

# **Variable Frequency Drives Market Report by Product Type (AC Drives, DC Drives, Servo Drives), Power Range (Micro (0-5 kW), Low (6-40 kW), Medium (41-200 kW), High (>200 kW)), Application (Pumps, Fans, Conveyors, HVAC, Extruders, and Others), End Use (Oil and Gas, Power Generation, Industrial, Infrastructure, Automotive, Food and Beverages, and Others), and Region 2024-2032**

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## **Abstracts**

The global variable frequency drives (vfd) market size reached US\$ 30.8 Billion in 2023. Looking forward, the market is expected to reach US\$ 47.6 Billion by 2032, exhibiting a growth rate (CAGR) of 4.9% during 2024-2032.

A variable frequency drive (VFD) is an electrical device that controls the speed of an alternating current (AC) motor according to the requirements of a particular application. By changing the applied voltage supplied to the motor, it helps to control the operating speed, reduce energy consumption and minimize operational costs for a variety of motor-driven applications. VFDs are equipped with sensors that measure important parameters, such as temperature and pressure in order to streamline performance and prevent motor damage. Moreover, the usage of a VFD in conjunction with a machine allows for the utilization of software solutions to monitor the functioning of speed, thus improving overall efficiency, simplifying the system, reducing downtime and improving mechanical resonance. As a result, VFDs are extensively used in conveyors, fans, pumps, fans, blowers, compressors, coolers, grinders, crushers, and chippers.

Variable Frequency Drives Market Trends:

The market is majorly driven by the rising demand for connected devices in commercial, industrial, and residential sectors due to rapid automation. Moreover, the escalating need for stable and reliable transmission and distribution (T&D) networks due to the increasing energy demand on the global level are resulting in the modernization of power infrastructure, which, in turn, is creating a positive market outlook. Also, an enhanced focus on sustainable development is leading to a higher product uptake in a wide range of end use industries, primarily manufacturing, chemical and petrochemical, paper and pulp, and heavy machinery, for diverse applications. Some of the other factors further contributing to the market growth include the increasing penetration of the internet of things (IoT) in industrial applications, favorable government regulations promoting energy conservation, rapid industrialization and the advent of Industry 4.0.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global variable frequency drives market report, along with forecasts at the global, regional and country levels from 2024-2032. Our report has categorized the market based on product type, power range, application and end use.

#### Breakup by Product Type:

- AC Drives
- DC Drives
- Servo Drives

#### Breakup by Power Range:

- Micro (0-5 kW)
- Low (6-40 kW)
- Medium (41-200 kW)
- High (>200 kW)

#### Breakup by Application:

- Pumps
- Fans
- Conveyors
- HVAC
- Extruders
- Others

### Breakup by End Use:

- Oil and Gas
- Power Generation
- Industrial
- Infrastructure
- Automotive
- Food and Beverages
- Others

### Breakup by Region:

- North America
  - United States
  - Canada
- Asia-Pacific
  - China
  - Japan
  - India
  - South Korea
  - Australia
  - Indonesia
  - Others
- Europe
  - Germany
  - France
  - United Kingdom
  - Italy
  - Spain
  - Russia
  - Others
- Latin America
  - Brazil
  - Mexico
  - Others
- Middle East and Africa

### Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being ABB Ltd., Danfoss A/S, Eaton Corporation PLC, Fuji Electric Co. Ltd., General Electric Company, Hitachi Ltd., Honeywell International Inc., Johnson Controls International PLC, Mitsubishi Electric Corporation, Nidec Motor Corporation, Rockwell Automation Inc., Schneider Electric SE, Siemens AG, Toshiba Corporation and Yaskawa Electric Corporation.

#### Key Questions Answered in This Report:

How has the global variable frequency drives market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global variable frequency drives market?

What are the key regional markets?

What is the breakup of the market based on the product type?

What is the breakup of the market based on the power range?

What is the breakup of the market based on the application?

What is the breakup of the market based on the end use?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global variable frequency drives market and who are the key players?

What is the degree of competition in the industry?

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