

# Alternating Current (AC) Motor - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-04-28 | 182 pages | Mordor Intelligence

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### **Report description:**

The Alternating Current Motor Market size is estimated at USD 18.29 billion in 2025, and is expected to reach USD 21.73 billion by 2030, at a CAGR of 3.51% during the forecast period (2025-2030).

Key Highlights

- An AC motor is an electric motor that converts the alternating current into mechanical power using an electromagnetic induction phenomenon called an AC motor. An alternating current drives this motor. The stator and the rotor are the two most essential parts of an AC motor. The stator is the stationary part of the motor, and the rotor is the rotating part of the motor. The AC motor may be single-phase or three-phase.

- Three-phase AC motors are primarily applied in the industry for bulk power conversion from electrical to mechanical. Single-phase AC motors are mainly used for small power conversion. Single-phase AC motors are nearly small and provide various services in the home, office, business concerns, factories, etc. Almost all domestic appliances, such as refrigerators, fans, washing machines, hair dryers, and mixers, use single-phase AC motors.

- The growing adoption of electric vehicles is expected to support the market's growth during the forecast period. The automotive sector witnessed a significant increase in daily units produced over the years. According to the International Organization of Motor Vehicle Manufacturers (OICA), in the previous year, approximately 85 million motor vehicles were produced across the world, an increase of 6% compared to the year before it. China, Japan, and Germany were the largest producers of cars and commercial vehicles last year.

- AC motor integrates various other components into one physical unit. Standard configurations include the engine and drive, integrated encoders, controllers, cabling, and communication ports. This increases the overall cost of the system. The capital investment required for AC motors is greater than that required for other traditional motors, posing a challenge to the market's growth.

- A notable impact of the global outbreak of the COVID-19 pandemic has been observed on the market as various containment measures taken by governments across multiple countries, such as the implementation of lockdown, significantly impacted the growth of the industrial sector. As a result, a slowdown was witnessed in the studied market, especially during the initial phase, due to supply chain issues. However, with significant end-user industries resuming operations at total capacity, the demand for smart AC motors is anticipated to increase.

Alternating Current (AC) Motor Market Trends

The Oil and Gas Industry is Expected to Hold a Major Share in the Market

- The oil and gas industry plays a significant role in driving market growth. AC motors are extensively utilized within this industry due to their simplicity, reliability, and affordability. Electric AC motors play a crucial role in the oil and gas industry by delivering dependable and steady power to drill rig systems and equipment. These motors generate the necessary energy to facilitate the extraction, processing, storage, and transportation of valuable resources such as crude oil, natural gas, and petroleum. Induction motors and synchronous generators are employed to supply power for a wide range of applications in both onshore and offshore drilling operations.

- The rising demand for AC motors in the oil and gas sectors can be attributed to the growing emphasis on energy efficiency and reliability in challenging operational environments. Moreover, AC electric motors provide exceptional speed control and monitoring capabilities. The adoption of AC electric motors in onshore oil and gas industrial processes has witnessed a substantial increase owing to their ability to operate effectively in diverse environmental conditions and exhibit longer life cycles compared to alternative motor types.

- AC electric motors with a voltage rating below 1 kilovolt (kV) are frequently utilized in smaller equipment such as pumps, fans, blowers, and smaller compressors within oil and gas facilities. AC electric motors with a voltage rating ranging from 1 kV to 6.6 kV, as well as those exceeding 6.6 kV, are extensively employed in medium to high-power applications within the oil and gas industry. These motors are commonly found in larger compressors, generators, pumps, and other heavy-duty equipment. AC electric motors with a voltage rating exceeding 6.6 kV possess several notable characteristics, including increased power output, enhanced efficiency, and improved overload capacity.

- According to the International Energy Agency (IEA), the latest projections indicate that global demand for oil and gas will reach its peak in the coming years, even with the current policy settings in place. The IEA anticipates that global demand will rise by approximately eight million barrels per day (bpd) by the end of the decade, leading to an increased need for offshore activities. As a result of this growth in offshore operations and investments, there is an expected surge in demand for AC motors. These motors are utilized in various offshore applications, such as drilling rigs, production platforms, floating production storage and offloading (FPSO) vessels, subsea systems, and other offshore equipment.

- Furthermore, as per OPEC's report, the global consumption of crude oil (including biofuels) recently stood at 99.57 million barrels per day. It is estimated to rise to 101.89 million barrels per day in the coming years and eventually reach 109.8 million barrels per day. The demand

for diesel and gas oil is forecasted to amount to 30.1 million barrels per day, up from 27.6 million barrels. Such factors will encourage the demand for AC motors in the industry.

Asia-Pacific is Expected to Witness a Significant Growth in the Market

- China has been witnessing rapid industrialization and development across various sectors, such as manufacturing, automotive, and electronics. AC motors are widely used in industrial machinery and equipment for applications such as pumps, compressors,

conveyors, and fans, driving the demand for AC motors.

- China has been focusing on high-end manufacturing industries, power utilities, and oil and gas industries, boosting the usage of both low and medium-voltage drives in the country. For instance, the Chinese government's ambitious 'Made in China 2025' initiative, partially inspired by Germany for Industry 4.0, aims to boost the country's competitiveness in the manufacturing sector.

- India is expected to hold a significant global AC Motor Market share. The country's market is driven by rising demand for electric motors in manufacturing industries and rising awareness about energy efficiency. Also, the rising energy costs are expected to accelerate the adoption of synchronous electric motors in various industries. Due to the presence of many electric motor manufacturers in India, the country is expected to maintain a considerable market share during the forecast period.

- Japanese government's proactive approach to reducing carbon emissions has led to supportive policies that encourage industries to embrace energy-efficient solutions. This has further increased the adoption of AC motors in a wide range of industries, including transportation and industrial automation.

- Japan has been significantly transforming into an automated industrial economy in Asia-Pacific through its Industrial version 4.0 strategies, and the country has emerged as a manufacturing hub for factory automation products and supplies to other regional markets in Asia-Pacific.

- As of May 2023, according to the Ministry of Land, Infrastructure, and Transport, electric vehicles (EVs) represented approximately 1.8% of the South Korean automobile market. The government of South Korea has set a target to raise the proportion of electric and hydrogen vehicles in new vehicle sales to 33% in the coming years. Such developments in the EV sector will create significant opportunities for the vendor to invest in manufacturing facilities, thereby driving the market.

# Alternating Current (AC) Motor Market Overview

The alternating current (AC) motor market is highly fragmented, with major players like Rockwell Automation Inc., Siemens AG, Johnson Electric, Nidec Corporation, and ABB Ltd. Players in the market are adopting strategies such as partnerships and acquisitions to enhance their product offerings and gain sustainable competitive advantage.

- May 2024 - ABB unveiled an advanced package for electric buses featuring the AMXE250 motor and HES580 inverter. This integrated propulsion system is engineered to enhance efficiency, reliability, and availability, setting a new standard for sustainable transportation solutions.

- May 2024 - KPS Capital Partners LP, through a newly established affiliate, entered into a definitive agreement to acquire Innomotics GmbH from Siemens AG for an enterprise value of EUR 3.5 billion.

# Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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