

PRODUCT CATALOGUE



SURGE **PROTECTION** DEVICE

OK REPLACE

: 320V

: 20kA Imax : 40kA

: ≤1.5 kV

SURCE PROTECTION SURGE PROTECTION DEVICE

IP 20 CE L-N IP 20 CE L-N

JMV/B+C/INPE

Uc : 320V

In : 20kA

Imax : 40kA : ≤1.5 kV





INTRODUCTION

JMV LPS Ltd., established in 2008, is a leading provider of optimized Lightning Protection and Earthing Solutions. Renowned for our expertise in safeguarding critical infrastructure, we specialize in tailored solutions that ensure unparalleled safety and reliability across diverse industries.

Key Strengths



Complimentary Software Consultations

Leveraging CDEGS and ETAP, our consultations optimize lightning protection and earthing systems for maximum efficiency and performance.



Custom and Validated Design Solutions

From concept to execution, our solutions adhere to rigorous national and international standards, ensuring customized manufacturing and superior quality.



Technical and Design Support

Our dedicated team offers round-the-clock technical assistance, ensuring operational reliability and peace of mind.

At JMV LPS Ltd., innovation drives our commitment to delivering cutting-edge solutions that protect your investments against natural uncertainties.

Clientele



























































and many more......





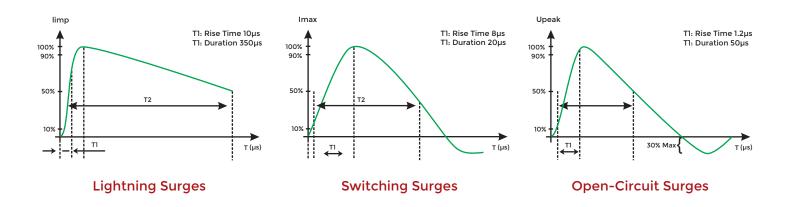


What is a Surge?

A **Power Surge/Transient** is nothing but a sudden increase of voltage that significantly exceeds the voltage flow of power that normally enters our home or buildings. These surges can be small or large, resulting in the reduced performance or possibly damaging the plugged-in devices.

Over-Voltages/Surges Are Of Two Types:

- Steady state: Having a waveform duration in seconds for which Protection Devices like Fuses, MCB, RCCB etc. are used.
- Transients: Having a waveform in Nano-seconds & Micro-seconds for which Class B, Class C and Class D Surge Protection Devices



What Are The Causes Of Surges?

20%-40% Surges/Transient Generated EXTERNALLY (Lightning / Other External Factors) 60%-80% Surges/Transient Generated INTERNALLY Within The Facility

Direct Lightning

- Lightning on HT Line
- Lightning on building
- Lightning on LT

Switching Activities (ON-OFF)

- Start motors or transformers
- Switching Power Networks
- Lifts, AC unit, refrigerator etc.

Indirect Lightning

- Ground Potential Rise
- Electromagnetic Coupling on overhead lines

Other Miscellaneous Sources

- Faulty Wiring, utility power supply failure and electrical noise
- ESD Phenomenon



Why Surge Protection Is Essential?

Surge protection is critical to ensuring the reliability and safety of electrical systems. Surges can cause:

- Equipment Failure: Sensitive devices may suffer irreparable damage.
- Data Corruption: Important data can be lost or compromised.
- Operational Downtime: Surges can halt operations, causing financial losses.
- Fire Hazards: Extreme surges may lead to electrical fir

Surge protection devices (SPDs) help prevent such risks, ensuring uninterrupted system performance and extending the lifespan of equipment.

What Are SPDs?

Surge Protection Devices (SPDs) are specialized components designed to protect electrical systems from voltage surges. They detect sudden spikes in voltage and divert excess energy safely to the ground, reducing the risk of damage to connected equipment.

How Do SPDs Protect?

Voltage Suppression:

SPDs limit over-voltage by clamping excess voltage within safe levels.

• Energy Diversion:

They divert excess electrical energy safely to the grounding system.

• Equipment Safety:

They safeguard critical infrastructure, reducing costly downtime & extending system longevity.



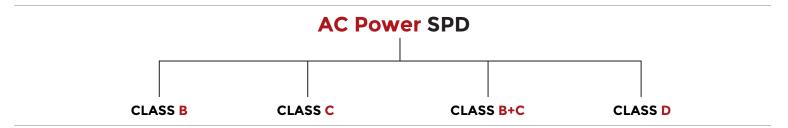
AC Power SPD

Introduction

AC Power SPDs protect electronics from damaging power surges caused by lightning, outages, and equipment malfunctions, ensuring the safety of devices like computers and home entertainment systems.

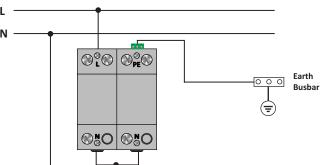
Salient Features

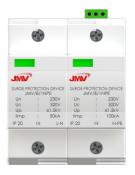
- High surge capacity & fast response
- Thermal protection against short circuit & arcing.
- Multi-stage defense for varying surges
- Complying as per IS/IEC 62305 & NBC 2016
- Tested as per IEC 61643-11



CLASS B SPD

Class B Surge Protectors (SPDs) are crucial for protecting low-voltage systems from lightning surges. Required by NBC 2016, they safely divert excess voltage to the ground using components like MOVs and GDTs.



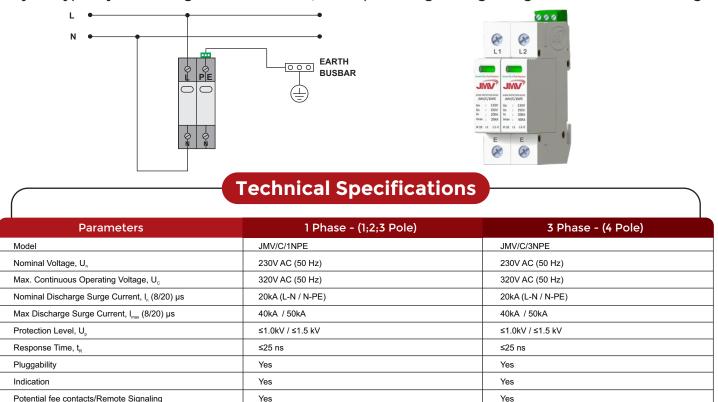


Parameters	1 Phase 2 Pole	3 Phase 4 Pole
Model	JMV/B/1NPE	JMV/B/3NPE
Nominal Voltage, U _n	230V AC (50 Hz)	230V AC (50 Hz)
Max. Continuous Operating Voltage, U _c	320V AC (50 Hz)	320V AC (50 Hz)
Impulse Lightning Test Current (10/350) μs, I _{imp}	25 kA (L-N); 50 kA (N-PE) /	25 kA (L-N); 50 kA (N-PE) /
	50 kA (L-N); 100 kA (N-PE)	50 kA (L-N); 100 kA (N-PE)
Protection Level, U _p	≤1.5 kV / ≤2.5 kV	≤1.5 kV / ≤2.5 kV
Response Time,t _R	≤ 100 ns	≤ 100 ns
Pluggability	Yes	Yes
Indication	Yes	Yes
Potential fee contacts/Remote Signaling	Yes	Yes



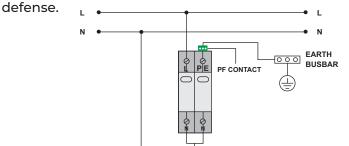
CLASS C SPD

Class C SPDs protect against internal transients and are installed at the point of use or distributionboards. They are typically used alongside Class B SPDs, which protect against lightning strikes and external surges.



CLASS B+C SPD

Class B+C SPDs protect against direct/indirect lightning strikes & switching surges. Combining Class B and C technologies, they provide multi-stage protection for low-voltage systems, ensuring reliable surge

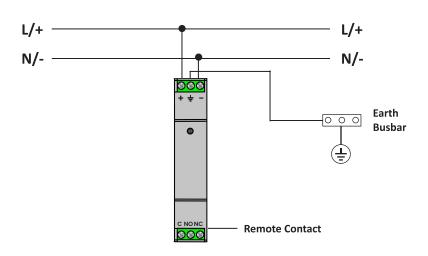




Parameters	1 Phase - (2 Pole)	3 Phase - (4 Pole)
Model	JMV/B+C/1NPE	JMV/B+C/3NPE
Nominal Voltage, U _n	230V AC (50 Hz)	230V AC (50 Hz)
Max. Continuous Operating Voltage, $\mathrm{U_c}$	320V AC (50 Hz)	320V AC (50 Hz)
Nominal Discharge Surge Current, I, (8/20) µs	20kA	20kA (L-N) / 20kA (N-PE)
Max Discharge Surge Current, I _{max} (8/20) μs	40kA / 50kA	40kA / 50kA
Impulse Lightning Test Current, $I_{\mbox{\tiny imp}}(10/350)~\mu s$	≤12.5kA / ≤15.0kA	≤12.5kA / ≤15.0kA
Protection Level, U _p	≤1.0kV / ≤1.5kV	≤1.0kV / ≤1.5kV
Response Time, $t_{\scriptscriptstyle R}$	≤25 ns (L-N) / ≤100 ns (N-PE)	≤25 ns (L-N) / ≤100 ns (N-PE)
Pluggability	Yes	Yes
Indication	Yes	Yes
Potential fee contacts/Remote Signaling	Yes	Yes

CLASS D SPD

Class D SPDs protect power and data interfaces at the terminal level using MOV and GDT combinations. Suitable for AC/DC systems, they include pluggable modules with remote monitoring contacts.





Parameters		Value					
Model	JMV/D/5V	JMV/D/12V	JMV/D/24	JMV/D/48V	JMV/D/60V	JMV/D/110V	JMV/D/230V
Nominal Voltage, U _n	5V	12V	24V	48V	60V	110V	230V
Max. Continuous Operating Voltage, U _c	7V	16V	30V	60V	75V	150V	253V
Nominal Discharge Surge Current, I _n (8/20) μs	2.5kA/5kA	2.5kA/5kA	5kA	5kA	5kA	5kA	5kA
Max Discharge Surge Current, I _{max} (8/20) μs	5kA/10kA	5kA/10kA	10kA	10kA	10kA	10kA	10kA
Protection Level, U _p	≤0.1kV	≤0.1kV	≤0.2kV	≤0.35kV	≤0.5kV	≤0.7kV	≤1.1kV
Response Time, t _R	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns	≤25ns
Pluggability	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Indication	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote Signaling	Yes	Yes	Yes	Yes	Yes	Yes	Yes



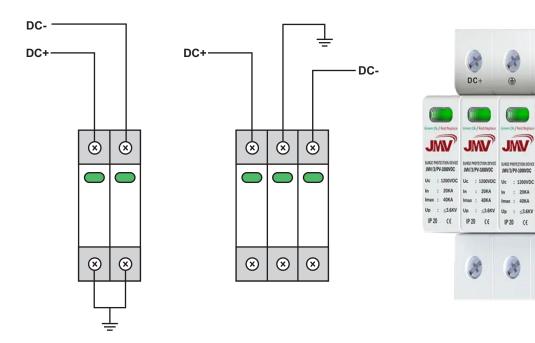
DC Power (SPD)

Introduction

DC Power SPDs, or Solar SPDs, protect Solar PV Systems from transients and surges caused by lightning and grid interconnections. Designed to handle the risks associated with large solar arrays, our SPDs extend the lifespan of solar power systems by effectively eliminating these threats.

Salient Features

- Fast response time to minimize surge impact
- Thermal disconnect to prevent overheating and fire risks
- Wide voltage range compatibility
- Complying as per IS/IEC 62305 & NBC 2016
- Tested as per IEC 61643-11



Technical Specifications Parameters 2 Pole/ 3 Pole Model JMV/2/PV-600 JMV/2/PV-800 JMV/PV-1000 JMV/PV-1200 600V DC 800V DC 1000V DC 1200V DC Nominal Voltage, U. 750V DC 1000V DC 1400V DC 1600V DC Max. Continuous Operating Voltage, Uc 20kA Nominal Discharge Surge Current, I, (8/20) µs 20kA 20kA 20kA Max Discharge Surge Current, I_{max} (8/20) μs 40kA 40kA 40kA 40kA ≤2.5kV ≤2.5kV ≤3.6kV ≤3.6kV Protection Level, U, Response Time, $t_{_{\!R}}$ ≤25 ns ≤25 ns ≤25 ns Pluggability Yes Yes Yes Yes Indication Yes Yes Yes Yes

Data SPD

Introduction

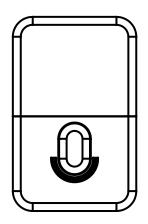
Data Surge Protection Devices (SPDs) protect sensitive data communication equipment from induced over-voltages and transients. Specifically designed for use with CAT 5 and CAT 6 cables, our RJ45 data surge protectors ensure the reliability and longevity of your LAN interfaces, modems, ISDN systems, and other critical data lines.

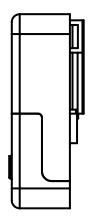
Salient Features

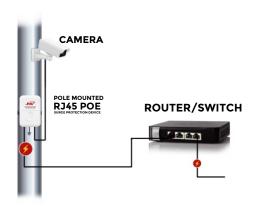
- High surge protection
- Low insertion loss for stable data transmission
- Complying as per IS/IEC 62305 & NBC 2016
- Tested as per IEC 61643-11

Pole Mounted Surge Protector

Pole Mounted Surge Protector safeguards outdoor POE and non-POE data-processing equipment with data speeds up to 1 Gb/s. Ideal for surveillance cameras, access points, and other Ethernet-equipped outdoor applications







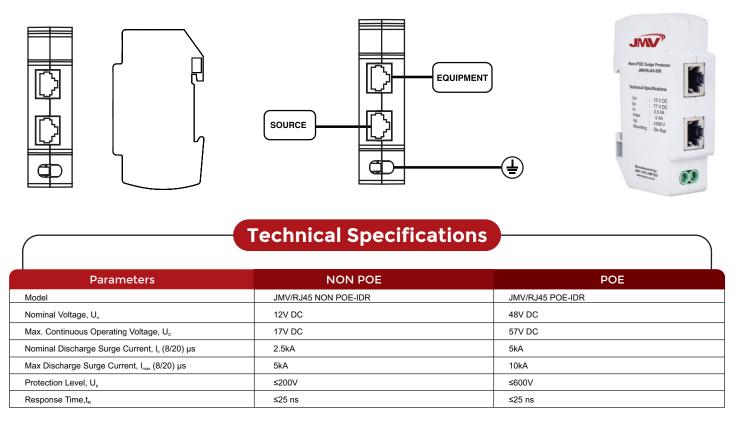


Parameters	NON POE-ODR	POE-ODR
Model	JMV/RJ45 NON POE-ODR	JMV/RJ45 POE-ODR
Nominal Voltage, U _n	12V DC	48V DC
Max. Continuous Operating Voltage, U _c	17V DC	57V DC
Nominal Discharge Surge Current, I _n (8/20) μs	2.5kA	5kA
Max Discharge Surge Current, I _{max} (8/20) μs	5kA	10kA
Protection Level, U _p	≤200V	≤600V
Response Time, $t_{\mbox{\tiny R}}$	≤25 ns	≤25 ns



RJ45 IDR DIN Rail

Pole Mounted Surge Protector safeguards indoor POE and non-POE data-processing equipment with data speeds up to 1 Gb/s. Ideal for surveillance cameras, access points, and other Ethernet-equipped outdoor applications



RJ45 Patch Panel

Nominal Discharge Surge Current, I, (8/20) µs

Max Discharge Surge Current, $I_{\text{\tiny max}}$ (8/20) μs

Protection Level, U

Response Time,t_R

Patch Panel Type SPD is designed for the communication industry to safeguard sensitive electronics and network systems from lightning transients and surges. It stabilizes sudden voltage variations instantly, ensuring reliable protection for expanded communication lines and networks.



10kA

≤600 V

≤25 ns

5kA

10kA

≤600 V

≤25 ns

5kA

10kA

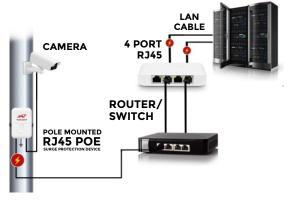
≤600 V

≤25 ns

4 Port Switch

Pole Mounted Surge Protector safeguards POE and non-POE data-processing equipment with data speeds up to 1 Gb/s. Ideal for surveillance cameras, access points, and other Ethernet-equipped outdoor applications



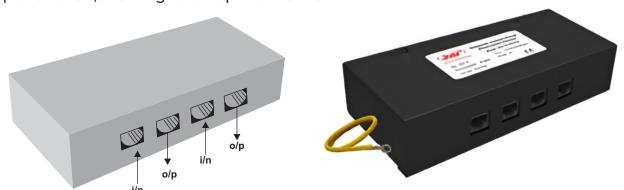


Technical Specifications

Parameters	NON POE	POE
Model	JMV/RJ45 NON POE-4PORT	JMV/RJ45 POE-4PORT
Nominal Voltage, U _n	12V DC	48V DC
Max. Continuous Operating Voltage, U _c	17V DC	57V DC
Nominal Discharge Surge Current, I _n (8/20) μs	2.5kA	5kA
Max Discharge Surge Current, I _{max} (8/20) μs	5kA	10kA
Protection Level, U _p	≤200V	≤600V
Response Time,t _R	≤25 ns	≤25 ns

Network Switch Surge Protector

The JMV/RJ45/4P is a Power-over-Ethernet surge protection device designed to ensure secure data transmission. It protects Ethernet cables, maintains stable connections, and prevents link failures. Ideal for safeguarding against switching electromagnetic pulses, it effectively handles higher power levels, ensuring reliable performance.

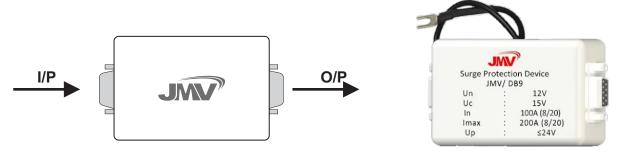


Parameters	Value			
Model Number	JMV/RJ45/4P	JMV/RJ45/4P	JMV/RJ45/4P	
Nominal Voltage, Uո	12V DC	24V DC	48V DC	
Max. Continuous Operating Voltage, U _c	16V DC	33V DC	57V DC	
Nominal Discharge Surge Current, I, (8/20) µs	5kA	5kA	5kA	
Max Discharge Surge Current, I _{max} (8/20) μs	10kA	10kA	10kA	
Protection Level, U _p	< 600V	< 600V	< 600V	
Response Time t _R	≤25ns	≤25ns	≤25ns	



DB9/15/25 Signal Surge Arrestors

DB9/15/25 Signal Surge Arrestors are protective devices designed to safeguard computers and associated equipment from electrical surges. Installed between data cables and input/output ports, they effectively neutralize surges entering through connection lines, ensuring the protection and longevity of sensitive components.

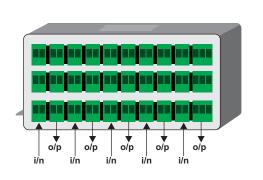


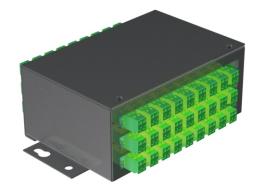
Technical Specifications

Parameters	Value	Value	Value
Model Number	JMV-DB9	JMV-DB15	JMV-DB25
Nominal Voltage, U _n	12V/ 24V	12V/ 24V	12V/ 24V
Max. Continuous Operating Voltage, U _c	16V/ 33V	16V/ 33V	16V/ 33V
Nominal Discharge Surge Current, I, (8/20) µs	2.5kA	2.5kA	2.5kA
Max Discharge Surge Current, I _{max} (8/20) μs	5kA	5kA	5kA
Protection Level, U _p	≤50 V	≤50 V	≤50 V
Response Time,t _R	≤25 ns	≤25 ns	≤25 ns

JMV-MDF

MDF surge protector enables easy installation while safeguarding analog and digital high-speed telecom networks without modifying wiring. It ensures stable energy flow, protecting sensitive electronic circuits, especially chip-based devices. Additionally, it offers robust protection for industrial networks, IT systems, and data transmission infrastructure against power surges.

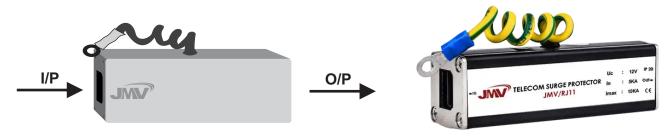




Parameters	Value	Value	Value
Model Number	JMV-MDF	JMV-MDF	JMV-MDF
Nominal Voltage, U _n	5V DC	12V DC	24V DC
Max. Continuous Operating Voltage, U _c	8V DC	16V DC	33V DC
Nominal Discharge Surge Current, I, (8/20) µs	5 kA	5kA	5kA
Max Discharge Surge Current, I _{max} (8/20) µs	10 kA	10kA	10kA
Protection Level, U _p	≤0.4 kV	≤0.4 kV	≤0.4 kV
Response Time,t _R	≤25 ns	≤25 ns	≤25 ns

RJ11 Surge Protectors

RJ11 Surge Protectors provide high-efficiency protection for DDN, fax, and telephone lines, ensuring uninterrupted communication. Ideal for industrial and IT applications, they safeguard analog ports, digital MUX, LAN extenders, modems, and more.

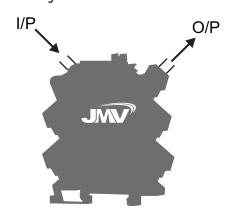


Technical Specifications

	Value			
Model	JMV/RLY/RJ11	JMV/RLY/RJ11	JMV/RLY/RJ11	JMV/RLY/RJ11
Nominal Voltage, U _n	24V	48V	60V	110V
Max. Continuous Operating Voltage, U _c	33V	60V	75V	150V
Nominal Discharge Surge Current, I _n (8/20) μs	5kA	5kA	5kA	5kA
Max Discharge Surge Current, I _{max} (8/20) μs	10kA	10kA	10kA	10kA
Protection Level, U _p	≤200V	≤350V	≤500V	≤700V
Response Time, t _R	≤25 ns	≤25 ns	≤25 ns	≤25 ns

Terminal Block Surge Protector

The JMV/TB12/1PS offers surge protection for single-wired interfaces at LPZ 1-2 and higher boundaries. This compact terminal block secures data, signaling networks, and communication interfaces with easy installation.



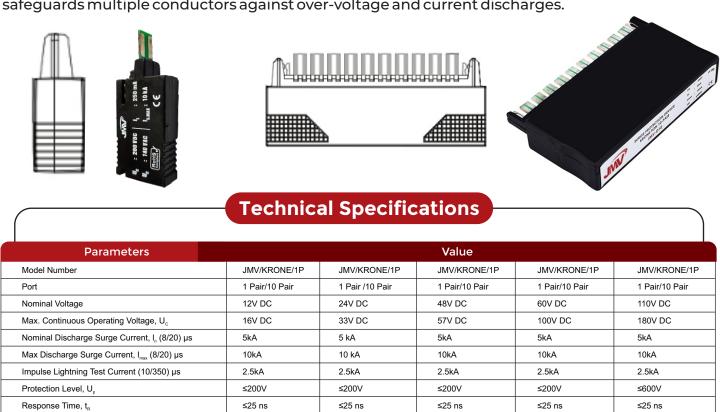


Parameters	Value					
Model Number	JMV/TB5VDC/1PS	JMV/TB7VDC/1PS	JMV/TB9VDC/1PS	JMV/TB12VDC/1PS	JMV/TB24VDC/1PS	
Nominal Voltage, U _n	5V DC	7V DC	9V DC	12V DC	24V DC	
Max. Continuous Operating Voltage, $\ensuremath{\text{U}_{\text{c}}}$	7V DC	9V DC	12V DC	13V DC	33V DC	
Nominal Current	10A	10A	10A	10A	10A	
Nominal Discharge Surge Current, I, (8/20) μs	2.5kA	2.5kA	2.5kA	2.5kA	2.5kA	
Max Discharge Surge Current, I _{max} (8/20) μs	5kA	5 kA	5kA	5 kA	5kA	
Protection Level, U _p	≤50V	≤50V	≤50V	≤50V	≤50V	
Response Time, $t_{\scriptscriptstyle R}$	≤100 ns	≤100 ns	≤100 ns	≤100 ns	≤100 ns	



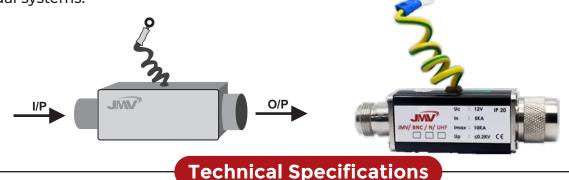
KRONE LSA Plus Surge Protectors

LSA Plus Surge Protectors are designed for telecommunication systems, providing reliable protection for switching and transmission. They integrate with MDF using Krone disconnection modules and offer flexible, plug-in protection for terminal equipment. The terminal SPD safeguards multiple conductors against over-voltage and current discharges.



Co-Axial RF Type SPD

Co-Axial RF Type (SPD) play a critical role in safeguarding sensitive electronic equipment from voltage surges in the VHF/UHF range. VHF/UHF surge protection devices ensure the reliability and longevity of VHF/UHF equipment, such as communication systems, radios, television transmitters, and radar systems.



Value **Parameters** Value Model Number JMV/BNC/N/UHF/VHF JMV/BNC/N/UHF/VHF JMV/BNC/N/UHF/VHF JMV/BNC/N/UHF/VHF JMV/BNC/N/UHF/VHF Nominal Voltage, U, 24 V 48 V 60 V 110 V Max. Continuous Operating Voltage, U. 13 V 33 V 75 V 180 V Nominal Discharge Surge Current, In (8/20) µs 5 kA 5 kA 5 kA 5 kA 5 kA Max Discharge Surge Current, I_{max} (8/20) µs 10 kA 10 kA 10 kA 10 kA 10 kA Protection Level, Up ≤200 V ≤200 V ≤600 V ≤600 V ≤600 V

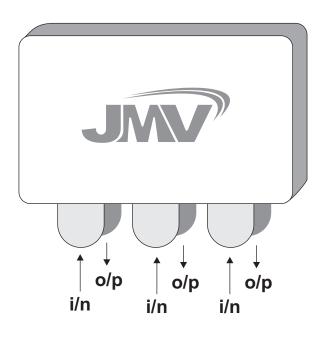
Load Cell (SPD)

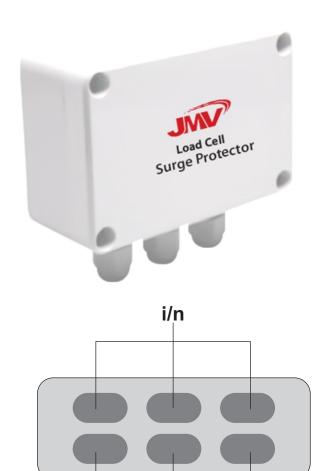
Introduction

The Load Cell Surge Protection Device (SPD) safeguards tension cells and weighing systems from harmful electrical surges and transients. It ensures reliable operation of load cells, critical in high-speed filling and precise weighing applications, making it an essential protection solution.

Salient Features

- IEC 61643-21 compliant
- Voltage range: 12V-24V
- Works with AC and DC power sources
- Accurate surge detection with strain sensors
- Durable in harsh industrial environments





o/p

Parameters			Value		
Model	JMV/LC	JMV/LC	JMV/LC	JMV/LC	JMV/LC
Nominal Voltage, U _n	12V	24V	48V	60V	110V
Max. Continuous Operating Voltage, U _c	16V	33V	57V	100V	180V
Nominal Discharge Surge Current, I _n (8/20) μs	10kA	10kA	10kA	10kA	10kA
Impulse Lightning Test Current	5kA	5kA	5kA	5kA	5kA
Protection Level, U _p	≤600V	≤600V	≤600V	≤600V	≤600V



Isolation Spark Gap

Introduction

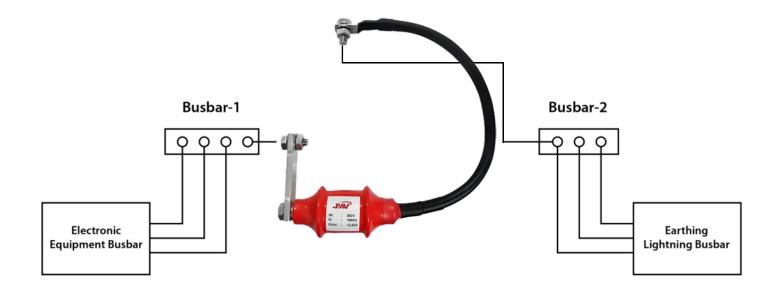
The Isolation Spark Gap is a key component in surge protection systems, particularly in the oil and gas industry. Designed to protect against lightning and switching surges.

Salient Features

- IEC 62561-3 compliant
- Tolerates over 95% relative humidity
- Prevents pipeline corrosion
- Built for harsh industrial conditions

Empower & Safety with Isolation Spark Gap: An Indirect Bonding Shield:

The Isolation Spark Gap serves as an equipotential bonding device by establishing an indirect bonding network between two different earth grids to control the electrical connectivity between them. This equipotential bonding network is formed by electrically separating two or more conductive parts of a system. When the grid potential rises from lightning surges, the ISG creates a low-impedance path for safe dissipation of surges, ensuring stability and reducing electrical hazards.



Techn	nical Specifications	
Parameters	Value	
Model	JMV/ISG-100	
Max. Continuous Operating Voltage, U_{c}	250V	
Nominal Discharge Surge Current, I _n (8/20) µs	100kA	
Impulse Lightning Test Current (10/350) μs	100kA	
Class	Н	

Applications of Isolation Spark Gap (ISG)

Oil & Gas:

ISGs protect pipelines, refineries, and offshore platforms from lightning surges, preventing equipment damage and corrosion. They isolate sections of pipelines, ensuring smooth operation by diverting electrical surges and maintaining structural integrity.

Railways:

ISGs safeguard railway signalling, electrified tracks, and trackside equipment from lightning-induced surges, preventing electrical faults and ensuring the safe, uninterrupted operation of trains, especially during thunderstorms.

Power Transmission & Distribution:

In power substations, transformers, and transmission lines, ISGs protect critical components from lightning surges, maintaining grid stability, preventing outages, and reducing the risk of equipment failure.

Industrial Sectors:

ISGs are used in manufacturing plants, chemical facilities, and refineries to protect machinery and electrical systems from lightning surges. This reduces downtime and prevents damage, ensuring safe and efficient operations in hazardous environments.

Defence & Military:

ISGs shield military infrastructure, including radar systems, communication networks, and weapons systems, from lightning surges, ensuring operational continuity and protecting vital equipment in critical defence environments.

Airports:

In airports, ISGs protect runway lighting, air traffic control systems, and grounding systems from lightning strikes, ensuring safe operations and preventing disruptions during storms.



SPD Life Tester

Surge Protection Device Tester is designed for on-site testing of Surge Protection Devices (SPD). It allows to measure both the varistor voltage that can be validated from the evaluation table. Users can determine the status of these components according to the tester. This device is capable to conduct the testing on any type of SPD. It is a hand held device which is easy to use for the maintenance team to check the efficient life of installed SPD's. It allows to measure Varistor Voltages and Leakage Current of MOV, Spark Over Voltage of GDT and Clamp Voltage of TVS/Zener.

Reference Standard:

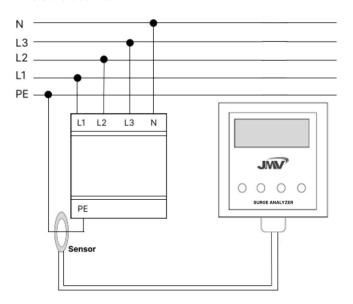
This Tester is made with reference to IEC 61643 part 11 and part 21.

- IEC 61643 "Surge Protective Devices connected to low voltage power distribution system" Part 11: Performance requirements and testing methods. Class I and II tests,
- IEC 61643 "Surge Protective Devices connected to telecommunications and signaling networks"
 Part 21:



Surge Analyser

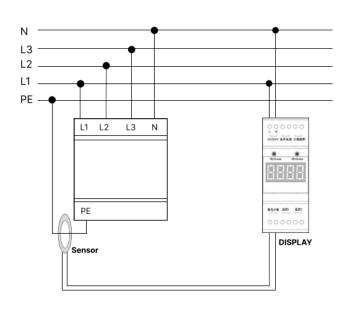
JMV Surge Analyser is an advanced device for real-time monitoring and analysis of surge events. It detects lightning and switching surge currents with an 8/20 µs waveform, ensuring the proper functioning of surge protection modules. Essential for maintaining electrical system safety and reliability, this tool provides precise data on surge events. Investing in the Surge Analyser helps detect, analyze, and mitigate electrical surges, ensuring the long-term integrity of your infrastructure.





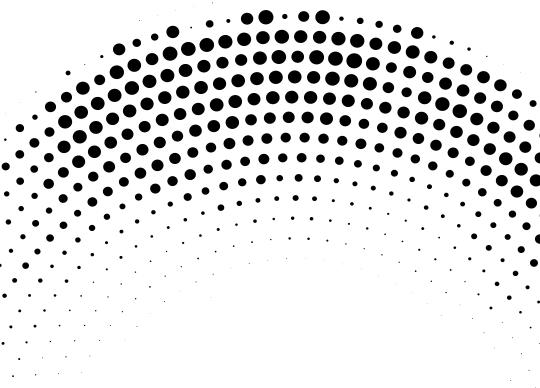
Surge Counter

JMV Surge Counter is designed to track and count the number of surges occurring during the operation of surge protection devices. It detects each surge event and displays the total count, providing a clear overview of surge activity. With the ability to count surges ranging from 0000 to 9999 digits, the Surge Counter offers an efficient way to monitor and assess the performance of surge protection systems.













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