

# **Permanent Magnet Motor Market By Motor Type, (Alternating Current Motor, Direct Current Motor, Hermetic Motors), By Magnet Type, (Neodymium, Samarium Cobalt, Ferrite), By Application, (Factory Automation, Consumer, Office automation, Commercial), Estimation & Forecast, 2016 - 2024**

<https://marketpublishers.com/r/P4C5B94185BEN.html>

Date: October 2017

Pages: 159

Price: US\$ 4,421.00 (Single User License)

ID: P4C5B94185BEN

## **Abstracts**

The global permanent magnet motor market was valued at \$28.24 billion in 2016, and is projected to reach \$74.33 billion by 2024, having a CAGR of 13.2% during the forecast period of 2017 to 2024.

A permanent magnet is an object made from a material that is magnetized and generates its own determined magnetic field. As permanent magnets do not require continuous electrical energy to maintain their electric field, the PM motors are favored over electromagnetic motors. The magnets which are used in permanent magnet motors are the derivative of rare earth metals. Basically, a permanent magnet motor acts as a synchronous machine having a magnetic excitation on its rotor. The continuous need for an increased power density is actually leading to a growing demand for high speed permanent magnet motors. There are various kinds of permanent magnet motors, including AC motors, DC motors and hermetic motors which are used for specific purposes.

## **MARKET DETERMINANTS**

An increasing demand of electric motors in industrial and agricultural sector coupled with reduced power consumption by the use of PM motors are the major factors which are driving the permanent magnet motor market growth. Moreover, rising awareness

regarding green vehicles is also helping the permanent motor market to grow rapidly. In addition to this, the low cost of permanent magnets is leading to the reduction in the cost of PM motors. Global quantity of rare earth element oxides is estimated to be 110 million metric tons, which primarily occur, in China, Russia, the United States, India, and Australia. Moreover, exploration for additional REE deposits is ongoing, therefore, the world's known, in-the-ground resources of REEs are likely to increase, leading to reduction in their costs. However, the complex procedure of circuiting construction can limit the use of these motors in various application. Additionally, uncertain production and limited availability of rare earth materials can negatively influence the market growth. On the other hand, continuous rise in the growth of oil and gas industry can act as a future opportunity to the market growth.

## SEGMENT ANALYSIS

The permanent magnet motor market is segmented on the basis of motor type, magnet type, application, power range and geography. By motor type, the market is segmented into alternating current (AC) motors, direct Current (DC) motors and hermetic motors. On the basis of magnet type, the market is segmented as neodymium (NdFeB), samarium cobalt (SmCo5 and Sm2Co17) and ferrite. By power range the market is segmented into (below 4.0 kW), (4.0 kW-22.0 kW), (22 kW-75 kW) and (above 75 kW). Geographically, the market is bifurcated into North America, Europe, Asia-Pacific and Rest of World. As a result of their high power density, reliability, efficiency, maintenance free nature and silent operation, permanent magnet (PM) motors have been widely used in a variety of applications such as factory automation, consumer, office automation, commercial, lab equipment, medical and military/Aero.

The alternating current or (PMAC) motors are supposed to witness the fastest growth, having a CAGR of 15% throughout the forecast period, accounting to its low cost and light weight. According to a research done by Idaho National laboratory (INL), AC motors are much more efficient than DC motors and can exhibit an efficiency of 95% at full load.

Some major market players of the permanent magnet motor market are Toshiba Corporation, Autotrol Corporation, Danaher Corporation, Baldor Electric Company, Inc., Siemens, Rockwell Automation, Inc., Ametek Inc., Allied Motion Technologies, Inc., Johnson Electric Holdings Ltd. and Franklin Electric Co., Inc.

## GLOBAL PERMANENT MAGNET MOTOR market segmentation

## By Motor Type

Alternating Current Motor

Direct Current Motor

Hermetic Motors

## By Magnet Type

Neodymium (NdFeB)

Samarium Cobalt (SmCo5 and Sm2Co17)

Ferrite

## By Application

Factory Automation

Consumer

Office automation

Commercial

Lab equipment

Medical

Military/Aero

## By Geography

North America

Europe

Asia-Pacific

Rest of World

## **KEY MARKET PLAYERS**

Toshiba Corporation,

Autotrol Corporation

Danaher Corporation

Baldor Electric Company, Inc.

Siemens

Rockwell Automation, Inc.

Ametek Inc.

Allied Motion Technologies, Inc.

Johnson Electric Holdings Ltd.

Franklin Electric Co., Inc.

## Contents

### CHAPTER 1. INTRODUCTION

#### 1.1. RESEARCH METHODOLOGY

- 1.1.1. ERC desk research
- 1.1.2. ERC data synthesis
- 1.1.3. Data validation and market feedback
- 1.1.4. ERC data sources

#### 1.2. RESEARCH SCOPE

### CHAPTER 2. MARKET LANDSCAPE

#### 2.1. RESEARCH SUMMARY

#### 2.2. VALUE CHAIN ANALYSIS

#### 2.3. FIVE FORCES ANALYSIS

#### 2.4. MARKET SHARE ANALYSIS

#### 2.5. DEMAND FORECAST

#### 2.6. BUSINESS INTELLIGENCE & STRATEGIC ANALYSIS

#### 2.7. MARKET DETERMINANTS

##### 2.7.1. Drivers

- 2.7.1.1. Increasing demand of electric motor in agricultural and industrial sector
- 2.7.1.2. Enhanced productivity due to permanent magnets
- 2.7.1.3. Reduction in the power consumption
- 2.7.1.4. Increasing awareness regarding green vehicles amongst customers
- 2.7.1.5. Low cost permanent magnets minimizing the cost of motors

##### 2.7.2. Restraints

- 2.7.2.1. Complex circuiting of motors
- 2.7.2.2. Limited availability of rare earth magnets

##### 2.7.3. Opportunities

- 2.7.3.1. Creations of the rare earth magnets
- 2.7.3.2. Increase in gas and oil industries

### CHAPTER 3. GLOBAL PERMANENT MAGNET MOTOR MARKET BY MOTOR TYPE

#### 3.1. SEGMENT OUTLINE

#### 3.2. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY MOTOR TYPE, 2016-2024

#### 3.3. ALTERNATING CURRENT MOTOR

- 3.3.1. Trend analysis
- 3.3.2. Market growth indicators
- 3.3.3. Global alternating current motor market revenue by region, 2016-2024
- 3.4. DIRECT CURRENT MOTOR
  - 3.4.1. Trend analysis
  - 3.4.2. Market growth indicators
  - 3.4.3. Global direct current motor market revenue by region, 2016-2024
- 3.5. HERMETIC MOTORS
  - 3.5.1. Trend analysis
  - 3.5.2. Market growth indicators
  - 3.5.3. Global hermetic motor market revenue by region, 2016-2024

## **CHAPTER 4. GLOBAL PERMANENT MAGNET MOTOR MARKET BY MAGNET TYPE**

- 4.1. SEGMENT OUTLINE
- 4.2. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY MAGNET TYPE, 2016-2024
- 4.3. NEODYMIUM (NDFEB)
  - 4.3.1. Trend analysis
  - 4.3.2. Market growth indicators
  - 4.3.3. Global neodymium (NdFeB) market revenue by region, 2016-2024
- 4.4. SAMARIUM COBALT (SMCO5 AND SM2CO17)
  - 4.4.1. Trend analysis
  - 4.4.2. Market growth indicators
  - 4.4.3. Global samarium cobalt (SmCo5 and Sm2Co17) market revenue by region, 2016-2024
- 4.5. FERRITE
  - 4.5.1. Trend analysis
  - 4.5.2. Market growth indicators
  - 4.5.3. Global ferrite market revenue by region, 2016-2024

## **CHAPTER 5. GLOBAL PERMANENT MAGNET MOTOR MARKET BY APPLICATION**

- 5.1. SEGMENT OUTLINE
- 5.2. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY APPLICATION, 2016-2024
- 5.3. FACTORY AUTOMATION
  - 5.3.1. Trend analysis

- 5.3.2. Market growth indicators
- 5.3.3. Global factory automation market revenue by region, 2016-2024
- 5.4. CONSUMER
  - 5.4.1. Trend analysis
  - 5.4.2. Market growth indicators
  - 5.4.3. Global consumer market revenue by region, 2016-2024
- 5.5. OFFICE AUTOMATION
  - 5.5.1. Trend analysis
  - 5.5.2. Market growth indicators
  - 5.5.3. Global office automation market revenue by region, 2016-2024
- 5.6. COMMERCIAL
  - 5.6.1. Trend analysis
  - 5.6.2. Market growth indicators
  - 5.6.3. Global commercial market revenue by region, 2016-2024
- 5.7. LAB EQUIPMENT
  - 5.7.1. Trend analysis
  - 5.7.2. Market growth indicators
  - 5.7.3. Global lab equipment market revenue by region, 2016-2024
- 5.8. MEDICAL
  - 5.8.1. Trend analysis
  - 5.8.2. Market growth indicators
  - 5.8.3. Global medical market revenue by region, 2016-2024
- 5.9. MILITARY/AERO
  - 5.9.1. Trend analysis
  - 5.9.2. Market growth indicators
  - 5.9.3. Global military/aero market revenue by region, 2016-2024

## **CHAPTER 6. GLOBAL PERMANENT MAGNET MOTOR BY POWER RANGE**

- 6.1. SEGMENT OUTLINE
- 6.2. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY POWER RANGE, 2016-2024
- 6.3. BELOW 4.0 KW
  - 6.3.1. Trend analysis
  - 6.3.2. Market growth indicators
  - 6.3.3. Global below 4.0KW market revenue by region, 2016-2024
- 6.4. 4.0KW - 22.0KW
  - 6.4.1. Trend analysis
  - 6.4.2. Market growth indicators

- 6.4.3. Global 4.0KW -22.0KW market revenue by region, 2016-2024
- 6.5. 22KW – 75KW
  - 6.5.1. Trend analysis
  - 6.5.2. Market growth indicators
  - 6.5.3. Global 22KW – 75KW market revenue by region, 2016-2024
- 6.6. ABOVE 75KW
  - 6.6.1. Trend analysis
  - 6.6.2. Market growth indicators
  - 6.6.3. Global above 75KW market revenue by region, 2016-2024

## **CHAPTER 7. GLOBAL PERMANENT MAGNET MOTOR MARKET BY GEOGRAPHY**

- 7.1. SEGMENT OUTLINE
- 7.2. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY GEOGRAPHY, 2016-2024
- 7.3. NORTH AMERICA
  - 7.3.1. Trend analysis
  - 7.3.2. Market growth indicators
  - 7.3.3. North America permanent magnet motor market revenue by magnet type, 2016-2024
- 7.4. EUROPE
  - 7.4.1. Trend analysis
  - 7.4.2. Market growth indicators
  - 7.4.3. Europe permanent magnet motor market revenue by magnet type, 2016-2024
- 7.5. ASIA PACIFIC
  - 7.5.1. Trend analysis
  - 7.5.2. Market growth indicators
  - 7.5.3. Asia Pacific permanent magnet motor market revenue by magnet type, 2016-2024
- 7.6. ROW
  - 7.6.1. Trend analysis
  - 7.6.2. Market growth indicators
  - 7.6.3. ROW permanent magnet motor market revenue by magnet type, 2016-2024

## **CHAPTER 8. KEY VENDOR PROFILES**

- 8.1. TOSHIBA CORPORATION
  - 8.1.1. Company synopsis
  - 8.1.2. Company snapshot



- 8.1.3. Business overview
- 8.1.4. Strategic analysis
- 8.2. AUTOTROL CORPORATION
  - 8.2.1. Company synopsis
  - 8.2.2. Company snapshot
  - 8.2.3. Business overview
  - 8.2.4. Strategic analysis
- 8.3. DANAHER CORPORATION
  - 8.3.1. Company synopsis
  - 8.3.2. Company snapshot
  - 8.3.3. Business overview
  - 8.3.4. Strategic analysis
- 8.4. BALDOR ELECTRIC COMPANY, INC.
  - 8.4.1. Company synopsis
  - 8.4.2. Company snapshot
  - 8.4.3. Business overview
  - 8.4.4. Strategic analysis
- 8.5. SIEMENS
  - 8.5.1. Company synopsis
  - 8.5.2. Company snapshot
  - 8.5.3. Business overview
  - 8.5.4. Strategic analysis
- 8.6. ROCKWELL AUTOMATION, INC
  - 8.6.1. Company synopsis
  - 8.6.2. Company snapshot
  - 8.6.3. Business overview
  - 8.6.4. Strategic analysis
- 8.7. AMETEK INC.
  - 8.7.1. Company synopsis
  - 8.7.2. Company snapshot
  - 8.7.3. Business overview
  - 8.7.4. Strategic analysis
- 8.8. ALLIED MOTION TECHNOLOGIES, INC:
  - 8.8.1. Company synopsis
  - 8.8.2. Company snapshot
  - 8.8.3. Business overview
  - 8.8.4. Strategic analysis
- 8.9. JOHNSON ELECTRIC HOLDINGS LTD.
  - 8.9.1. Company synopsis

8.9.2. Company snapshot

8.9.3. Business overview

8.9.4. Strategic analysis

8.10. FRANKLIN ELECTRIC CO., INC.

8.10.1. Company synopsis

8.10.2. Company snapshot

8.10.3. Business overview

8.10.4. Strategic analysis

## List Of Tables

### LIST OF TABLES

TABLE NO 1. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY MOTOR TYPE, 2016-2024 (\$MILLION)

TABLE NO 2. GLOBAL ALTERNATING CURRENT MOTOR MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 3. GLOBAL DIRECT CURRENT MOTOR MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 4. GLOBAL HERMETIC MOTOR MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 5. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY MAGNET TYPE, 2016-2024 (\$MILLION)

TABLE NO 6. GLOBAL NEODYMIUM (NDFEB) MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 7. GLOBAL SAMARIUM COBALT (SMCO5 AND SM2CO17) MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 8. GLOBAL FERRITE MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 9. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)

TABLE NO 10. GLOBAL FACTORY AUTOMATION MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 11. GLOBAL CONSUMER MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 12. GLOBAL OFFICE AUTOMATION MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 13. GLOBAL COMMERCIAL MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 14. GLOBAL LAB EQUIPMENT MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 15. GLOBAL MEDICAL MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 16. GLOBAL MILITARY/AERO MARKET REVENUE BY REGION, 2016-2024 (\$MILLION)

TABLE NO 17. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY POWER RANGE, 2016-2024 (\$MILLION)

TABLE NO 18. GLOBAL BELOW 4.0KW MARKET REVENUE BY REGION, 2016-2024

(\$MILLION)

TABLE NO 19. GLOBAL 4.0KW – 22.0KW MARKET REVENUE BY REGION,  
2016-2024 (\$MILLION)

TABLE NO 20. GLOBAL 22KW – 75KW MARKET REVENUE BY REGION, 2016-2024  
(\$MILLION)

TABLE NO 21. GLOBAL ABOVE 75KW MARKET REVENUE BY REGION, 2016-2024  
(\$MILLION)

TABLE NO 22. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY  
GEOGRAPHY, 2016-2024 (\$MILLION)

TABLE NO 23. NORTH AMERICA PERMANENT MAGNET MOTOR MARKET  
REVENUE BY MAGNET TYPE, 2016-2024 (\$MILLION)

TABLE NO 24. EUROPE PERMANENT MAGNET MOTOR MARKET REVENUE BY  
MAGNET TYPE, 2016-2024 (\$MILLION)

TABLE NO 25. ASIA PACIFIC PERMANENT MAGNET MOTOR MARKET REVENUE  
BY MAGNET TYPE, 2016-2024 (\$MILLION)

TABLE NO 26. ROW PERMANENT MAGNET MOTOR MARKET REVENUE BY  
MAGNET TYPE, 2016-2024 (\$MILLION)

## List Of Figures

### LIST OF FIGURES

- FIGURE NO 1. VALUE CHAIN ANALYSIS
- FIGURE NO 2. FIVE FORCES ANALYSIS
- FIGURE NO 3. MARKET SHARE ANALYSIS
- FIGURE NO 4. INVESTMENT OPPORTUNITIES
- FIGURE NO 5. KEY STRATEGIC ATTEMPTS (%SHARE)
- FIGURE NO 6. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY MOTOR TYPE, 2016-2024 (\$MILLION)
- FIGURE NO 7. GLOBAL ALTERNATING CURRENT MOTOR MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 8. GLOBAL DIRECT CURRENT MOTOR MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 9. GLOBAL HERMETIC CURRENT MOTOR MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 10. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY MAGNET TYPE, 2016-2024 (\$MILLION)
- FIGURE NO 11. GLOBAL NEODYMIUM (NDFEB) MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 12. GLOBAL SAMARIUM COBALT (SMCO5 AND SM2CO17) MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 13. GLOBAL FERRITE MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 14. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY APPLICATION, 2016-2024 (\$MILLION)
- FIGURE NO 15. GLOBAL FACTORY AUTOMATION MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 16. GLOBAL CONSUMER MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 17. GLOBAL OFFICE AUTOMATION MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 18. GLOBAL COMMERCIAL MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 19. GLOBAL LAB EQUIPMENT MARKET REVENUE BY REGION 2016-2024 (\$MILLION)
- FIGURE NO 20. GLOBAL MEDICAL MARKET REVENUE BY REGION 2016-2024 (\$MILLION)

FIGURE NO 21. GLOBAL MILITARY/AERO MARKET REVENUE BY REGION  
2016-2024 (\$MILLION)

FIGURE NO 22. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY  
POWER RANGE, 2016-2024 (\$MILLION)

FIGURE NO 23. GLOBAL BELOW 4.0KW MARKET REVENUE BY REGION  
2016-2024 (\$MILLION)

FIGURE NO 24. GLOBAL 4.0KW -22.0KW MARKET REVENUE BY REGION  
2016-2024 (\$MILLION)

FIGURE NO 25. GLOBAL 22KW – 75KW MARKET REVENUE BY REGION 2016-2024  
(\$MILLION)

FIGURE NO 26. GLOBAL ABOVE 75KW MARKET REVENUE BY REGION 2016-2024  
(\$MILLION)

FIGURE NO 27. GLOBAL PERMANENT MAGNET MOTOR MARKET REVENUE BY  
GEOGRAPHY, 2016-2024 (\$MILLION)

FIGURE NO 28. NORTH AMERICA PERMANENT MOTOR MARKET REVENUE BY  
MAGNET TYPE, 2016-2024 (\$MILLION)

FIGURE NO 29. EUROPE PERMANENT MOTOR MARKET REVENUE BY MAGNET  
TYPE, 2016-2024 (\$MILLION)

FIGURE NO 30. ASIA PACIFIC PERMANENT MOTOR MARKET REVENUE BY  
MAGNET TYPE, 2016-2024 (\$MILLION)

FIGURE NO 31. ROW PERMANENT MOTOR MARKET REVENUE BY MAGNET  
TYPE, 2016-2024 (\$MILLION)

## I would like to order

Product name: Permanent Magnet Motor Market By Motor Type, (Alternating Current Motor, Direct Current Motor, Hermetic Motors), By Magnet Type, (Neodymium, Samarium Cobalt, Ferrite), By Application, (Factory Automation, Consumer, Office automation, Commercial), Estimation & Forecast, 2016 - 2024

Product link: <https://marketpublishers.com/r/P4C5B94185BEN.html>

Price: US\$ 4,421.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/P4C5B94185BEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below  
and fax the completed form to +44 20 7900 3970