

North America Electric Drives Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The North America Electric Drives market is analyzed to grow at a CAGR of 6.79% during the forecast period 2022-2027. An electric drive (also known as an electric controller) is a device that controls the output of a motor, such as an electric actuator, to produce linear motion. As a principal source of energy, this drive uses a prime mover such as a gasoline engine, otherwise diesel, steam turbines, otherwise gas, electrical, and hydraulic motors. These prime movers will provide mechanical energy to the drive system for motion control.

Key Highlights

An electric drive can be constructed using an electric drive motor and a complex control system to control the rotation shaft of the motor. This can be controlled entirely by software. As a result, the controlling becomes more precise, and this drive concept is simple to use. Electrical drives are a critical component in industrial applications, driving technological advancements and gaining attention from a multitude of sources.

The growing adoption of automation in the region is majorly contributing to the demand for the electric drives market. Manufacturing is moving closer to the customer as a result of trade tensions and COVID-19. Companies are considering nearshoring with automation as a solution to supply-chain concerns.

One particular statistic from the United States demonstrates how automation is assisting firms in resuming operations. Robot orders in the third quarter of 2021 in the United States were up 35% over the same period in 2020, according to the Association for Advancing Automation (A3). Non-automotive sectors account for more than half of the orders.

The primary cost of the electric drives is high, hence is considered a challenge for the market during the forecast period.

North America Electric Drives Market Trends

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Servo Drives are Analyzed to Hold Significant Share

The servo drive's function is to convert low power instruction signals from the controller into high power voltage and current for the motor. The servo drive can regulate and properly coordinate the motor's desired location, speed, torque, and other parameters depending on the application. They're employed in a variety of robotic applications, including Servo motors installed in every joint of a robotic welding arm, allowing for mobility and increased dexterity.

Motors are required for robotic arms to move. Robots are sometimes servo-driven, which means that the motors are controlled by a servo-drive. It's critical to be able to control robot mobility. Servo-driven robots can regulate motion more precisely than AC or DC motors. All of these will assist the robot in moving and operating, but the servo-driven robotic system will also get feedback from the robot in the event of a motion problem. Servo-drives are commonly seen in robots, and they are also found in factory automation and CNC machining.

For instance, US-based RobotWorx, a FANUC, Motoman, ABB, Universal Robots, and KUKA certified integrator, offers servo-driven robots. These robots are fast and precise, and they can be manufactured as part of or apart from motors.

Robots are rapidly being adopted by segments that are new to automation. Companies are responding to consumer demand for the personalization of both products and delivery. The North American robotics market had its strongest quarter to start the year, with companies from the United States, Canada, and Mexico ordering 11,595 industrial robots, a 28% increase over the first quarter of 2021. The region's revenue increased by 43% to USD 664 million (source: International Federation of Robotics).

United States is Expected to Register the Fastest Growth Rate

The United States is the major shareholder of the market in 2021 and is analyzed to maintain its position throughout the forecast period owing to the presence of various manufacturing industries.

In 2018, the United States surpassed Saudi Arabia as the world's leading crude oil producer, a position it held until 2020. Crude oil generated in the United States and other countries is obtained by US oil refineries. Crude oil is supplied to the global market by a variety of companies.

Crude oil is produced by almost 100 countries. In 2021, however, five countries accounted for around 51% of global crude oil production, with the United States holding 14.5% of the share. Crude oil is produced in 32 states and coastal waters off the coast of the United States. Five states accounted for over 71% of total crude oil output in the United States in 2021. (Source: US Energy Information Administration).

In the oil and gas industry, electric drives are used to control motor speeds and operate key components such as pumps, fans, and compressors. Although both AC and DC drives are utilized, AC drives are the most common. High-powered drives are used in the oil and gas industry for essential applications such as drilling and pump rod usage.

In many cases, systems must be tailored to meet specific requirements. Such applications necessitate unique drives with additional intelligence or controls for characteristics other than speed and torque. Furthermore, power and voltage requirements vary depending on the application. Therefore drives must often be custom-designed and produced.

Further, with 79% of the region's total installations, the United States is the region's top industrial robot consumer. These factors are significantly boosting the market growth rate in the country during the forecast period.

North America Electric Drives Market Competitor Analysis

The market for electric drives is estimated to be highly competitive over the forecast period, as the players in the market are increasingly working on new product development with a sharp focus on overcoming the shortcomings of the predecessor. The

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players are also focusing on partnerships, mergers, and acquisitions to expand their consumer base. Major players in the market include Rockwell Automation, ABB Ltd., Schneider Electric, Siemens AG, and Emerson Electric, among others.

January 2021 - The Kinetix 5100 servo drive with Kinetix TLP servo motor standalone motion solution from Rockwell Automation is launched in 480V for applications in packaging, converting, print, and web, machine and assembly, and life sciences OEM applications. By providing a market-competitive motion-control capability for versatile, freestanding machines, the Kinetix 5100 servo system addresses growing consumer demand for more product variety. OEMs can design a motorized or automated system with the Kinetix 5100 servo drive to assist speed up changeovers.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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