

Surge Protection Device 230V SPD / Single Phase SPD

Three-stage SPD-230V surge protection device providing heavy-duty protection against power surges, transient voltage spikes, and line disturbances with three coordinated stages of suppression. Housed in a DIN rail panel mount enclosure with protective earth connection.



Key Features

- Three-stage surge protection across L-N, L-PE, and N-PE paths
- High-energy MOV and fast-clamping TVS transient suppression
- Compatible with 230V AC single-phase and up to 310V DC systems
- Protects automation controllers, HMIs, and power supplies from line surges
- Ultra-fast response time (< 25 ns)
- Standard 35 mm DIN rail mountable enclosure with dedicated PE earth terminal
- Dimensions: 60 mm × 50 mm × 20 mm

Ordering Information

Product Code	Description
SPD-230V-AC	Surge Protection Device 230V SPD / Single Phase SPD
SPD-24V-DC	Surge Protection Device 24V DC SPD
SPD-RS485	Surge Protection Device RS485
SPD-ETH-RJ45	Ethernet Surge Protection Device
SPD-20mA	4-20mA Surge Protection Device SPD 4 to 20mA

Applications

- **Industrial Automation & Process Control:** Reliable signal interfacing and device connectivity across automated production lines.
- **SCADA & PLC Integration:** Seamless communication between field instrumentation and control systems.
- **Control Panel Building:** Compact 35 mm DIN rail mounting for clean and space-efficient cabinet wiring.
- **OEM Equipment & Diagnostics:** Robust electrical protection and standard industrial ratings.

Specifications

Parameter	Value
Mounting Type	35 mm DIN Rail Mounting
Dimensions	60 mm x 50 mm x 20 mm (L x W x H)
Enclosure Material	Industrial ABS plastic
Operating Temperature	−10 °C to +60 °C
Storage Temperature	−40 °C to +85 °C
Relative Humidity	5% to 95% RH (non-condensing)

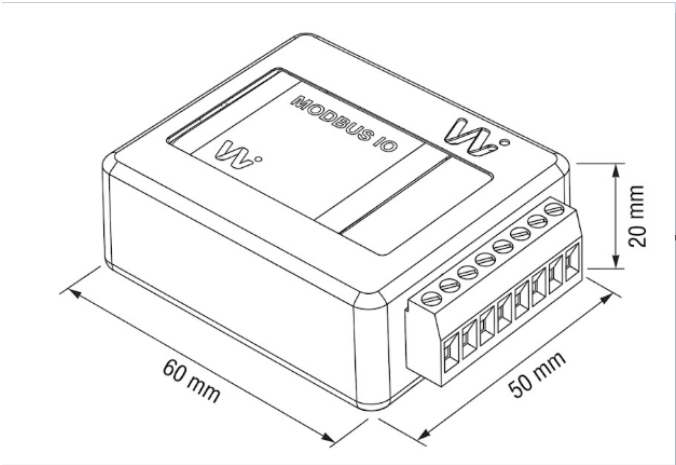
Electrical Specifications

Parameter	Specification
Operating Voltage	230V AC, 310V DC
Max Discharge Current (Imax)	10 kA (8/20 μs impulse)
Response Time (tA)	< 1 ns (TVS) / < 25 ns (GDT)
Protection Technology	Multi-stage Hybrid (GDT + TVS Clamping)

Isolation & Protection Specifications

Parameter	Value	Standard / Notes
Voltage Clamping Level	Low Clamping	High-efficiency multi-stage surge attenuation
Surge Standard	IEC 61643-21 / IEC 61000-4-5	Class-compliant industrial transient immunity
Grounding Interface	Integrated PE Terminal	Low-impedance earth DIN rail connection

Mechanical Dimensions



Terminal Details & Wiring

Terminal Connections

Terminal Block	Pin	Label	Function	Description
Line In (Un-protected)	1	L_IN	AC Line In	Unprotected 230V AC Phase / Line wire input
(Bottom Block)	2	N_IN	AC Neutral In	Unprotected 230V AC Neutral wire input
Line Out (Protected)	3	L_OUT	AC Line Out	Protected clean 230V AC Phase to control equipment
(Top Block)	4	N_OUT	AC Neutral Out	Protected clean 230V AC Neutral to control equipment
Ground Terminal	PE	PE	Earth Ground	Dedicated low-impedance protective earth terminal and DIN clip

Revision History

Revision	Date	Description of Change
Rev 1.0	2026-09-09	Initial datasheet release

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Support

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