

# **Surge Protection Devices Market Forecasts to 2032 – Global Analysis By Product Type (Hard-wired SPDs, Plug-in SPDs, Line Cord SPDs, Power Strip SPDs and Other Product Types), Type, Nominal Discharge Current, Voltage Class, Installation, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Surge Protection Devices Market is accounted for \$2.95 billion in 2025 and is expected to reach \$4.49 billion by 2032 growing at a CAGR of 6.2% during the forecast period. Surge Protection Device (SPD) is an electrical safety component designed to shield systems from transient overvoltage events, such as lightning strikes or power grid fluctuations. Installed parallel to the load, it detects sudden voltage spikes and redirects excess energy safely to the ground, preventing damage to sensitive equipment. SPDs maintain high impedance under normal conditions but rapidly switch to low impedance during surges. They are essential for safeguarding industrial, commercial, and residential electrical infrastructures

Market Dynamics:

Driver:

Proliferation of sensitive electronics and digitalization

As digital infrastructure expands especially with the integration of IoT, cloud computing, and automation electronic components become more vulnerable to voltage spikes and transient surges. SPDs are essential for safeguarding sensitive equipment such as servers, control panels, and communication systems. Moreover, the rise in smart homes

and connected appliances has amplified the need for robust electrical protection. This trend is further reinforced by growing investments in data centers and digital transformation initiatives globally.

#### Restraint:

##### Presence of low-quality and counterfeit products

Surge protection devices often fail to meet international safety standards, posing risks to both equipment and user safety. Their proliferation undermines consumer trust and complicates regulatory enforcement. Manufacturers of genuine SPDs must invest heavily in quality assurance and certification processes to differentiate themselves. Additionally, the lack of stringent inspection mechanisms in some countries allows these inferior products to circulate widely, impeding the growth of reputable brands.

#### Opportunity:

##### Growing adoption of smart grid technologies

Smart grids require advanced electrical protection to ensure uninterrupted power flow and protect sensitive control systems from voltage fluctuations. Surge protection becomes critical in substations, distribution networks, and renewable energy installations such as solar farms and wind turbines. As governments and utilities modernize their energy systems, the deployment of intelligent surge protection solutions is expected to accelerate. This shift also opens doors for integrated SPD designs compatible with real-time monitoring and predictive maintenance platforms.

#### Threat:

##### Evolving technology and obsolescence

As newer, more efficient surge mitigation technologies emerge, older models may become obsolete, forcing manufacturers to continuously innovate. The pace of change in power electronics, coupled with evolving standards and compliance requirements, can strain R&D budgets and product lifecycles. Additionally, customers may delay purchases in anticipation of next-generation solutions, affecting short-term revenue streams. Companies that fail to adapt risk losing market relevance in an increasingly competitive landscape.

### Covid-19 Impact:

The COVID-19 pandemic had a dual impact on the SPD market, disrupting supply chains while simultaneously highlighting the importance of electrical reliability. Initial lockdowns and restrictions led to delays in manufacturing and component sourcing, particularly for semiconductors and metal enclosures. However, the surge in remote work and digital services increased the demand for uninterrupted power and equipment protection, boosting SPD installations in residential and commercial settings.

The hard-wired SPDs segment is expected to be the largest during the forecast period

The hard-wired SPDs segment is expected to account for the largest market share during the forecast period due to their widespread application in fixed electrical installations. These devices offer robust protection for distribution panels, industrial machinery, and commercial buildings, making them indispensable in high-load environments. Their ability to handle large surge currents and provide consistent performance under harsh conditions contributes to their popularity. Additionally, regulatory mandates for surge protection in construction and infrastructure projects further support segment growth.

The custom & integrated solutions segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the custom & integrated solutions segment is predicted to witness the highest growth rate driven by increasing demand for tailored protection systems across specialized applications. Industries such as aerospace, telecommunications, and renewable energy require unique configurations that standard SPDs cannot fulfill. Integrated solutions combine surge protection with monitoring, diagnostics, and remote control capabilities, offering enhanced value. As end-users seek scalable and application-specific protection, this segment is poised for rapid expansion.

### Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share owing to rapid urbanization, industrial growth, and infrastructure development. Countries like China, India, and South Korea are investing heavily in smart cities, renewable energy, and digital connectivity, all of which require reliable surge protection. Additionally, favorable government policies promoting electrical safety and energy

efficiency are encouraging widespread SPD deployment across residential and commercial sectors.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR reflecting it's fueled by technological innovation and stringent safety regulations. The region's advanced electrical infrastructure and high penetration of smart devices necessitate sophisticated surge protection solutions. Growth is also driven by rising investments in data centers, electric vehicle charging stations, and renewable energy projects. Moreover, increasing awareness of power quality issues and the financial impact of equipment downtime is prompting businesses to adopt premium SPD systems.

Key players in the market

Some of the key players in Surge Protection Devices Market include Schneider Electric, Eaton Corporation, ABB Ltd., Siemens AG, Legrand SA, Emerson Electric Co., General Electric, Tripp Lite, Vertiv Group Corp., Belkin International, Littelfuse Inc., Mersen Electrical Power, Raycap Corporation, Citel Inc., Hakel Ltd., Phoenix Contact, DEHN SE, NexTek Inc., Bourns Inc., and Advanced Protection Technologies.

Key Developments:

In July 2025, Schneider announced Zeigo™ Hub, a scalable platform to accelerate supply-chain decarbonization and help customers meet net-zero goals. The platform connects suppliers, buyers and emissions data to speed up emissions reductions across procurement.

In July 2025, ABB introduced a next-generation machinery drive (ACS380-E) designed for performance, connectivity and integrated cybersecurity. The drive includes dual Ethernet ports and selectable industrial protocols to ease integration into modern machine control.

In June 2025, Eaton announced a strategic acquisition agreement for Ultra PCS Limited to expand capabilities in its Aerospace segment. Eaton cited synergies with existing aerospace products and expects the deal to strengthen its product/service footprint.

Product Types Covered:

Hard-wired SPDs

Plug-in SPDs

Line Cord SPDs

Power Strip SPDs

Other Product Types

#### Types Covered:

Type 1 (Service Entrance)

Type 2 (Branch Panel)

Type 3 (Point-of-Use)

Gas Discharge Tubes (GDT)

Metal Oxide Varistors (MOV)

Silicon Avalanche Diodes (SAD)

Other Types

#### Nominal Discharge Currents Covered:

Below 10 kA

10-25 kA

Above 25 kA

#### Voltage Classes Covered:

Low Voltage (35 kV)

Medium Voltage (1–35 kV)

Installations Covered:

DIN-rail

Enclosed

Outlet type

Custom & Integrated Solutions

Other Installations

End Users Covered:

Residential

Commercial

Industrial & Manufacturing

Utilities & Power Generation

Oil & Gas

Telecom & Data Centers

Renewable Energy

EV Charging Infrastructure & E-mobility

Other End Users

## Regions Covered:

### North America

US

Canada

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

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 2024, 2025, 2026, 2028, and 2032
- 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

*Surge Protection Devices Market Forecasts to 2032 – Global Analysis By Product Type (Hard-wired SPDs, Plug-in...*

customization options:

#### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### 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

## 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 Product 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

## **5 GLOBAL SURGE PROTECTION DEVICES MARKET, BY PRODUCT TYPE**

- 5.1 Introduction
- 5.2 Hard-wired SPDs
- 5.3 Plug-in SPDs
- 5.4 Line Cord SPDs
- 5.5 Power Strip SPDs
- 5.6 Other Product Types

## **6 GLOBAL SURGE PROTECTION DEVICES MARKET, BY TYPE**

- 6.1 Introduction
- 6.2 Type 1 (Service Entrance)
- 6.3 Type 2 (Branch Panel)
- 6.4 Type 3 (Point-of-Use)
- 6.5 Gas Discharge Tubes (GDT)
- 6.6 Metal Oxide Varistors (MOV)
- 6.7 Silicon Avalanche Diodes (SAD)
- 6.8 Other Types

## **7 GLOBAL SURGE PROTECTION DEVICES MARKET, BY NOMINAL DISCHARGE CURRENT**

- 7.1 Introduction
- 7.2 Below 10 kA
- 7.3 10-25 kA
- 7.4 Above 25 kA

## **8 GLOBAL SURGE PROTECTION DEVICES MARKET, BY VOLTAGE CLASS**

- 8.1 Introduction
- 8.2 Low Voltage (35 kV)
- 8.4 Medium Voltage (1–35 kV)

## **9 GLOBAL SURGE PROTECTION DEVICES MARKET, BY INSTALLATION**

- 9.1 Introduction
- 9.2 DIN-rail
- 9.3 Enclosed

- 9.4 Outlet type
- 9.5 Custom & Integrated Solutions
- 9.6 Other Installations

## **10 GLOBAL SURGE PROTECTION DEVICES MARKET, BY END USER**

- 10.1 Introduction
- 10.2 Residential
- 10.3 Commercial
- 10.4 Industrial & Manufacturing
- 10.5 Utilities & Power Generation
- 10.6 Oil & Gas
- 10.7 Telecom & Data Centers
- 10.8 Renewable Energy
- 10.9 EV Charging Infrastructure & E-mobility
- 10.10 Other End Users

## **11 GLOBAL SURGE PROTECTION DEVICES MARKET, BY GEOGRAPHY**

- 11.1 Introduction
- 11.2 North America
  - 11.2.1 US
  - 11.2.2 Canada
  - 11.2.3 Mexico
- 11.3 Europe
  - 11.3.1 Germany
  - 11.3.2 UK
  - 11.3.3 Italy
  - 11.3.4 France
  - 11.3.5 Spain
  - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
  - 11.4.1 Japan
  - 11.4.2 China
  - 11.4.3 India
  - 11.4.4 Australia
  - 11.4.5 New Zealand
  - 11.4.6 South Korea
  - 11.4.7 Rest of Asia Pacific

- 11.5 South America
  - 11.5.1 Argentina
  - 11.5.2 Brazil
  - 11.5.3 Chile
  - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
  - 11.6.1 Saudi Arabia
  - 11.6.2 UAE
  - 11.6.3 Qatar
  - 11.6.4 South Africa
  - 11.6.5 Rest of Middle East & Africa

## **12 KEY DEVELOPMENTS**

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

## **13 COMPANY PROFILING**

- 13.1 Schneider Electric
- 13.2 Eaton Corporation
- 13.3 ABB Ltd.
- 13.4 Siemens AG
- 13.5 Legrand SA
- 13.6 Emerson Electric Co.
- 13.7 General Electric
- 13.8 Tripp Lite
- 13.9 Vertiv Group Corp.
- 13.10 Belkin International
- 13.11 Littelfuse Inc.
- 13.12 Mersen Electrical Power
- 13.13 Raycap Corporation
- 13.14 Citel Inc.
- 13.15 Hakel Ltd.
- 13.16 Phoenix Contact
- 13.17 DEHN SE

13.18 NexTek Inc.

13.19 Bourns Inc.

13.20 Advanced Protection Technologies

## List Of Tables

### LIST OF TABLES

Table 1 Global Surge Protection Devices Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Surge Protection Devices Market Outlook, By Product Type (2024-2032) (\$MN)

Table 3 Global Surge Protection Devices Market Outlook, By Hard-wired SPDs (2024-2032) (\$MN)

Table 4 Global Surge Protection Devices Market Outlook, By Plug-in SPDs (2024-2032) (\$MN)

Table 5 Global Surge Protection Devices Market Outlook, By Line Cord SPDs (2024-2032) (\$MN)

Table 6 Global Surge Protection Devices Market Outlook, By Power Strip SPDs (2024-2032) (\$MN)

Table 7 Global Surge Protection Devices Market Outlook, By Other Product Types (2024-2032) (\$MN)

Table 8 Global Surge Protection Devices Market Outlook, By Type (2024-2032) (\$MN)

Table 9 Global Surge Protection Devices Market Outlook, By Type 1 (Service Entrance) (2024-2032) (\$MN)

Table 10 Global Surge Protection Devices Market Outlook, By Type 2 (Branch Panel) (2024-2032) (\$MN)

Table 11 Global Surge Protection Devices Market Outlook, By Type 3 (Point-of-Use) (2024-2032) (\$MN)

Table 12 Global Surge Protection Devices Market Outlook, By Gas Discharge Tubes (GDT) (2024-2032) (\$MN)

Table 13 Global Surge Protection Devices Market Outlook, By Metal Oxide Varistors (MOV) (2024-2032) (\$MN)

Table 14 Global Surge Protection Devices Market Outlook, By Silicon Avalanche Diodes (SAD) (2024-2032) (\$MN)

Table 15 Global Surge Protection Devices Market Outlook, By Other Types (2024-2032) (\$MN)

Table 16 Global Surge Protection Devices Market Outlook, By Nominal Discharge Current (2024-2032) (\$MN)

Table 17 Global Surge Protection Devices Market Outlook, By Below 10 kA (2024-2032) (\$MN)

Table 18 Global Surge Protection Devices Market Outlook, By 10-25 kA (2024-2032) (\$MN)

- Table 19 Global Surge Protection Devices Market Outlook, By Above 25 kA (2024-2032) (\$MN)
- Table 20 Global Surge Protection Devices Market Outlook, By Voltage Class (2024-2032) (\$MN)
- Table 21 Global Surge Protection Devices Market Outlook, By Low Voltage (35 kV) (2024-2032) (\$MN)
- Table 23 Global Surge Protection Devices Market Outlook, By Medium Voltage (1–35 kV) (2024-2032) (\$MN)
- Table 24 Global Surge Protection Devices Market Outlook, By Installation (2024-2032) (\$MN)
- Table 25 Global Surge Protection Devices Market Outlook, By DIN-rail (2024-2032) (\$MN)
- Table 26 Global Surge Protection Devices Market Outlook, By Enclosed (2024-2032) (\$MN)
- Table 27 Global Surge Protection Devices Market Outlook, By Outlet type (2024-2032) (\$MN)
- Table 28 Global Surge Protection Devices Market Outlook, By Custom & Integrated Solutions (2024-2032) (\$MN)
- Table 29 Global Surge Protection Devices Market Outlook, By Other Installations (2024-2032) (\$MN)
- Table 30 Global Surge Protection Devices Market Outlook, By End User (2024-2032) (\$MN)
- Table 31 Global Surge Protection Devices Market Outlook, By Residential (2024-2032) (\$MN)
- Table 32 Global Surge Protection Devices Market Outlook, By Commercial (2024-2032) (\$MN)
- Table 33 Global Surge Protection Devices Market Outlook, By Industrial & Manufacturing (2024-2032) (\$MN)
- Table 34 Global Surge Protection Devices Market Outlook, By Utilities & Power Generation (2024-2032) (\$MN)
- Table 35 Global Surge Protection Devices Market Outlook, By Oil & Gas (2024-2032) (\$MN)
- Table 36 Global Surge Protection Devices Market Outlook, By Telecom & Data Centers (2024-2032) (\$MN)
- Table 37 Global Surge Protection Devices Market Outlook, By Renewable Energy (2024-2032) (\$MN)
- Table 38 Global Surge Protection Devices Market Outlook, By EV Charging Infrastructure & E-mobility (2024-2032) (\$MN)
- Table 39 Global Surge Protection Devices Market Outlook, By Other End Users

(2024-2032) (\$MN)

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

## I would like to order

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