+357 96 030922
info@marketpublishers.com

AC Drives Market Forecasts to 2030 – Global Analysis By Voltage (Low Voltage, Medium Voltage and High Voltage), Power Rating (Low Power (Up to 40kw), Medium Power (41-200kw) and High Power (Above 200kw)), Application, End User and By Geography

https://marketpublishers.com/r/AA3AC4EEC287EN.html
Date: February 2025
Pages: 150
Price: US$ 4,150.00 (Single User License)
ID: AA3AC4EEC287EN

Abstracts

According to Stratistics MRC, the Global AC Drives Market is accounted for $15.72 billion in 2024 and is expected to reach $23.80 billion by 2030 growing at a CAGR of 7.15% during the forecast period. AC drives, sometimes referred to as variable frequency drives (VFDs) or adjustable speed drives (ASDs), are electronic devices that alter the input frequency and voltage that are supplied to AC motors in order to regulate their speed and torque. These drives are essential for minimizing wear and tear on mechanical systems, increasing process control, and optimizing energy consumption. Moreover, AC drives find widespread use in HVAC systems, conveyor belts, pumps, and fans in commercial, residential, and industrial settings.

According to the International Energy Agency (IEA), the global demand for electricity is expected to grow by 2.1% per year until 2040, driven by increasing electrification in various sectors.

Market Dynamics:

Driver:

Growing development of infrastructure

The demand for AC drives has increased dramatically due to the boom in infrastructure development, particularly in emerging economies. AC drives are essential to the

+357 96 030922
info@marketpublishers.com

effective operation of many applications, including water supply systems in residential and commercial buildings, elevators, escalators, and HVAC systems. Additionally, AC drives are essential for integrating energy-efficient solutions into urban infrastructure in smart city projects, which ensure sustainability while satisfying rising energy demands. For instance, AC drives in high-rise buildings guarantee the energy-efficient and seamless operation of ventilation and elevator systems, improving occupant safety and comfort.

Restraint:

High starting expenses

The high initial cost of AC drives is one of the main barriers to their widespread use. The initial cost of buying and installing AC drives can be a major turnoff, particularly for small and medium-sized businesses (SMEs), even though these devices offer long-term energy savings and operational efficiency. When auxiliary parts like filters, controllers, and cabling are taken into account, along with installation and commissioning costs, the costs go up even more. Furthermore, this problem is especially noticeable in markets with high prices, where companies are reluctant to make significant investments in cutting-edge machinery even though doing so could have advantages.

Opportunity:

Growing attention to microgrids and smart grids

The increasing use of microgrids and smart grids presents a profitable market for producers of AC drives. In order to maintain effective and dependable power delivery in these systems, AC drives are essential for controlling energy distribution and load balancing. By facilitating the smooth integration of dispersed energy resources like solar panels and battery storage, microgrids maximize energy use. Moreover, it is anticipated that the need for sophisticated AC drives with the capacity to support smart grid projects will increase as these projects spread throughout the world.

Threat:

Industrial slowdowns and economic uncertainty

Prolonged periods of economic instability can hinder market growth and delay adoption of new technologies. Global economic uncertainties, such as trade conflicts, recessions,

+357 96 030922
info@marketpublishers.com

or geopolitical tensions, can have a significant impact on industrial investments, lowering the demand for AC drives. Additionally, industries that are major consumers of AC drives, such as manufacturing, construction, and oil and gas, are particularly vulnerable to economic downturns. For instance, during the COVID-19 pandemic, the slowdown in industrial activities led to reduced capital expenditures, negatively affecting the market for AC drives.

Covid-19 Impact:

Due to global lockdowns and restrictions, the COVID-19 pandemic caused a major disruption in the market for AC drives by slowing down infrastructure development, construction projects, and industrial activity. Disruptions to the global supply chain and a scarcity of raw materials, such as semiconductors, also caused production delays and raised manufacturing costs. The market did, however, gradually recover as industries adjusted to new operational challenges, focusing on digitalization and remote monitoring solutions in the post-pandemic era. The pandemic also brought attention to the significance of automation and energy efficiency.

The Low Power (Up to 40kw) segment is expected to be the largest during the forecast period

Due to its extensive use in a variety of industries, such as manufacturing, HVAC, water and wastewater treatment, and small-scale industrial setups, the Low Power (up to 40 kW) segment is expected to hold the largest share in the AC drives market. These drives are very popular because of their low cost, small size, and energy-efficient features, which make them perfect for managing smaller motors found in conveyors, fans, and pumps. Furthermore, technological developments and the incorporation of IoT and smart control features in this market segment have increased its attractiveness and solidified its leading position.

The Pumps segment is expected to have the highest CAGR during the forecast period

Due to its vital role in sectors like agriculture, chemicals, oil and gas, and water and wastewater management, the pumps segment is anticipated to have the highest CAGR in the AC drives market. Stricter environmental regulations and growing energy costs have increased demand for energy-efficient pump operations, which has led to the adoption of AC drives for optimal performance. AC drives are essential in both the industrial and municipal sectors because they allow for precise speed control, lower energy consumption, and lower maintenance costs in pump applications. Moreover, the

+357 96 030922
info@marketpublishers.com

increasing emphasis on environmentally friendly water management and infrastructure development, especially in developing nations, is hastening the use of AC drives in pump systems and supporting the quick expansion of this market.

Region with largest share:

Due to the region's strong industrial growth, fast urbanization, and rising infrastructure development investments, the Asia Pacific region is anticipated to hold the largest share of the AC drives market. Because of their vast manufacturing bases, growing need for energy-efficient solutions, and government programs encouraging sustainable industrial practices, major economies like China, India, and Japan dominate the market. There is a high demand for AC drives in a variety of applications, including pumps, fans, and conveyors, due to the expanding construction, automotive, and oil and gas industries in these nations.

Region with highest CAGR:

The market for AC drives is anticipated to grow at the highest CAGR in South America due to the region's growing emphasis on energy efficiency, growing manufacturing sectors, and increased industrialization. The need for automation and energy-saving solutions is growing as nations like Brazil, Mexico, and Argentina make significant investments in infrastructure and industrial facility modernization. The use of AC drives is also encouraged by the increased emphasis on lowering energy consumption in sectors like mining, oil and gas, and agriculture. Furthermore, the market in South America is growing quickly owing to government programs and investments that support industrial development and sustainable development in the region.

Key players in the market

Some of the key players in AC Drives market include GE Vernova, Emerson Electric Co., Fuji Electric Holdings, ABB Ltd., Schneider Electric SE, Rockwell Automation, Inc., Mitsubishi Electric Corporation, Eaton Corporation Plc, Siemens AG, Danfoss A/S, Parker Hannifin Co., Yaskawa Electric Corporation, Hitachi Ltd., Toshiba International Corporation Ltd. and Nidec Inc.

Key Developments:

In September 2024, GE Vernova Inc. announced that it has entered into an agreement with Public Power Corporation Renewables (PPC R) to supply, install and commission

+357 96 030922
info@marketpublishers.com

23 of GE Vernova's 6.1 MW #- #158m* turbines for a wind farm in Vaslui County, Romania. The deal, which was booked in the second quarter of 2024, expands the presence of GE Vernova’s Onshore Wind business in Romania by adding 140 MW to the company’s existing installed base of more than 700 MW in the country.

In September 2024, Emerson and Nozomi Networks have announced an expansion of their existing partnership. The new agreement aims to better address the growing demand for OT cybersecurity services and solutions across the power and water industries, with Nozomi’s advanced solutions for industrial control system cyber resiliency and real-time operational visibility now available to Emerson customers globally.

In February 2024, Schneider Electric announced that it has committed to invest in a portfolio of Texas-based clean energy projects utilizing a Tax Credit Transfer Agreement (TCTA) for solar and battery storage systems developed, built, and operated by ENGIE North America. The contracted projects are expected to come online throughout 2024 and will enable Schneider Electric to get closer to its 100 per cent renewable energy goal in the U.S. and Canada.

Voltages Covered:

- Low Voltage
- Medium Voltage
- High Voltage

Power Ratings Covered:

- Low Power (Up to 40kw)
- Medium Power (41-200kw)
- High Power (Above 200kw)

Applications Covered:

+357 96 030922
info@marketpublishers.com

- Compressor
- Fans
- Pumps
- Conveyors
- Extruders
- Other Applications

End Users Covered:

- Oil & Gas
- Power generation
- Automation
- Food & Beverage
- Water & wastewater
- Metals & Mining
- Chemicals & Petrochemicals
- Other End Users

Regions Covered:

- North America
  - US
  - Canada

+357 96 030922
info@marketpublishers.com

- 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

+357 96 030922
info@marketpublishers.com

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)

+357 96 030922
info@marketpublishers.com

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

+357 96 030922
info@marketpublishers.com

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

2.1 Abstract
2.2 Stake Holders
2.3 Research Scope
2.4 Research Methodology
  2.4.1 Data Mining
  2.4.2 Data Analysis
  2.4.3 Data Validation
  2.4.4 Research Approach
2.5 Research Sources
  2.5.1 Primary Research Sources
  2.5.2 Secondary Research Sources
  2.5.3 Assumptions

3 MARKET TREND ANALYSIS

3.1 Introduction
3.2 Drivers
3.3 Restraints
3.4 Opportunities
3.5 Threats
3.6 Application Analysis
3.7 End User Analysis
3.8 Emerging Markets
3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

4.1 Bargaining power of suppliers
4.2 Bargaining power of buyers
4.3 Threat of substitutes
4.4 Threat of new entrants
4.5 Competitive rivalry

+357 96 030922
info@marketpublishers.com

5 GLOBAL AC DRIVES MARKET, BY VOLTAGE

5.1 Introduction
5.2 Low Voltage
5.3 Medium Voltage
5.4 High Voltage

6 GLOBAL AC DRIVES MARKET, BY POWER RATING

6.1 Introduction
6.2 Low Power (Up to 40kw)
6.3 Medium Power (41-200kw)
6.4 High Power (Above 200kw)

7 GLOBAL AC DRIVES MARKET, BY APPLICATION

7.1 Introduction
7.2 Compressor
7.3 Fans
7.4 Pumps
7.5 Conveyors
7.6 Extruders
7.7 Other Applications

8 GLOBAL AC DRIVES MARKET, BY END USER

8.1 Introduction
8.2 Oil & Gas
8.3 Power generation
8.4 Automation
8.5 Food & Beverage
8.6 Water & wastewater
8.7 Metals & Mining
8.8 Chemicals & Petrochemicals
8.9 Other End Users

9 GLOBAL AC DRIVES MARKET, BY GEOGRAPHY

9.1 Introduction

+357 96 030922
info@marketpublishers.com

9.2 North America
9.2.1 US
9.2.2 Canada
9.2.3 Mexico
9.3 Europe
9.3.1 Germany
9.3.2 UK
9.3.3 Italy
9.3.4 France
9.3.5 Spain
9.3.6 Rest of Europe
9.4 Asia Pacific
9.4.1 Japan
9.4.2 China
9.4.3 India
9.4.4 Australia
9.4.5 New Zealand
9.4.6 South Korea
9.4.7 Rest of Asia Pacific
9.5 South America
9.5.1 Argentina
9.5.2 Brazil
9.5.3 Chile
9.5.4 Rest of South America
9.6 Middle East & Africa
9.6.1 Saudi Arabia
9.6.2 UAE
9.6.3 Qatar
9.6.4 South Africa
9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

10.1 Agreements, Partnerships, Collaborations and Joint Ventures
10.2 Acquisitions & Mergers
10.3 New Product Launch
10.4 Expansions
10.5 Other Key Strategies

+357 96 030922
info@marketpublishers.com

11 COMPANY PROFILING

11.1 GE Vernova
11.2 Emerson Electric Co.
11.3 Fuji Electric Holdings
11.4 ABB Ltd.
11.5 Schneider Electric SE
11.6 Rockwell Automation, Inc.
11.7 Mitsubishi Electric Corporation
11.8 Eaton Corporation Plc
11.9 Siemens AG
11.10 Danfoss A/S
11.11 Parker Hannifin Co.
11.12 Yaskawa Electric Corporation
11.13 Hitachi Ltd.
11.14 Toshiba International Corporation Ltd.
11.15 Nidec Inc

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

Table 1 Global AC Drives Market Outlook, By Region (2022-2030) ($MN)
Table 2 Global AC Drives Market Outlook, By Voltage (2022-2030) ($MN)
Table 3 Global AC Drives Market Outlook, By Low Voltage (2022-2030) ($MN)
Table 4 Global AC Drives Market Outlook, By Medium Voltage (2022-2030) ($MN)
Table 5 Global AC Drives Market Outlook, By High Voltage (2022-2030) ($MN)
Table 6 Global AC Drives Market Outlook, By Power Rating (2022-2030) ($MN)
Table 7 Global AC Drives Market Outlook, By Low Power (Up to 40kw) (2022-2030) ($MN)
Table 8 Global AC Drives Market Outlook, By Medium Power (41-200kw) (2022-2030) ($MN)
Table 9 Global AC Drives Market Outlook, By High Power (Above 200kw) (2022-2030) ($MN)
Table 10 Global AC Drives Market Outlook, By Application (2022-2030) ($MN)
Table 11 Global AC Drives Market Outlook, By Compressor (2022-2030) ($MN)
Table 12 Global AC Drives Market Outlook, By Fans (2022-2030) ($MN)
Table 13 Global AC Drives Market Outlook, By Pumps (2022-2030) ($MN)
Table 14 Global AC Drives Market Outlook, By Conveyors (2022-2030) ($MN)
Table 15 Global AC Drives Market Outlook, By Extruders (2022-2030) ($MN)
Table 16 Global AC Drives Market Outlook, By Other Applications (2022-2030) ($MN)
Table 17 Global AC Drives Market Outlook, By End User (2022-2030) ($MN)
Table 18 Global AC Drives Market Outlook, By Oil & Gas (2022-2030) ($MN)
Table 19 Global AC Drives Market Outlook, By Power generation (2022-2030) ($MN)
Table 20 Global AC Drives Market Outlook, By Automation (2022-2030) ($MN)
Table 21 Global AC Drives Market Outlook, By Food & Beverage (2022-2030) ($MN)
Table 22 Global AC Drives Market Outlook, By Water & wastewater (2022-2030) ($MN)
Table 23 Global AC Drives Market Outlook, By Metals & Mining (2022-2030) ($MN)
Table 24 Global AC Drives Market Outlook, By Chemicals & Petrochemicals (2022-2030) ($MN)
Table 25 Global AC Drives Market Outlook, By Other End Users (2022-2030) ($MN)

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

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: AC Drives Market Forecasts to 2030 – Global Analysis By Voltage (Low Voltage, Medium Voltage and High Voltage), Power Rating (Low Power (Up to 40kw), Medium Power (41-200kw) and High Power (Above 200kw)), Application, End User and By Geography

Product link: https://marketpublishers.com/r/AA3AC4EEC287EN.html

Price: US$ 4,150.00 (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/AA3AC4EEC287EN.html