rockwell Automation, Inc., the world's largest company dedicated to industrial automation and digital transformation, and ZEVx, Inc. (formerly Zero Electric Vehicles), announced today a three-year strategic agreement to work together to use advanced technology to accelerate the adoption of Electric Vehicles (EVs). ZEVx, specializes in the electrification of small and medium duty fleet vehicles, converting its customers' customized Internal Combustion Engines (ICE) to EVs in one day. By leveraging Rockwell Automation's solutions, and a network of legacy automotive service partners, ZEVx will be able to assemble specialized kits for their customers' fleets to accelerate the pace of conversions.

Types Covered:

Fixed/Hard Automation

Programmable Automation

Flexible/Soft Automation

Process Components Covered:

Sensors & Measurement Devices

Actuators & Motion Controls

Power Supply Units

Communication Interfaces

Safety Systems

Industrial Controllers

Control Systems Covered:

Human Machine Interface (HMI)

Distributed Control System (DCS)

SCADA Systems

Manufacturing Execution Systems (MES)

Industrial IoT Platforms

Functional Areas Covered:

Industrial Electrical Automation

Building Electrical Automation

Applications Covered:

Process Control

Energy Management

Gas Measurement & Regulation

Traffic & Transportation Systems

Industrial Security

Marine Applications

Mobile Machinery

Commercial Vehicle Systems

Production & Assembly

Power Generation Systems

End Users Covered:

Automotive

Electronics & Semiconductor

Food & Beverage

Pharmaceuticals

Metals & Mining

Oil & Gas

Chemical Processing

Utilities

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 2022, 2023, 2024, 2026, and 2030
- 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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Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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