
INDUSTRY OVERVIEW

The information and statistics set out in this section and other sections of this document are extracted from the report prepared by CIC, which was commissioned by us, as well as various official government publications and other publicly available publications. We engaged CIC to prepare an independent industry report, the CIC Report, in connection with the [REDACTED]. The information from official government sources has neither been independently verified by us or any other persons involved in the [REDACTED], nor any of our or their respective directors, senior management, representatives, advisors, or any other persons involved in the [REDACTED], and no representation is given as to its accuracy.

SOURCES AND RELIABILITY

We commissioned CIC to conduct an analysis of and report on the global industrial motor market. CIC is a market research and consulting firm established in Hong Kong, dedicated to providing professional consulting services for various industries. We have agreed to pay CIC a fee of RMB520,000 for the preparation of the CIC Report. The data cited in this section and the sections headed “Summary”, “Risk Factors”, “Business”, “Financial Information” and other sections of this document is intended to assist potential [REDACTED] in gaining a more comprehensive understanding of the industry in which we operate. Unless otherwise stated, all data and forecasts in this section are derived from the CIC Report. The data collected by CIC has been analyzed, evaluated, and verified through its internal analytical models and techniques. Primary research was conducted through interviews with key industry experts and leading market participants, while secondary research involved the analysis of publicly available data resources. Market forecasts in the CIC Report are based on the following key assumptions: (i) the overall global social, economic, and political environment is expected to remain stable during the forecast period; (ii) relevant key industry drivers (such as growth in downstream demand, technological advancements, and policy support) will continue to drive the development of the global industrial motor market during the forecast period; and (iii) there will be no extreme force majeure or sudden industry regulations that may have a drastic or fundamental impact on the market during the forecast period.

OVERVIEW OF THE GLOBAL INDUSTRIAL MOTOR INDUSTRY

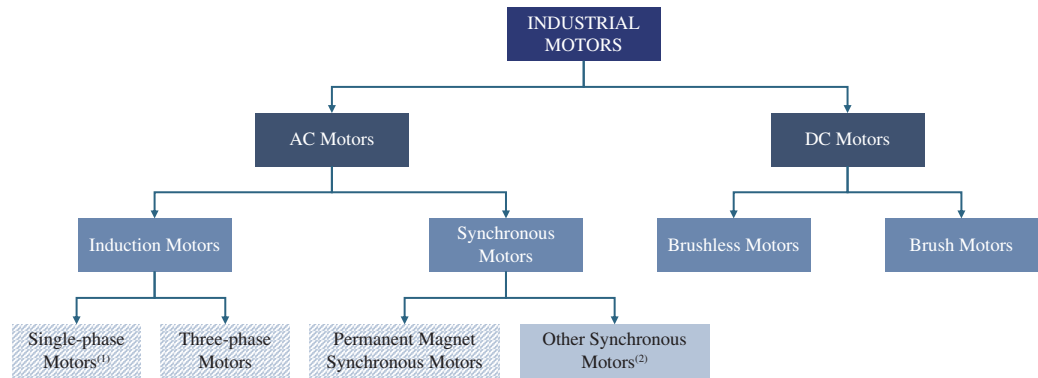
Definition and Classification of Industrial Motors

Industrial motors refer to various power devices in the field of industrial production that utilise the principle of electromagnetic induction to achieve the conversion between electrical energy and mechanical energy, or to perform the transmission of electrical energy, being the core executive components to drive the operation of industrial equipment. Based on the operating principles, industrial motors can be categorised into two major types, namely DC motors and AC motors, and the maturity of variable frequency control technology has made AC motors the core of modern industrial drives. Industrial AC motors can be further classified into induction motor and synchronous motors. Induction motor, by virtue of their reliability and durability, are widely applied in industrial automation fields such as fans and water pumps, building the foundation of industrial operations. Synchronous motors, represented by permanent magnet synchronous motors (PMSM), deeply align with the global manufacturing trend of “energy conservation and carbon reduction” through high power density, outstanding operational energy efficiency, and compact structural design, with an accelerating market penetration rate.

In the high-end manufacturing segment, servo motors achieve high precision and fast response through closed-loop systems on the basis of the permanent magnet synchronous technology, and have become the integral core components for industrial robots and high-end CNC machine tools and other intelligent equipment. With the in-depth development of intelligent manufacturing, advanced motor technologies are comprehensively leading the industrial system to upgrade towards high-efficiency, high-precision, and digitalisation.

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Classification of Industrial Motors



Notes:

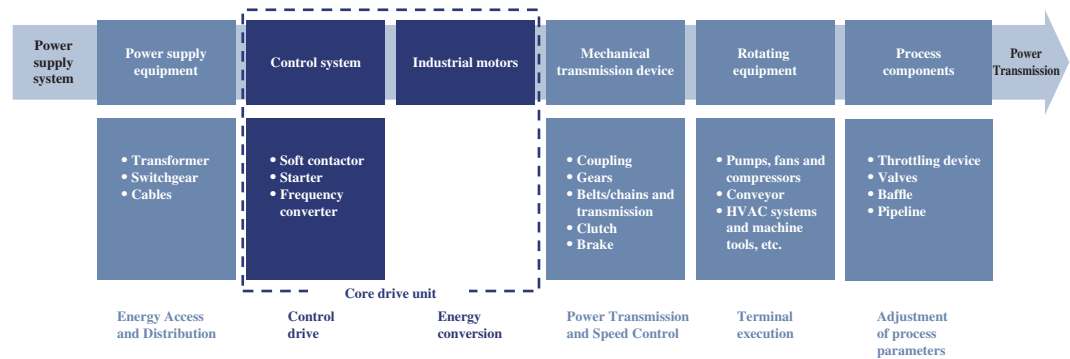
- (1) refers to the product the Company offers.
- (2) Other synchronous motors include synchronous reluctance motor, electrically excited synchronous motor, etc.

Composition and Operating Principles of Industrial Power Systems

Industrial power applications rely on an integrated engineering system from power access to operation. With the supply of power through transformers and cables, the current achieves the core energy conversion through a drive unit consisting of a control system and the motor body. Control systems perform precise power regulation, driving the motor body to convert electricity into mechanical energy. As the core of the power system, the performance of this drive unit plays a predominant role in the operational efficiency and precision of the machine.

Subsequently, mechanical energy is transmitted to rotating equipment such as pumps, fans, or compressors through transmission devices including couplings and gears to drive their operation, and achieves refined regulation with process components such as valves and baffles. The system is widely applied in downstream sectors including industrial automation (e.g., fluid control, logistics conveyance, and production line drives) and precision manufacturing, satisfying the process requirements for pressure, flow, and torque across various industrial scenarios through efficient energy conversion and precise control.

Composition and Operating Principles of Industrial Power Systems



Sources: IEC, CIC

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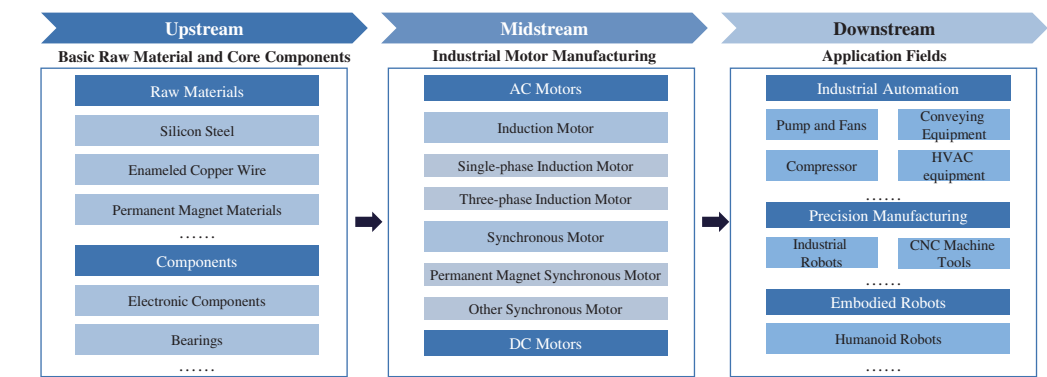
Industrial Motor Market Industry Chain

The upstream of the industrial motor industry chain primarily includes key raw materials such as silicon steel, enameled copper wire, aluminium, and permanent magnet materials, as well as components such as electronic and bearings, whose supply stability and technical standards directly determine the performance and reliability of the motors.

The midstream of the industry chain focuses on the technical research and development, product design, and manufacturing of industrial motors, and serves as the technical core of the industry chain. With the further advancement of Industry 4.0, the competitiveness of midstream industrial motor manufacturers will increasingly depend on their multidimensional engineering capabilities high-efficiency energy saving technologies (such as IE4 and IE5 energy efficiency levels) and the integration of drive and control system.

Industrial motors are currently widely applied in industrial automation (general equipment scenarios such as pumps, fans, compressors, conveying equipment, and HVAC) and precision manufacturing (CNC machine tools, industrial robots, etc.) scenarios. With the explosive growth in the scale of humanoid robots, their demand for lightweight industrial motors with high torque density will become a new driving force for the industry.

Analysis of the Industrial Motor Industry Chain, 2025



Sources: Omdia, CIC

Energy Efficiency Analysis of Industrial Motors

According to IEC 60034-30-1 standard, motor efficiency is classified into International Efficiency (IE) classes, including IE1 (Standard Efficiency), IE2 (High Efficiency), IE3 (Premium Efficiency), IE4 (Super Premium Efficiency), and IE5 (Ultra Premium Efficiency). Each grade corresponds to a specific level of energy efficiency performance, with higher grades indicating higher operating efficiency, lower energy loss and greater energy-saving potential. With increasingly stringent energy efficiency requirements and regulatory standards, IE1 and IE2 motors have gradually become less prevalent in industrial applications, and market demand has increasingly shifted toward higher-efficiency products, particularly IE3, IE4 and IE5 motors. China’s current motor energy efficiency standards are largely aligned with international standards. According to GB 18613–2020, China’s Grade 1 energy efficiency broadly corresponds to IE5, Grade 2 energy efficiency broadly corresponds to IE4, and Grade 3 energy efficiency (the minimum mandatory market access standard) is generally comparable to IE3.

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Comparison of Energy Efficiency Classes for Industrial Motors
(Taking a 45 kW, 4-pole, 50 Hz motor as an example)

Energy Efficiency Class	Loss (W)	Energy efficiency (%)
IE3 — Premium efficiency	2,771	94.2%
IE4 — Super premium efficiency	2,170	95.4%
IE5 — Ultra-premium efficiency	1,680–1,875	96.0%–96.4%

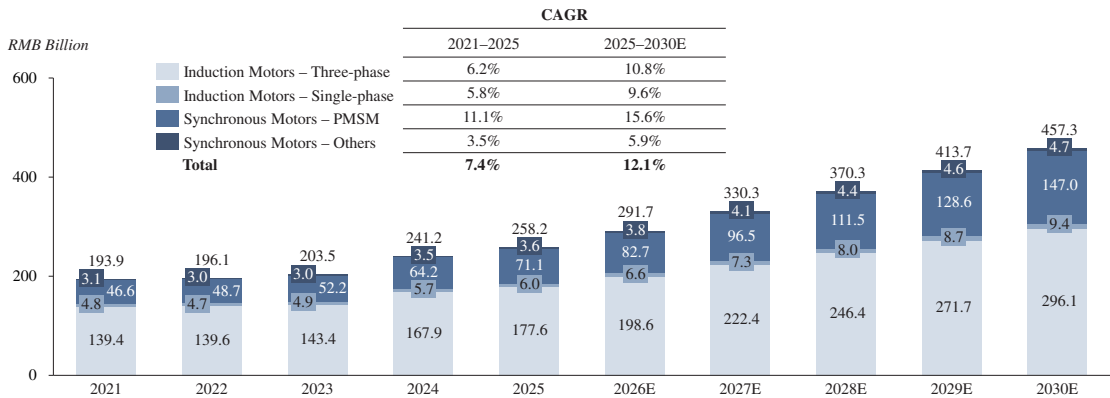
Sources: IEC, CIC

MARKET OVERVIEW OF CHINA’S INDUSTRIAL AC MOTOR INDUSTRY

Market Size of China’s Industrial AC Motor Industry

Driven by global trends and against the backdrop of the transformation and upgrading of the domestic manufacturing industry, the overall industrial AC motor market in China has maintained a positive growth momentum, increasing from approximately RMB193.9 billion in 2021 to expected approximately RMB258.2 billion by 2025, representing a CAGR of approximately 7.4% during the period, among which, induction motors occupy the majority of the market by virtue of its product stability and versatility, while synchronous motors, represented by PMSM, are experiencing rapid growth under the guidance of policies for low-carbon and efficiency improvement. In the future, with the expansion of downstream emerging industries, the industrial AC motor market in China is expected to grow at an accelerated CAGR of approximately 12.1% between 2025 and 2030, and is projected to reach a market size of approximately RMB457.3 billion by 2030.

Market Size of Industrial AC Motors in China, by Product Type,
in terms of Sales Revenue, 2021 to 2030E

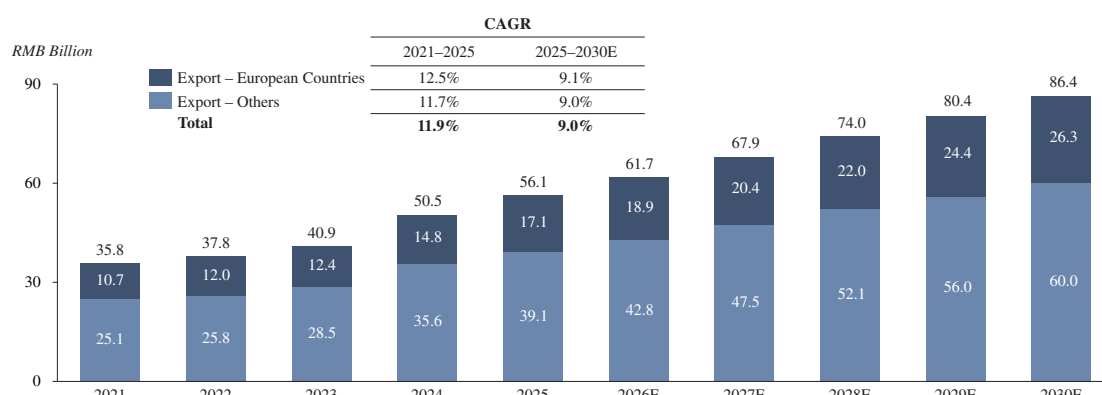


Sources: IDC, SEMI, National Bureau of Statistics, National Energy Administration, General Administration of Customs, CIC

Meanwhile, China is one of the largest countries exporting industrial AC motors. Driven by global demand, the overall export market is demonstrating steady growth and is projected to grow to approximately RMB86.4 billion by 2030 from approximately RMB56.1 billion in 2025. Specifically, European countries are one of the major markets, accounting for approximately 30.4% the export market, and is expected to increase to approximately RMB26.3 billion in 2030, representing a CAGR of approximately 9.1%.

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Market Size of Industrial AC Motors in China, by Place of Sales Region, in terms of Sales Revenue, 2021 to 2030E

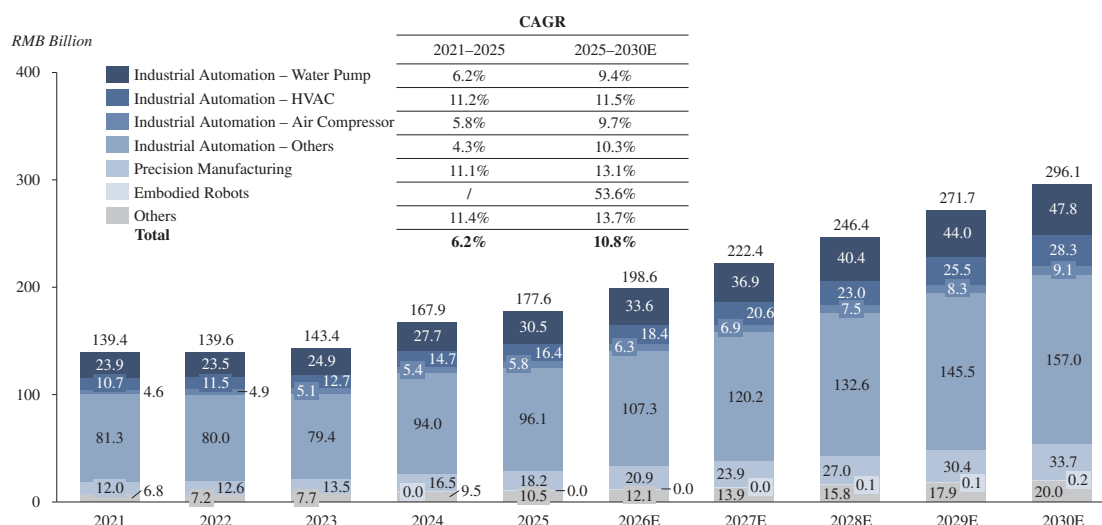


Sources: IDC, SEMI, National Bureau of Statistics, National Energy Administration, CIC

Market Size of China’s Industrial 3-PH IM Industry

The industrial 3-PH IM is the largest segment of China’s industrial motor market. In 2025, the market size of industrial 3-PH IM grew to approximately RMB177.6 billion, and is expected to obtain a steady growth rate of approximately 10.8% from 2025 to 2030. From the perspective of downstream application segments, industrial automation is a major component of the industrial 3-PH IM market in China. The market size for industrial 3-PH IM in the industrial automation sector is approximately RMB148.8 billion in 2025 and is expected to increase to approximately RMB242.3 billion by 2030. Within this segment, the motors used in pumps accounted for approximately RMB30.5 billion in 2025, with an expected increase to approximately RMB47.8 billion by 2030, representing a CAGR of approximately 9.4% from 2025 to 2030. Meanwhile, the market of the motors used in HVAC was RMB16.4 billion in 2025 and is expected to grow to approximately RMB28.3 billion by 2030, representing a CAGR of approximately 11.5% over the period.

Market Size of Industrial 3-PH IM in China, by Application, by Sales Revenue, 2021 to 2030E



Sources: IDC, SEMI, National Bureau of Statistics, National Energy Administration, CIC

Note: Others in industrial automation includes industrial 3-PH motors used in fields such as automated production lines. Others include applications such as agriculture machinery, flywheel energy storage, etc.

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Market Drivers and Development Trends of China’s Industrial 3-PH IM Industry

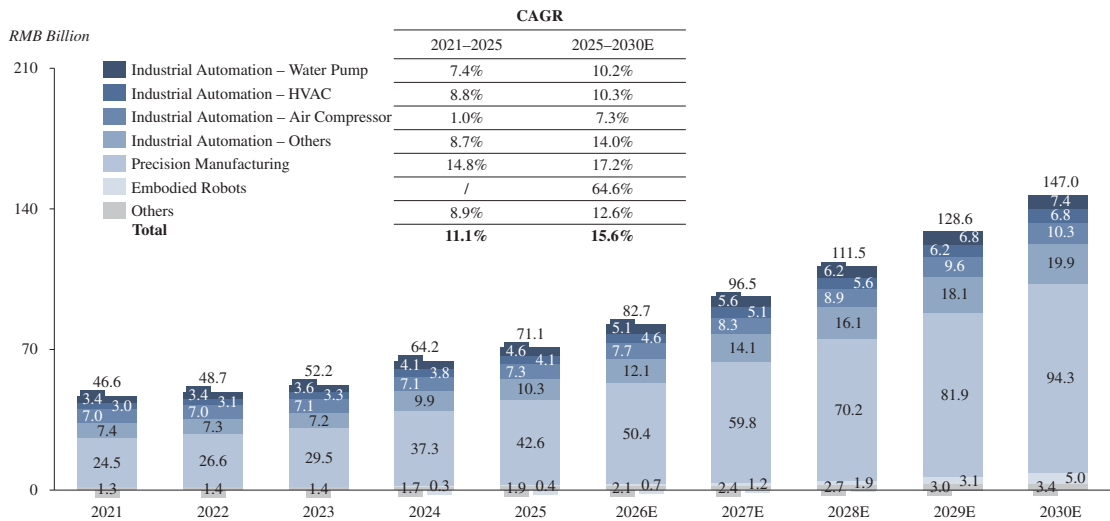
- **Policy-Driven Evolution Toward Ultra-High Efficiency and Green Development:** The deepened implementation of China’s “dual carbon” strategy has led to increasingly stringent energy efficiency policies and mandatory minimum energy performance standards. This makes the complete replacement of traditional, inefficient motors with high-efficiency three-phase asynchronous motors, such as IE4 and IE5 standards, an inevitable trend. In response to macro-level demands for energy conservation and emission reduction, the industry is significantly reducing copper loss, iron loss, and mechanical loss by optimizing electromagnetic structural designs, upgrading to high-quality cold-rolled silicon steel, and introducing advanced manufacturing processes. The continuous improvement of energy conversion efficiency has become the core theme of industrial development.
- **Intelligent Upgrading and the Transition Toward Mechatronics Integration:** As China’s equipment manufacturing industry advances, three-phase asynchronous motors are rapidly iterating toward intelligent and integrated systems. Through the deep integration of IoT sensing technology and energy efficiency management software, the digitalisation of motor systems enables predictive maintenance and comprehensive performance leaps. Furthermore, to achieve greater operational efficiency, product forms are accelerating the transition from standalone components to integrated mechatronic systems. By organically integrating asynchronous motors with Variable Frequency Drives and downstream execution loads, the system effectively achieves optimal parameter matching and significantly enhances the reliability and energy savings of the overall drive system.
- **Demand Shift Toward Specialised Applications and Customised Full-Lifecycle Solutions:** As industrial automation deepens across heavy and processing industries, the complex and harsh operating conditions in downstream sectors have driven a surge in demand for highly reliable, specialised three-phase asynchronous motors. Leveraging profound industry experience, motor suppliers are deeply involved in the early-stage R&D of end customers. The competitive dimension of the industry has upgraded from the simple sale of standardised, general-purpose hardware to the provision of customised, full-lifecycle solutions, covering preliminary consultation, application-specific development, and subsequent operation and maintenance management.
- **Supply Chain Maturity Driving Domestic Substitution and High-End Global Expansion:** Domestic manufacturers continue to break through technical bottlenecks in high-end, heavy-duty three-phase asynchronous motors, accelerating domestic substitution and gradually replacing foreign leading brands in core industrial applications. With a highly optimised cost structure and a mature supply chain, Chinese industrial motor enterprises are also accelerating the reshaping of the global industrial landscape. The export structure has continuously optimised, with a significant increase in the export growth rate and proportion of high-value-added products, such as ultra-high-efficiency and specialised asynchronous motors. The overseas expansion model has evolved from the traditional export of basic products to a new stage of multi-dimensional synergistic development, covering technology export, capacity layout, and standard formulation leadership.

Market Size of China’s Industrial PMSM Industry

The industrial PMSM market in China exhibited great growth by virtue of its high energy efficiency and energy density, growing from approximately RMB46.6 billion in 2021 to approximately RMB71.1 billion in 2025. Precision manufacturing, represented by CNC machine tools, is the largest segment of the industrial PMSM market, which accounted for approximately 59.8% of the market. The rapid growth of embodied robots is expected to further accelerate the growth of the industrial PMSM market, increasing to approximately RMB147.0 billion in 2030 with a CAGR of approximately 15.6% from 2025 to 2030, among which the CAGR of embodied robots from 2025 to 2030 is expected to reach approximately 64.6%.

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Market Size of Industrial PMSM in China, by Application, by Sales Revenue, 2021 to 2030E



Sources: IDC, SEMI, National Bureau of Statistics, National Energy Administration, CIC

Note: Others in industrial automation includes industrial PMSM used in fields such as automated production lines. Others include applications such as wind power equipment, flywheel energy storage, etc.

Market Drivers and Development Trends of China’s Industrial PMSM Industry

- **Surge in Demand for Intelligent Manufacturing and Precision Drives:** As China’s equipment manufacturing industry advances towards high-end, precision, and cutting-edge development, the penetration rate of PMSM, the core execution components of AC servo systems, continues to increase. Particularly in precision manufacturing fields such as industrial robotics, semiconductor equipment, and CNC machine tools, the demand for multi-axis precise motion control has surged. With characteristics of extremely high responsiveness, ultra-high control precision, and excellent low-speed torque, PMSM have become the core driving force supporting the upgrade of intelligent manufacturing. Furthermore, as artificial intelligence algorithms are progressively applied to whole-body motion strategies, the continuous upgrade of PMSM control systems towards high precision and strong self-adaptation is further accelerated.
- **The Explosive Growth of Humanoid Robots as a New Industrial Engine:** The rapid commercialisation and technological breakthroughs in the humanoid robot sector have created a massive new incremental market for high-performance PMSM, particularly frameless torque motors and precision servo motors. Humanoid robots require dozens of highly dynamic joint motors to achieve complex bipedal locomotion and dexterous manipulation. This emerging application demands extreme torque density, lightweight design, and dynamic responsiveness that far exceed traditional industrial requirements. The market size for motors used in humanoid robots in China is projected to reach approximately RMB2.4 billion by 2030, with a CAGR of approximately 89.1% from 2025 to 2030. This explosive growth in robot deployment is directly catalyzing a structural surge in demand for cutting-edge PMSM solutions.

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- **Modularisation and Deep Mechatronics Integration:** To achieve greater operational efficiency, structural compactness, and cost control, industrial PMSM are accelerating the transition from standalone components to integrated mechatronic systems. In advanced applications such as robotic joints, motors, precision reducers, servo drivers, and encoders are gradually evolving into highly integrated joint modules. Through this high degree of physical and logical integration, the power density and response speed of the system can be significantly enhanced, while the difficulty of overall assembly is reduced. This integration trend represents a key path toward achieving large-scale mass production of both advanced industrial automation equipment and humanoid robots.
- **High Degree of Customisation and Scenario-Specific Adaptability:** The complex operating conditions faced by downstream applications — ranging from extreme-environment industrial operation and maintenance to domestic services — have placed unprecedented requirements on the customisation of PMSM. Different scenarios exhibit significant variations in requirements for power performance, form factors, protection ratings, and thermal management. The business model of the industry has fundamentally shifted from the simple sale of standardised hardware to front-end collaborative customised development based on end-user scenario requirements. By engaging deeply in the early-stage product design and R&D of end customers, motor suppliers achieve precise matching between PMSM products and application scenarios through the holistic optimisation of structure, electromagnetics, and control algorithms.
- **Maturity of the Industry Chain Accelerates Domestic Substitution and Global Expansion:** Benefiting from policy dividends supporting industrial automation, domestic manufacturers continue to break through technical bottlenecks in high-end PMSM and servo control technologies. The core supply chain, particularly in rare-earth permanent magnets and precision manufacturing, is increasingly mature, allowing domestic brands to rapidly capture market share from foreign competitors in the mid-to-high-end servo sector. With significantly optimised hardware cost structures, Chinese industrial PMSM enterprises are accelerating their global layout. The overseas expansion model has evolved from traditional product exports to a new stage of multi-dimensional synergistic development, exporting high-value-added precision drive solutions to reshape the global industrial landscape.

COMPETITIVE ANALYSIS OF CHINA’S INDUSTRIAL AC MOTOR INDUSTRY

Competitive Landscape of China’s Industrial AC Motor Industry

The competitive landscape of China’s industrial AC motor industry is characterised by the coexistence of international and domestic manufacturers, with competition driven by factors such as technological capabilities, product performance and localized service capabilities. International manufacturers generally maintain advantages in technological expertise, product reliability and premium industrial applications. Domestic manufacturers have gradually enhanced their competitiveness through ongoing technological upgrades, cost advantages and localised service capabilities. As industrial customers increasingly demand higher energy efficiency, reliability and customised solutions, competition within the industry has gradually evolved from basic electromagnetic structural design competition towards comprehensive capability competition.

Ranking and Market Share of Top Five Industrial AC Motor Manufacturers

The industrial AC motor market in China is highly fragmented, with a large number of domestic and international manufacturers competing across different product categories and application scenarios. International manufacturers generally possess advantages in technological expertise, product reliability and premium industrial applications, while domestic manufacturers have progressively strengthened their

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competitive positions through continuous technological advancement, cost competitiveness and localised service capabilities. Despite the presence of several leading manufacturers, the market remained relatively fragmented, with the top five industrial AC motor manufacturers accounting for an aggregate market share of approximately 12.5% in terms of sales value in 2025.

In 2025, the Company’s market share was approximately 0.3% in terms of sales value in the industrial AC motors market in China.

Entry Barriers and Key Success Factors of the Industrial AC Motor Industry

- **Continuous technological breakthroughs and R&D innovation capabilities:** With the rising global standards for industrial energy efficiency, AC motors are transitioning from standard energy efficiency to ultra-high energy efficiency and precision drive control. Industry competition is no longer limited to basic electromagnetic structural design, but further involves the interdisciplinary integration of materials science, power electronics, and control algorithms. The research and development capabilities to develop high-efficiency products, along with the ability to consistently align technical development with international advanced standards, are objective prerequisites for an enterprise to enter high-end market segments and secure leading technological advantages.
- **Stringent industry certifications and supplier access requirements:** As the power source of downstream equipment, the safety and stability of industrial AC motors directly affect the continuity of production lines, and therefore are subject to extremely stringent certification and entry requirements. In addition to China’s national energy efficiency certification (GB), entry into specific sectors also requires obtaining various global authoritative certifications, such as the EU’s CE, the US’s UL, and explosion-proof certifications. As leading downstream enterprises typically implement stringent and long-term supplier qualification review procedures, such trust system established based on long-term stable operational data constitutes a stringent barrier to entry for new entrants. Once a cooperative relationship is established, it is typically characterised by a high degree of exclusivity and long-term commitment.
- **Customised service capabilities:** The diversification of industrial application scenarios has led to a highly fragmented demand for motors. Leading manufacturers typically possess strong collaborative service capabilities, enabling them to participate deeply in the early research and development and design phases of downstream customers, and provide comprehensive solutions ranging from technical approaches matching to customised prototyping. Customised services have not only enhanced customer stickiness but have also established a robust customer ecosystem barrier through long-term cooperation.
- **Supply chain stability:** The production of motors is highly dependent on core raw and auxiliary materials such as rare earth permanent magnet materials, high-end silicon steel sheets, high-grade electromagnetic wires, and insulation and vacuum sealing materials. Against the backdrop of fluctuations in the global trade environment, the possession of strategic supply chain resources and the guarantee of independent control over major raw materials and components by leading manufacturers will directly impact delivery cycles and cost control.
- **Flexible manufacturing and large-scale delivery capabilities:** In the face of customised market demand characterised by multiple varieties and small batches, the possession of efficient and flexible manufacturing capabilities is of paramount importance. Manufacturers are required to achieve rapid changeover and efficient production of products with different

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specifications on the same production line through the deep integration of precision processing equipment and digital management systems (such as MES and ERP). Delivering high-quality products with short lead times while ensuring process consistency is the foundation for an enterprise to maintain a sustained competitive edge in a complex and ever-changing industry.

ANALYSIS OF PRICES AND MAJOR RAW MATERIAL COSTS OF INDUSTRIAL AC MOTORS

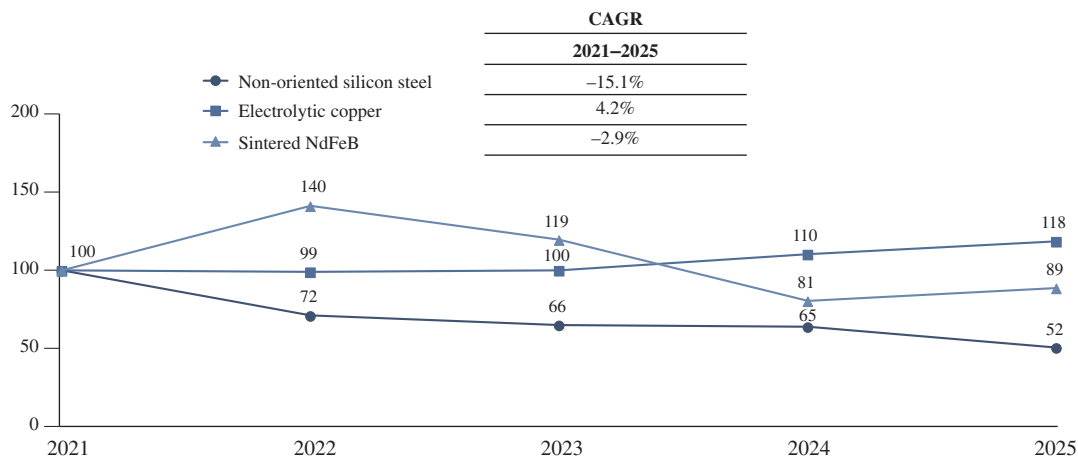
Price Trends of Industrial AC Motors

The price of industrial AC motors is influenced by various factors, including raw material costs, product specifications and downstream application requirements. Given the wide range of motor types, power ratings and application scenarios, significant price variations exist among different industrial AC motor products. Overall, the overall price levels of industrial AC motors remained relatively stable over the past five years, although a slight decline was observed in 2024, primarily driven by a moderation in downstream demand and intensified market competition.

Price Trends of Major Raw Materials of Industrial AC Motors

The major raw materials for industrial AC motors primarily include non-oriented silicon steel, electrolytic copper, and the permanent magnet material sintered neodymium iron boron, the price fluctuations of which have a significant impact on the cost structure of the industry. Since 2021, the price trends of various raw materials have exhibited significant divergence. The price index of non-oriented silicon steel has continued to decline as a result of the release of domestic steel production capacity and the slowdown in traditional industrial demand. The electrolytic copper, driven by the global electrification transition and demand for computing infrastructure, experienced an overall upward trend amid volatility. Following a previous correction in rare earth prices, the sintered NdFeB, bolstered by demand from robotics and high-performance motors, has stabilised and rebounded in 2025.

Price Trends of Major Raw Materials for Industrial AC Motors, by Price Index, 2021 to 2025



Sources: National Bureau of Statistics, China Iron and Steel Association, CIC

Note: The price index is based on 2021, which is set at 100.