

Permanent Magnet Synchronous Motor (Pmsm) Market Outlook 2025-2034: Market Share, and Growth Analysis By Type (Surface, Interior), By Capacity (375-450 kW, 450-600 kW, Above 600 kW), By Voltage Range, By Application

<https://marketpublishers.com/r/P4C8B5ECDB84EN.html>

Date: October 2025

Pages: 160

Price: US\$ 3,950.00 (Single User License)

ID: P4C8B5ECDB84EN

Abstracts

The Permanent Magnet Synchronous Motor (Pmsm) Market is valued at USD 24.3 billion in 2025 and is projected to grow at a CAGR of 9.1% to reach USD 53.3 billion by 2034.

Permanent Magnet Synchronous Motor (PMSM) Market Overview

The Permanent Magnet Synchronous Motor (PMSM) market has seen significant growth due to its high efficiency, compact size, and ability to provide precise control of speed and torque. PMSMs are widely used in applications that require high performance and energy efficiency, such as electric vehicles (EVs), industrial automation, robotics, and renewable energy systems. These motors use permanent magnets to create the magnetic field, which eliminates the need for external excitation and results in a more energy-efficient design. The increasing demand for electric vehicles and the transition towards more sustainable energy solutions are driving the adoption of PMSMs. Additionally, the global push towards automation and the increasing focus on reducing energy consumption have further fueled the demand for these motors in industrial sectors. Their high power density and ability to operate efficiently over a wide range of speeds make them ideal for applications where performance and efficiency are crucial. With advancements in magnet materials and motor designs, PMSMs are becoming increasingly cost-effective and reliable, further expanding their application in various sectors. The PMSM market has seen continued innovation, particularly in the automotive and industrial sectors. The growing demand for

electric vehicles has been one of the primary drivers for PMSM adoption, as these motors are essential in providing the necessary power and range in EVs while maintaining high efficiency. Additionally, improvements in the design and manufacturing processes of PMSMs have made them more affordable and accessible to a wider range of industries. The integration of PMSMs in robotics and automation applications is also increasing, as they offer better precision and efficiency compared to other motor types. Technological advancements in magnet materials, such as rare-earth magnets and high-performance ferrite, are enhancing the efficiency and power output of PMSMs, further boosting their market adoption. Furthermore, as industries focus on reducing carbon footprints and improving energy efficiency, PMSMs are gaining traction due to their ability to reduce energy consumption while maintaining high-performance standards. The focus is also on increasing the manufacturing capacity of PMSMs, as their application continues to expand globally in various high-tech industries. The PMSM market is expected to continue its growth trajectory, driven by further advancements in electric vehicle technology, industrial automation, and renewable energy applications. As the global shift towards renewable energy sources continues, PMSMs are expected to play a key role in wind turbines and other clean energy systems due to their high efficiency and reliability. In the automotive sector, the increasing adoption of electric vehicles, coupled with advancements in battery technology, will continue to drive demand for PMSMs. The automotive industry is expected to focus on improving the integration of PMSMs with energy management systems, further enhancing the performance and range of electric vehicles. Additionally, the integration of artificial intelligence (AI) and machine learning (ML) in PMSM controllers will allow for more precise motor control and greater energy efficiency. As industries look to improve performance while reducing energy consumption, PMSMs will continue to be a crucial component in the development of more efficient and sustainable technologies. With increased research and development efforts, the market for PMSMs is set to grow, creating new opportunities for companies in automotive, industrial, and renewable energy sectors.

Key Insights Permanent Magnet Synchronous Motor (Pmsm) Market

Growing Demand in Electric Vehicles: The rise of electric vehicles is driving the adoption of PMSMs, as these motors offer high efficiency, compact design, and long-range capabilities crucial for EVs.

Advancements in Magnet Materials: Improvements in magnet materials, such as rare-earth magnets and ferrite, are enhancing the power output and efficiency of PMSMs, making them more effective in various applications.

Increased Adoption in Industrial Automation: The precision and efficiency of PMSMs are leading to their growing use in industrial automation and robotics, offering more energy-efficient and accurate performance compared to traditional motors.

Integration with AI and Machine Learning: The use of artificial intelligence and machine learning in PMSM control systems is enabling better energy management, predictive maintenance, and optimized motor performance.

Sustainability and Energy Efficiency Focus: As industries push for more sustainable practices, PMSMs are gaining popularity due to their energy-efficient design and ability to reduce overall energy consumption in various applications.

Rising Demand for Electric Vehicles (EVs): The increasing adoption of EVs is a major driver for the PMSM market, as these motors provide high efficiency and reliability for electric drivetrains.

Technological Advancements in Motor Design: Ongoing innovations in motor design, magnet materials, and manufacturing processes are enhancing the performance and affordability of PMSMs, expanding their use across industries.

Focus on Industrial Automation and Robotics: The growing need for high-precision motors in industrial automation and robotics is contributing to the increased adoption of PMSMs in manufacturing environments.

Shift Toward Energy-Efficient and Sustainable Solutions: As industries focus on reducing energy consumption and carbon footprints, PMSMs, known for their energy efficiency, are becoming an essential part of green technologies.

High Initial Costs and Material Dependency: The high cost of rare-earth materials and the initial investment required for PMSMs can be a barrier to adoption, especially in price-sensitive applications, limiting their widespread use in some industries.

Permanent Magnet Synchronous Motor (Pmsm) Market Segmentation

By Type

Surface

Interior

By Capacity

375-450 kW

450-600 kW

Above 600 kW

By Voltage Range

Above 60V

41V60V

31V40V

21V30V

10V20V

9V and below

By Application

Automation

Consumer Electronics

Residential and Commercial

Automotive and Transportation

Lab Equipment

Medical

Military and Aerospace

Key Companies Analysed

Agfa-Gevaert NV

Analogic Corporation

CAN-med Healthcare

Canon Inc.

Eastman Kodak Company

EDM Imaging Solutions

EOS imaging

Esaote SpA

FUJIFILM Holdings Corporation

Hitachi Medical Corporation

KARL STORZ Group

Koninklijke Philips N.V

LMT Medical Systems GmbH

Maranda Lauzon Inc.

Medtronic plc

Mindray Medical International Limited

Samsung Medison Co. Ltd

Shenzhen Anke High-tech Co. Ltd

Siemens Healthcare GmbH

SternMed GmbH

Toshiba Medical Systems Corporation

Trivitron Healthcare Pvt. Ltd.

Xi'an Mol Technology development Co.

BK Medical UK Ltd.

Boston Children's Hospital

Children's Healthcare of Atlanta Inc.

Children's National Hospital

Cincinnati Children's Hospital Medical Center

Clarius Mobile Health Corp.

CurveBeam AI Ltd.

General Electric Company

Hologic Inc.

InnoVision Ltd.

Mednax Inc.

Permanent Magnet Synchronous Motor (Pmsm) Market Analytics

The report employs rigorous tools, including Porter's Five Forces, value chain mapping, and scenario-based modeling, to assess supply–demand dynamics. Cross-sector influences from parent, derived, and substitute markets are evaluated to identify risks and opportunities. Trade and pricing analytics provide an up-to-date view of international flows, including leading exporters, importers, and regional price trends.

Macroeconomic indicators, policy frameworks such as carbon pricing and energy security strategies, and evolving consumer behavior are considered in forecasting scenarios. Recent deal flows, partnerships, and technology innovations are incorporated to assess their impact on future market performance.

Permanent Magnet Synchronous Motor (Pmsm) Market Competitive Intelligence

The competitive landscape is mapped through OG Analysis' proprietary frameworks, profiling leading companies with details on business models, product portfolios, financial performance, and strategic initiatives. Key developments such as mergers & acquisitions, technology collaborations, investment inflows, and regional expansions are analyzed for their competitive impact. The report also identifies emerging players and innovative startups contributing to market disruption.

Regional insights highlight the most promising investment destinations, regulatory landscapes, and evolving partnerships across energy and industrial corridors.

Countries Covered

North America — Permanent Magnet Synchronous Motor (Pmsm) market data and outlook to 2034

United States

Canada

Mexico

Europe — Permanent Magnet Synchronous Motor (Pmsm) market data and outlook to 2034

Germany

United Kingdom

France

Italy

Spain

BeNeLux

Russia

Sweden

Asia-Pacific — Permanent Magnet Synchronous Motor (Pmsm) market data and outlook to 2034

China

Japan

India

South Korea

Australia

Indonesia

Malaysia

Vietnam

Middle East and Africa — Permanent Magnet Synchronous Motor (Pmsm) market data and outlook to 2034

Saudi Arabia

South Africa

Iran

UAE

Egypt

South and Central America — Permanent Magnet Synchronous Motor (Pmsm)
market data and outlook to 2034

Brazil

Argentina

Chile

Peru

** We can include data and analysis of additional countries on demand.*

Research Methodology

This study combines primary inputs from industry experts across the Permanent Magnet Synchronous Motor (Pmsm) value chain with secondary data from associations, government publications, trade databases, and company disclosures. Proprietary modeling techniques, including data triangulation, statistical correlation, and scenario planning, are applied to deliver reliable market sizing and forecasting.

Key Questions Addressed

What is the current and forecast market size of the Permanent Magnet Synchronous Motor (Pmsm) industry at global, regional, and country levels?

Which types, applications, and technologies present the highest growth potential?

How are supply chains adapting to geopolitical and economic shocks?

What role do policy frameworks, trade flows, and sustainability targets play in shaping demand?

Who are the leading players, and how are their strategies evolving in the face of global uncertainty?

Which regional “hotspots” and customer segments will outpace the market, and what go-to-market and partnership models best support entry and expansion?

Where are the most investable opportunities—across technology roadmaps, sustainability-linked innovation, and M&A—and what is the best segment to invest over the next 3–5 years?

Your Key Takeaways from the Permanent Magnet Synchronous Motor (Pmsm) Market Report

Global Permanent Magnet Synchronous Motor (Pmsm) market size and growth projections (CAGR), 2024-2034

Impact of Russia-Ukraine, Israel-Palestine, and Hamas conflicts on Permanent Magnet Synchronous Motor (Pmsm) trade, costs, and supply chains

Permanent Magnet Synchronous Motor (Pmsm) market size, share, and outlook across 5 regions and 27 countries, 2023-2034

Permanent Magnet Synchronous Motor (Pmsm) market size, CAGR, and market share of key products, applications, and end-user verticals, 2023-2034

Short- and long-term Permanent Magnet Synchronous Motor (Pmsm) market trends, drivers, restraints, and opportunities

Porter’s Five Forces analysis, technological developments, and Permanent Magnet Synchronous Motor (Pmsm) supply chain analysis

Permanent Magnet Synchronous Motor (Pmsm) trade analysis, Permanent Magnet Synchronous Motor (Pmsm) market price analysis, and Permanent

Magnet Synchronous Motor (Pmsm) supply/demand dynamics

Profiles of 5 leading companies—overview, key strategies, financials, and products

Latest Permanent Magnet Synchronous Motor (Pmsm) market news and developments

Additional Support

With the purchase of this report, you will receive

An updated PDF report and an MS Excel data workbook containing all market tables and figures for easy analysis.

7-day post-sale analyst support for clarifications and in-scope supplementary data, ensuring the deliverable aligns precisely with your requirements.

Complimentary report update to incorporate the latest available data and the impact of recent market developments.

** The updated report will be delivered within 3 working days*

Contents

1. TABLE OF CONTENTS

- 1.1 List of Tables
- 1.2 List of Figures

2. GLOBAL PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET SUMMARY, 2025

- 2.1 Permanent Magnet Synchronous Motor (Pmsm) Industry Overview
 - 2.1.1 Global Permanent Magnet Synchronous Motor (Pmsm) Market Revenues (In US\$ billion)
- 2.2 Permanent Magnet Synchronous Motor (Pmsm) Market Scope
- 2.3 Research Methodology

3. PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET INSIGHTS, 2024-2034

- 3.1 Permanent Magnet Synchronous Motor (Pmsm) Market Drivers
- 3.2 Permanent Magnet Synchronous Motor (Pmsm) Market Restraints
- 3.3 Permanent Magnet Synchronous Motor (Pmsm) Market Opportunities
- 3.4 Permanent Magnet Synchronous Motor (Pmsm) Market Challenges
- 3.5 Tariff Impact on Global Permanent Magnet Synchronous Motor (Pmsm) Supply Chain Patterns

4. PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET ANALYTICS

- 4.1 Permanent Magnet Synchronous Motor (Pmsm) Market Size and Share, Key Products, 2025 Vs 2034
- 4.2 Permanent Magnet Synchronous Motor (Pmsm) Market Size and Share, Dominant Applications, 2025 Vs 2034
- 4.3 Permanent Magnet Synchronous Motor (Pmsm) Market Size and Share, Leading End Uses, 2025 Vs 2034
- 4.4 Permanent Magnet Synchronous Motor (Pmsm) Market Size and Share, High Growth Countries, 2025 Vs 2034
- 4.5 Five Forces Analysis for Global Permanent Magnet Synchronous Motor (Pmsm) Market
 - 4.5.1 Permanent Magnet Synchronous Motor (Pmsm) Industry Attractiveness Index,

2025

- 4.5.2 Permanent Magnet Synchronous Motor (Pmsm) Supplier Intelligence
- 4.5.3 Permanent Magnet Synchronous Motor (Pmsm) Buyer Intelligence
- 4.5.4 Permanent Magnet Synchronous Motor (Pmsm) Competition Intelligence
- 4.5.5 Permanent Magnet Synchronous Motor (Pmsm) Product Alternatives and Substitutes Intelligence
- 4.5.6 Permanent Magnet Synchronous Motor (Pmsm) Market Entry Intelligence

5. GLOBAL PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET STATISTICS – INDUSTRY REVENUE, MARKET SHARE, GROWTH TRENDS AND FORECAST BY SEGMENTS, TO 2034

- 5.1 World Permanent Magnet Synchronous Motor (Pmsm) Market Size, Potential and Growth Outlook, 2024- 2034 (\$ billion)
- 5.1 Global Permanent Magnet Synchronous Motor (Pmsm) Sales Outlook and CAGR Growth By Type, 2024- 2034 (\$ billion)
- 5.2 Global Permanent Magnet Synchronous Motor (Pmsm) Sales Outlook and CAGR Growth By Capacity, 2024- 2034 (\$ billion)
- 5.3 Global Permanent Magnet Synchronous Motor (Pmsm) Sales Outlook and CAGR Growth By Voltage Range, 2024- 2034 (\$ billion)
- 5.4 Global Permanent Magnet Synchronous Motor (Pmsm) Sales Outlook and CAGR Growth By Application, 2024- 2034 (\$ billion)
- 5.5 Global Permanent Magnet Synchronous Motor (Pmsm) Market Sales Outlook and Growth by Region, 2024- 2034 (\$ billion)

6. ASIA PACIFIC PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) INDUSTRY STATISTICS – MARKET SIZE, SHARE, COMPETITION AND OUTLOOK

- 6.1 Asia Pacific Permanent Magnet Synchronous Motor (Pmsm) Market Insights, 2025
- 6.2 Asia Pacific Permanent Magnet Synchronous Motor (Pmsm) Market Revenue Forecast By Type, 2024- 2034 (USD billion)
- 6.3 Asia Pacific Permanent Magnet Synchronous Motor (Pmsm) Market Revenue Forecast By Capacity, 2024- 2034 (USD billion)
- 6.4 Asia Pacific Permanent Magnet Synchronous Motor (Pmsm) Market Revenue Forecast By Voltage Range, 2024- 2034 (USD billion)
- 6.5 Asia Pacific Permanent Magnet Synchronous Motor (Pmsm) Market Revenue Forecast By Application, 2024- 2034 (USD billion)
- 6.6 Asia Pacific Permanent Magnet Synchronous Motor (Pmsm) Market Revenue Forecast by Country, 2024- 2034 (USD billion)

6.6.1 China Permanent Magnet Synchronous Motor (Pmsm) Market Size, Opportunities, Growth 2024- 2034

6.6.2 India Permanent Magnet Synchronous Motor (Pmsm) Market Size, Opportunities, Growth 2024- 2034

6.6.3 Japan Permanent Magnet Synchronous Motor (Pmsm) Market Size, Opportunities, Growth 2024- 2034

6.6.4 Australia Permanent Magnet Synchronous Motor (Pmsm) Market Size, Opportunities, Growth 2024- 2034

7. EUROPE PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET DATA, PENETRATION, AND BUSINESS PROSPECTS TO 2034

7.1 Europe Permanent Magnet Synchronous Motor (Pmsm) Market Key Findings, 2025

7.2 Europe Permanent Magnet Synchronous Motor (Pmsm) Market Size and Percentage Breakdown By Type, 2024- 2034 (USD billion)

7.3 Europe Permanent Magnet Synchronous Motor (Pmsm) Market Size and Percentage Breakdown By Capacity, 2024- 2034 (USD billion)

7.4 Europe Permanent Magnet Synchronous Motor (Pmsm) Market Size and Percentage Breakdown By Voltage Range, 2024- 2034 (USD billion)

7.5 Europe Permanent Magnet Synchronous Motor (Pmsm) Market Size and Percentage Breakdown By Application, 2024- 2034 (USD billion)

7.6 Europe Permanent Magnet Synchronous Motor (Pmsm) Market Size and Percentage Breakdown by Country, 2024- 2034 (USD billion)

7.6.1 Germany Permanent Magnet Synchronous Motor (Pmsm) Market Size, Trends, Growth Outlook to 2034

7.6.2 United Kingdom Permanent Magnet Synchronous Motor (Pmsm) Market Size, Trends, Growth Outlook to 2034

7.6.2 France Permanent Magnet Synchronous Motor (Pmsm) Market Size, Trends, Growth Outlook to 2034

7.6.2 Italy Permanent Magnet Synchronous Motor (Pmsm) Market Size, Trends, Growth Outlook to 2034

7.6.2 Spain Permanent Magnet Synchronous Motor (Pmsm) Market Size, Trends, Growth Outlook to 2034

8. NORTH AMERICA PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET SIZE, GROWTH TRENDS, AND FUTURE PROSPECTS TO 2034

8.1 North America Snapshot, 2025

8.2 North America Permanent Magnet Synchronous Motor (Pmsm) Market Analysis and

Outlook By Type, 2024- 2034 (\$ billion)

8.3 North America Permanent Magnet Synchronous Motor (Pmsm) Market Analysis and Outlook By Capacity, 2024- 2034 (\$ billion)

8.4 North America Permanent Magnet Synchronous Motor (Pmsm) Market Analysis and Outlook By Voltage Range, 2024- 2034 (\$ billion)

8.5 North America Permanent Magnet Synchronous Motor (Pmsm) Market Analysis and Outlook By Application, 2024- 2034 (\$ billion)

8.6 North America Permanent Magnet Synchronous Motor (Pmsm) Market Analysis and Outlook by Country, 2024- 2034 (\$ billion)

8.6.1 United States Permanent Magnet Synchronous Motor (Pmsm) Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.6.1 Canada Permanent Magnet Synchronous Motor (Pmsm) Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.6.1 Mexico Permanent Magnet Synchronous Motor (Pmsm) Market Size, Share, Growth Trends and Forecast, 2024- 2034

9. SOUTH AND CENTRAL AMERICA PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET DRIVERS, CHALLENGES, AND FUTURE PROSPECTS

9.1 Latin America Permanent Magnet Synchronous Motor (Pmsm) Market Data, 2025

9.2 Latin America Permanent Magnet Synchronous Motor (Pmsm) Market Future By Type, 2024- 2034 (\$ billion)

9.3 Latin America Permanent Magnet Synchronous Motor (Pmsm) Market Future By Capacity, 2024- 2034 (\$ billion)

9.4 Latin America Permanent Magnet Synchronous Motor (Pmsm) Market Future By Voltage Range, 2024- 2034 (\$ billion)

9.5 Latin America Permanent Magnet Synchronous Motor (Pmsm) Market Future By Application, 2024- 2034 (\$ billion)

9.6 Latin America Permanent Magnet Synchronous Motor (Pmsm) Market Future by Country, 2024- 2034 (\$ billion)

9.6.1 Brazil Permanent Magnet Synchronous Motor (Pmsm) Market Size, Share and Opportunities to 2034

9.6.2 Argentina Permanent Magnet Synchronous Motor (Pmsm) Market Size, Share and Opportunities to 2034

10. MIDDLE EAST AFRICA PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET OUTLOOK AND GROWTH PROSPECTS

10.1 Middle East Africa Overview, 2025

10.2 Middle East Africa Permanent Magnet Synchronous Motor (Pmsm) Market Statistics By Type, 2024- 2034 (USD billion)

10.3 Middle East Africa Permanent Magnet Synchronous Motor (Pmsm) Market Statistics By Capacity, 2024- 2034 (USD billion)

10.4 Middle East Africa Permanent Magnet Synchronous Motor (Pmsm) Market Statistics By Voltage Range, 2024- 2034 (USD billion)

10.5 Middle East Africa Permanent Magnet Synchronous Motor (Pmsm) Market Statistics By Voltage Range, 2024- 2034 (USD billion)

10.6 Middle East Africa Permanent Magnet Synchronous Motor (Pmsm) Market Statistics by Country, 2024- 2034 (USD billion)

10.6.1 Middle East Permanent Magnet Synchronous Motor (Pmsm) Market Value, Trends, Growth Forecasts to 2034

10.6.2 Africa Permanent Magnet Synchronous Motor (Pmsm) Market Value, Trends, Growth Forecasts to 2034

11. PERMANENT MAGNET SYNCHRONOUS MOTOR (PMSM) MARKET STRUCTURE AND COMPETITIVE LANDSCAPE

11.1 Key Companies in Permanent Magnet Synchronous Motor (Pmsm) Industry

11.2 Permanent Magnet Synchronous Motor (Pmsm) Business Overview

11.3 Permanent Magnet Synchronous Motor (Pmsm) Product Portfolio Analysis

11.4 Financial Analysis

11.5 SWOT Analysis

12 APPENDIX

12.1 Global Permanent Magnet Synchronous Motor (Pmsm) Market Volume (Tons)

12.1 Global Permanent Magnet Synchronous Motor (Pmsm) Trade and Price Analysis

12.2 Permanent Magnet Synchronous Motor (Pmsm) Parent Market and Other Relevant Analysis

12.3 Publisher Expertise

12.2 Permanent Magnet Synchronous Motor (Pmsm) Industry Report Sources and Methodology

I would like to order

Product name: Permanent Magnet Synchronous Motor (Pmsm) Market Outlook 2025-2034: Market Share, and Growth Analysis By Type (Surface, Interior), By Capacity (375-450 kW, 450-600 kW, Above 600 kW), By Voltage Range, By Application

Product link: <https://marketpublishers.com/r/P4C8B5ECDB84EN.html>

Price: US\$ 3,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/P4C8B5ECDB84EN.html>