

Global MOSFET Relay Market Size Study & Forecast, by Voltage (Below 200V, 200–500V, 500–1kV, 1–7.5kV, 7.5–10kV, Above 10kV), by Application (Industrial, Household Appliances, Test & Measurements, Mining, Automotive, Medical, Renewables, Charging Stations), and Regional Forecasts 2025–2035

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Abstracts

The Global MOSFET Relay Market is valued at approximately USD 0.27 billion in 2024 and is expected to expand at a compelling compound annual growth rate (CAGR) of 9.10% over the forecast period from 2025 to 2035. MOSFET relays, known for their compact size, silent operation, high-speed switching, and superior electrical isolation, are witnessing a sharp rise in adoption across several industries. As digital transformation surges across manufacturing and electronics domains, demand for solid-state switching components like MOSFET relays continues to skyrocket, primarily due to their durability, low on-resistance, and ability to handle a wide range of voltage conditions. With the global industrial ecosystem pivoting toward automation and efficient power electronics, the role of advanced switching solutions such as MOSFET relays becomes undeniably pivotal in achieving performance reliability and system protection.

The growth trajectory of the MOSFET relay market is being propelled by the accelerating demand in high-precision industrial machinery, automotive safety modules, and smart home appliances. As industries transition from electromechanical relays to their solid-state counterparts, the shift is driven by the need for faster switching times, reduced EMI, and longer operational lifespan. Additionally, the integration of MOSFET relays into renewable energy setups and electric vehicle charging infrastructure opens up new opportunities. For example, as the global EV fleet expands and renewable integration intensifies, robust switching devices that ensure operational safety and

efficiency are more critical than ever. Moreover, the relentless pursuit of miniaturization in consumer electronics is compelling manufacturers to opt for MOSFET relays over bulkier alternatives, further fueling the market's penetration.

Regionally, North America continues to dominate the MOSFET relay market landscape, backed by its robust automation sector, early adoption of advanced technologies, and extensive research and development efforts. The United States leads in deploying solid-state switching devices across industrial automation and semiconductor testing applications. Meanwhile, Europe is not far behind, with strong demand emerging from the automotive and renewable energy sectors, spurred by the continent's push for green energy adoption and electrified mobility. Asia Pacific, however, is expected to register the fastest growth during the forecast period. This momentum stems from the region's booming consumer electronics manufacturing in nations like China, Japan, and South Korea, paired with the rapid expansion of electric vehicle production and infrastructure projects across India and Southeast Asia. These dynamics are collectively bolstering the need for dependable, compact, and high-speed switching solutions such as MOSFET relays.

Major market player included in this report are:

Omron Corporation

Panasonic Holdings Corporation

Crydom Inc.

Vishay Intertechnology, Inc.

Broadcom Inc.

Toshiba Corporation

Renesas Electronics Corporation

Fujitsu Limited

IXYS Corporation

Cosmo Electronics Corporation

Teledyne Relays

Solid State Optronics

Standex Electronics, Inc.

Celduc Relais

Omron Automation Pvt. Ltd.

Global MOSFET Relay Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period – 2025–2035

Report Coverage – Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Regional Scope – North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope – Free report customization (equivalent up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial aspects, such as driving factors and challenges, which will define the future growth of the market. Additionally, it incorporates potential opportunities in micro-markets for stakeholders to invest, along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segments of the

market are explained below:

By Voltage:

Below 200V

200–500V

500–1kV

1–7.5kV

7.5–10kV

Above 10kV

By Application:

Industrial

Household Appliances

Test & Measurements

Mining

Automotive

Medical

Renewables

Charging Stations

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Middle East & Africa

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

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