



Solar
Green. Smart. Durable

SURGE PROTECTION DEVICE



For more information scan the QR code.

About Us

HPL is India's leading electric equipment manufacturer with a formidable presence across six key verticals: Metering Solutions, Switchgears, LED Lighting, Wire & Cables, Modular Switches & Solar.

Our backward integrated facilities have capabilities across product design and development, component designing, tool manufacturing and commercial production. An established brand with a proven track record of over four decades.

HPL enjoys strong recall across various customer segments. Through our innovative offerings, certified to conform to Indian and International standards such as ISI, CE and KEMA, we are proud to partner emerging India's electrical requirements.

HPL is well-placed to seize emerging opportunities

60+ Years of Industry Experience

7 State-of-art Manufacturing Facilities with **2** R&D Centers

19 Logistic centres in India & Union Territories

90+ Branch & Representative Offices

Strong Dealer & Distribution Network

Exporting to over **45** Countries



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ACSPD-1P-2

Pluggable Single-Pole SPD

(Class II • Type 2)

Mode of Protection: L-N, N-PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class II /Type 2

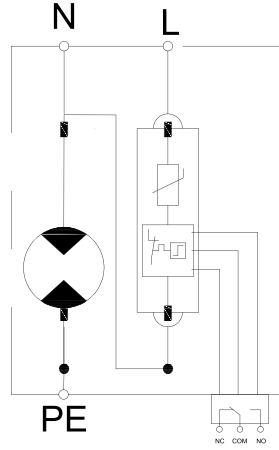
Protective Elements: High Energy MOV

Housing: Pluggable Design

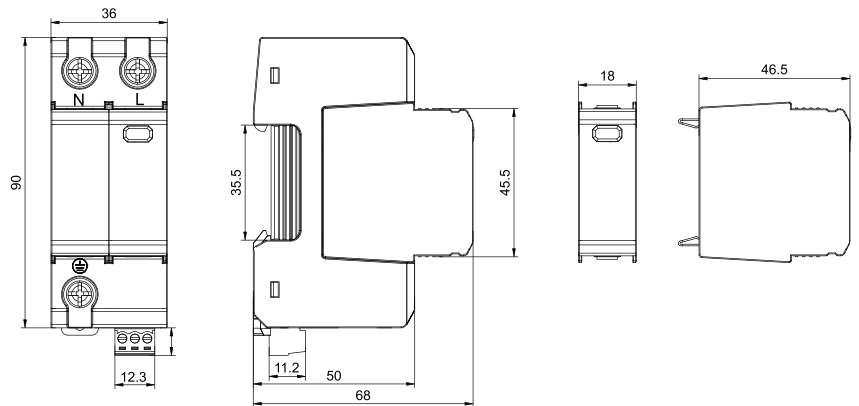
● Technical Data

Parameter		75	150	275	320	385	400
Nominal AC Voltage(50/60Hz)		60V	120V	230V	230V	230V	400V
Maximum Continuous AC Operating Voltage (L-N)	Uc	75V	150V	275V	320V	385V	440V
N-PE	Uc	255V					
Nominal Discharge Current (8/20 μs) (L-N) / (N-PE)	I_n	20kA / 20kA					
Maximum Discharge Current (8/20 μs) (L-N) / (N-PE)	I_{max}	40kA / 40kA					
Voltage Protection Level (L-N) / (N-PE)	Up	0.4kV 1.5kV	1.0kV 1.5kV	1.5kV 1.5kV	1.6kV 1.5kV	1.6kV 1.5kV	2.0kV 1.5kV
Temporary Overvoltage Withstand 200ms (L-N)	UT	115V	230V	440V	440V	440V	765V
Admissible short circute current		10000A					
Mechanical & Environmental							
Operating Temperature Range	(Ta)	-40°C to +85°C					
Permissible Operating Humidity	(RH)	5%...95%					
Mounting		DIN Rail					
Connection		Screw Terminal 2.5-25 sqmm					
Degree of Protection		IP 20 (built-in)					
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0					
Thermal Protection		Yes					
Operating State / Fault Indication		Green ok / Red defect					
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"		Optional					

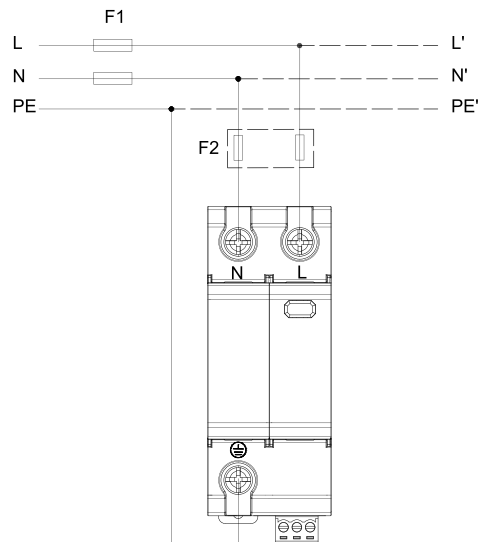
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





ACSPD-3P-2

Pluggable Multi-Pole SPD

(Class II • Type 2)

Mode of Protection: L-N, N-PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class II /Type 2

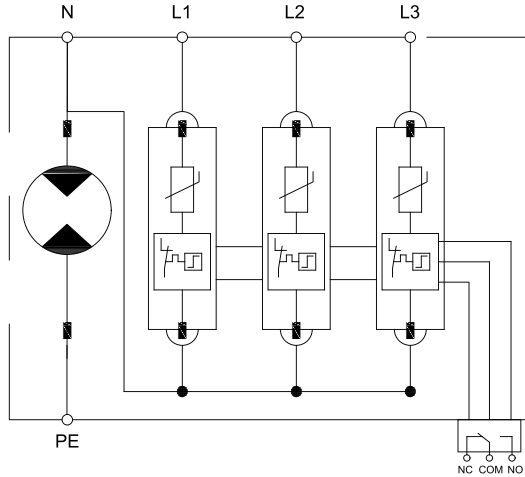
Protective Elements: High Energy MOV

Housing: Pluggable Design

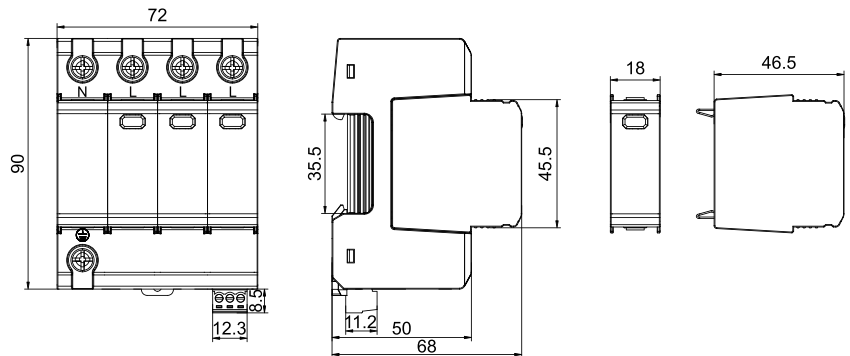
● Technical Data

Parameter		150	275	320	385	400
Nominal AC Voltage(50/60Hz)		120V	230V	230V	230V	400V
Maximum Continuous AC Operating Voltage (L-N)	U_c	150V	275V	320V	385V	440V
N-PE	U_c	255V				
Nominal Discharge Current (8/20 μs) (L-N) / (N-PE)	I_n	20kA / 20kA				
Maximum Discharge Current (8/20 μs) (L-N) / (N-PE)	I_{max}	40kA / 40kA				
Voltage Protection Level (L-N) / (N-PE)	U_p	1.0kV 1.5kV	1.5kV 1.5kV	1.6kV 1.5kV	1.6kV 1.5kV	2.0kV 1.5kV
Temporary Overvoltage Withstand 200ms (L-N)	UT	230V	440V	440V	440V	765V
Admissible short circute current		10000A				
Mechanical & Environmental						
Operating Temperature Range	(Ta)	-40°C to +85°C				
Permissible Operating Humidity	(RH)	5%...95%				
Mounting		DIN Rail				
Connection		Screw Terminal 2.5-25 sqmm				
Degree of Protection		IP 20 (built-in)				
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0				
Thermal Protection		Yes				
Operating State / Fault Indication		Green ok / Red defect				
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"		Optional				

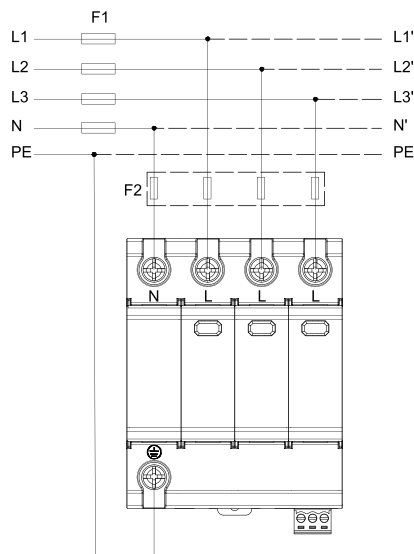
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





ACSPD-3P-1+2

Pluggable Multi-Pole SPD

(Class I+II • Type 1+2)

Mode of Protection: L-N, N-PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class I+II /Type 1+2

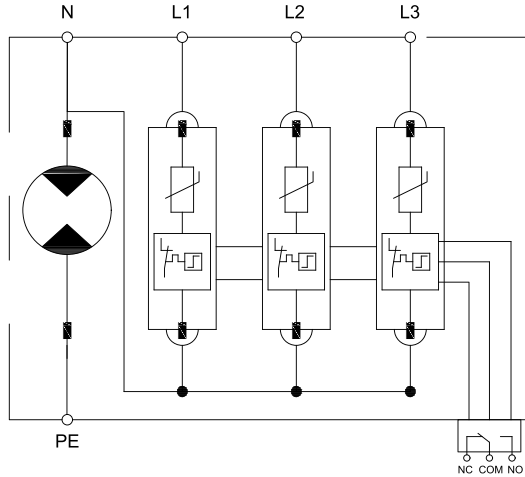
Protective Elements: High Energy MOV

Housing: Pluggable Design

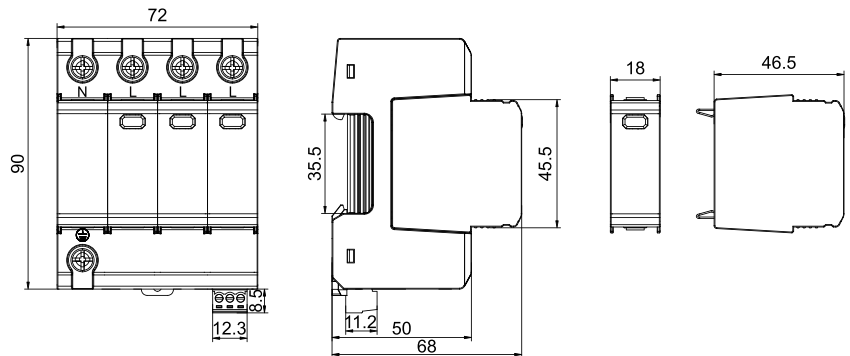
● Technical Data

Parameter		150	275	320	385	400	400
Nominal AC Voltage(50/60Hz)		120V	230V	230V	230V	400V	400V
Maximum Continuous AC Operating Voltage (L-N)	Uc	150V	275V	320V	385V	440V	440V
N-PE	Uc	255V					
Nominal Discharge Current (8/20 μs) (L-N / (N-PE))	I_n	20kA / 20kA					
Maximum Discharge Current (8/20 μs) (L-N / (N-PE))	I_{max}	40kA / 40kA					
Voltage Protection Level (L-N / (N-PE))	Up	1.0kV 1.5kV	1.0kV 1.5kV	1.6kV 1.5kV	1.8kV 1.5kV	2.0kV 1.5kV	2.0kV 1.5kV
TOV Withstand 5s (L-N)	UT	180V	335V	335V	335V	580V	580V
TOV Withstand 200ms (L-N)	UT	230V	440V	440V	440V	765V	765V
Mechanical & Environmental							
Operating Temperature Range	(Ta)	-40°C to +85°C					
Permissible Operating Humidity	(RH)	5%...95%					
Connection		Screw Terminal 4-35 sqmm					
Terminal Screw Torque	(Mmax)	39.9 lbf-in (4.5 Nm)					
Mounting		DIN Rail					
Degree of Protection		IP 20 (built-in)					
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0					
Thermal Protection		Yes					
Operating State / Fault Indication		Green ok / Red defect					
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"		Optional					

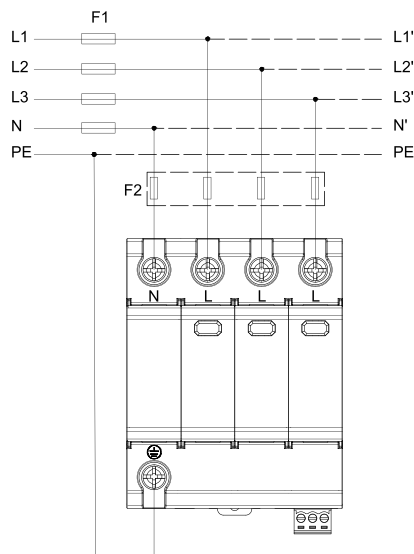
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





DCSPD-60S-2

Pluggable DC SPD

(Class II • Type 2)

Mode of Protection: (DC+)-PE; (DC-)-PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class II / Type 2

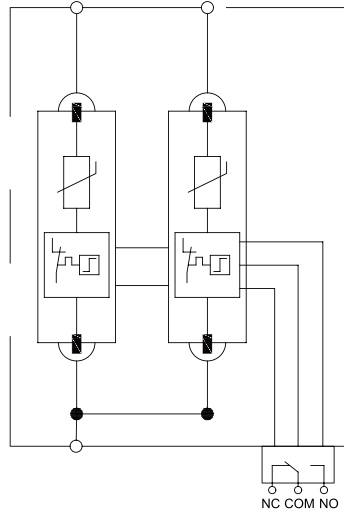
Protective Elements: High Energy MOV

Housing: Pluggable Design

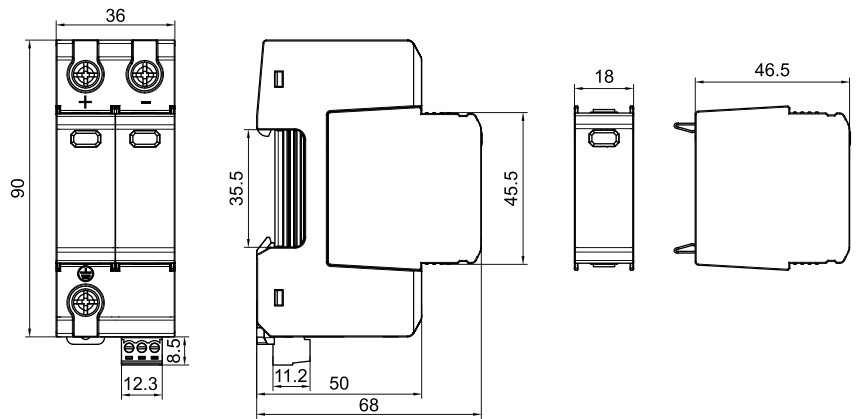
● Technical Data

Parameter	600
Nominal DC Voltage (U_n)	600V
Maximum Continuous DC Operating Voltage (U_c)	600V
Nominal Discharge Current (8/20 μs) (I_n)	20 kA
Maximum Discharge Current (8/20 μs) (I_{max})	40kA
Impulse Discharge Current (10/350 μs) (I_{imp})	12.5kA
Voltage Protection Level (U_p)	2.2kV
Response Time	< 25 ns
Mechanical & Environmental	
Operating Temperature Range (T_a)	-40°C to +85°C
Permissible Operating Humidity (RH)	5%...95%
Connection	Screw terminal for 4-25 sqmm wire
Mounting	DIN Rail
Degree of Protection	IP 20 (built-in)
Housing Material	Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection	Yes
Operating State / Fault Indication	Green ok / Red defect
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"	Optional

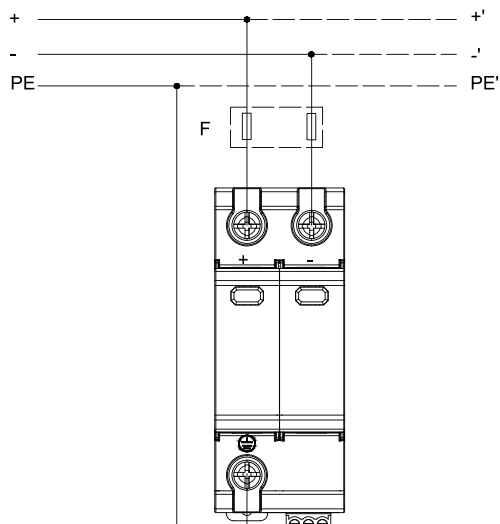
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





DCSPD-100S-2

Pluggable DC SPD

(Class II • Type 2)

Mode of Protection: (DC+) - PE, (DC-) - PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class II / Type 2

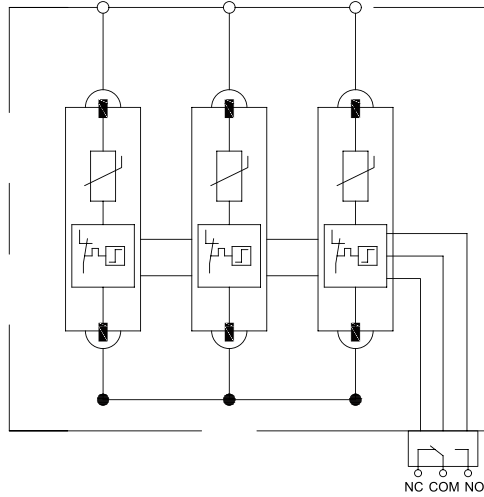
Protective Elements: High Energy MOV

Housing: Pluggable Design

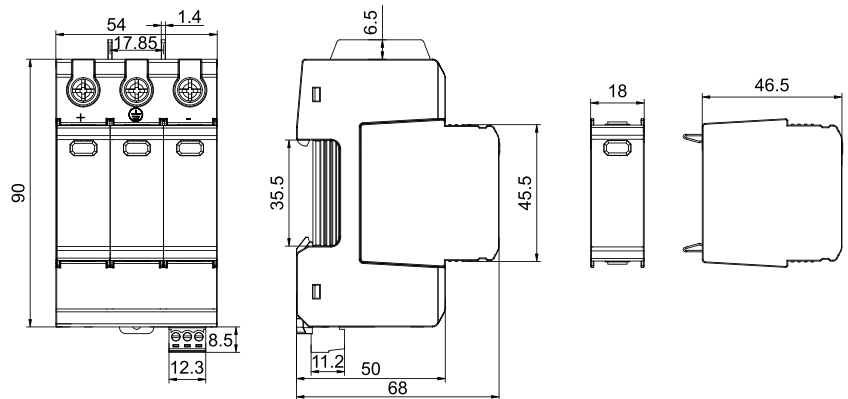
● Technical Data

Parameter	1000
Nominal DC Voltage (U_n)	1000V
Maximum Continuous DC Operating Voltage (U_c)	1000V
Nominal Discharge Current (8/20 μs) (I_n)	20 kA
Maximum Discharge Current (8/20 μs) (I_{max})	40kA
Impulse Discharge Current (10/350 μs) (I_{imp})	12.5kA
Voltage Protection Level (U_p)	3.6kV
Response Time (tA)	< 25 ns
Mechanical & Environmental	
Operating Temperature Range (T_a)	-40°C to +85°C
Permissible Operating Humidity (RH)	5%...95%
Connection	Screw terminal for 4-25 sqmm wire
Mounting	DIN Rail
Degree of Protection	IP 20 (built-in)
Housing Material	Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection	Yes
Operating State / Fault Indication	Green ok / Red defect
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"	Optional

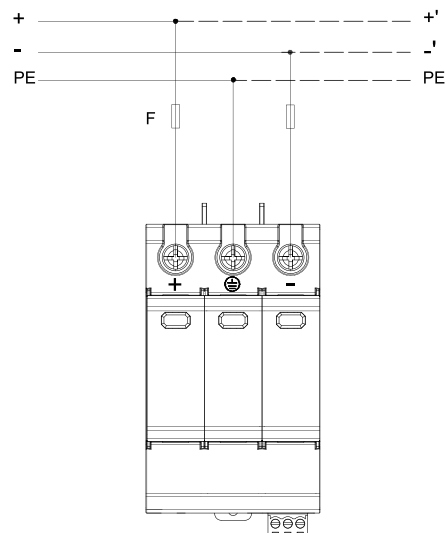
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





DCSPD-100S-1+2

Pluggable DC SPD

(Class I+II • Type 1+2)

Mode of Protection: (DC+) - PE, (DC-) - PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class I+II / Type 1 +2

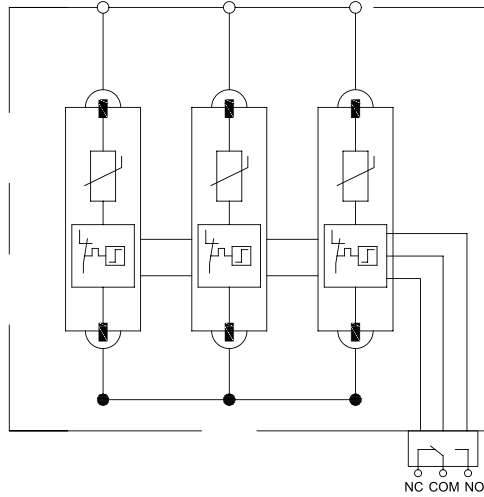
Protective Elements: High Energy MOV

Housing: Pluggable Design

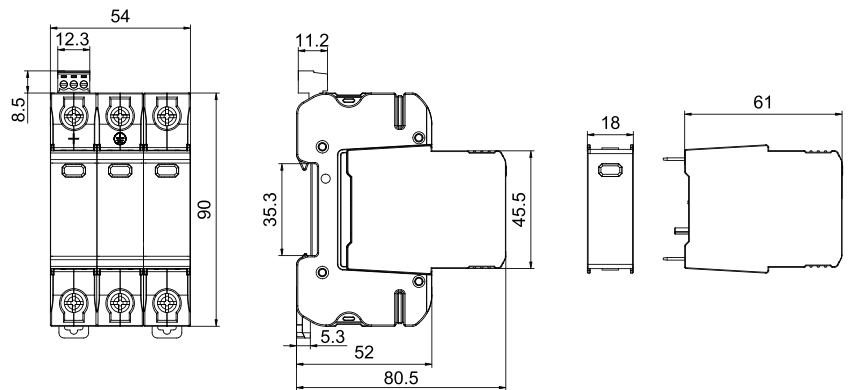
● Technical Data

Parameter	1000
Nominal DC Voltage (U_n)	1000V
Maximum Continuous DC Operating Voltage (U_c)	1000V
Nominal Discharge Current (8/20 μs) (I_n)	20 kA
Maximum Discharge Current (8/20 μs) (I_{max})	40kA
Impulse Discharge Current (10/350 μs) (I_{imp})	12.5kA
Voltage Protection Level (U_p)	4.8kV
Response Time (tA)	< 25 ns
Mechanical & Environmental	
Operating Temperature Range (T_a)	-40°C to +85°C
Permissible Operating Humidity (RH)	5%...95%
Connection	Screw terminal for 6-35 sqmm wire
Mounting	DIN Rail
Degree of Protection	IP 20 (built-in)
Housing Material	Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection	Yes
Operating State / Fault Indication	Green ok / Red defect
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"	Optional

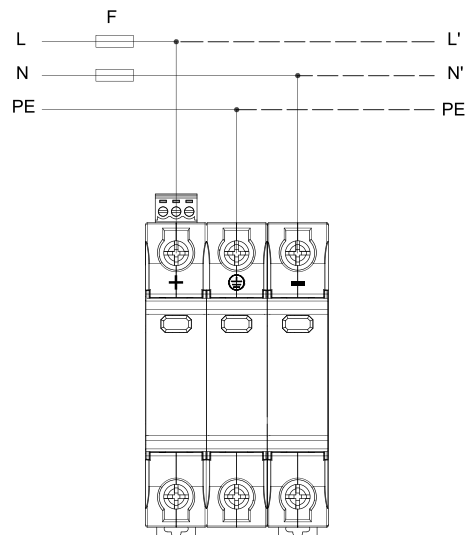
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





DCSPD-150S-2

Pluggable DC SPD

(Class II • Type 2)

Mode of Protection: (DC+) - PE, (DC-) - PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class II / Type 1+2

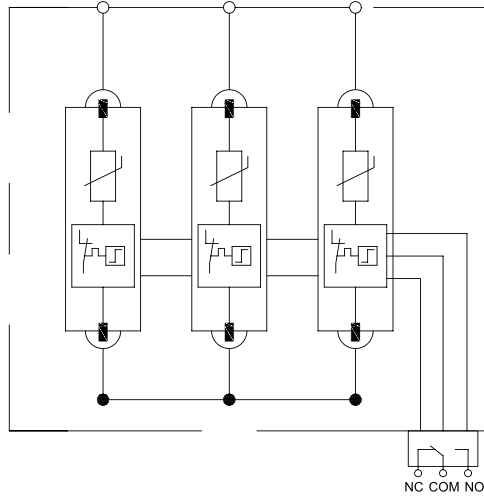
Protective Elements: High Energy MOV

Housing: Pluggable Design

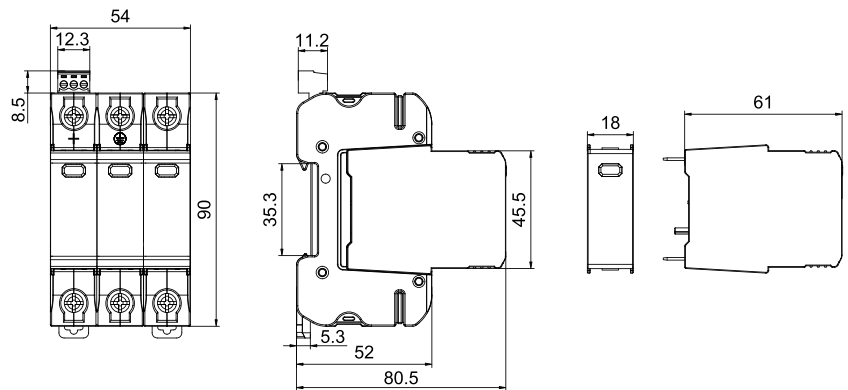
● Technical Data

Parameter	1500
Nominal DC Voltage (U_n)	1500V
Maximum Continuous DC Operating Voltage (U_c)	15000V
Nominal Discharge Current (8/20 μs) (I_n)	20 kA
Maximum Discharge Current (8/20 μs) (I_{max})	40kA
Impulse Discharge Current (10/350 μs) (I_{imp})	12kA
Voltage Protection Level (U_p)	6kV
Response Time (tA)	< 25 ns
Mechanical & Environmental	
Operating Temperature Range (T_a)	-40°C to+85°C
Permissible Operating Humidity (RH)	5%...95%
Terminal Screw Torque (Mmax)	4.5 Nm
Mounting	DIN Rail
Connection	Screw terminal for 6-35 sqmm wire
Degree of Protection	IP 20 (built-in)
Housing Material	Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection	Yes
Operating State / Fault Indication	Green ok / Red defect
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"	Optional

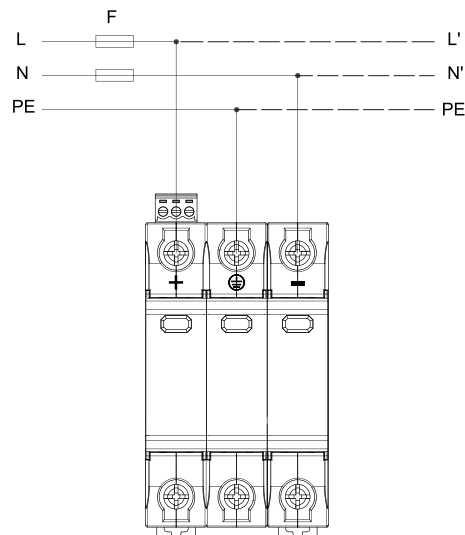
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram





DC SPD-150S-1+2

Pluggable DC SPD

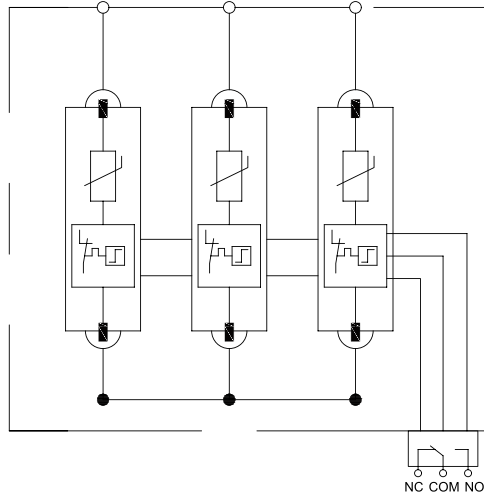
(Class I+II • Type 1+2)

Mode of Protection: (DC+) - PE, (DC-) - PE
 Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)
 Category: Class I+II / Type 1+2
 Protective Elements: High Energy MOV
 Housing: Pluggable Design

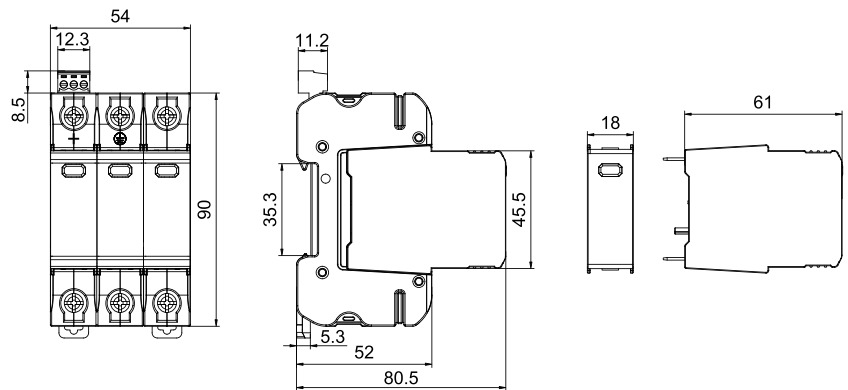
● Technical Data

Parameter	1500
Nominal DC Voltage (U_n)	1500V
Maximum Continuous DC Operating Voltage (U_c)	15000V
Nominal Discharge Current (8/20 μs) (I_n)	20 kA
Maximum Discharge Current (8/20 μs) (I_{max})	40kA
Impulse Discharge Current (10/350 μs) (I_{imp})	12kA
Voltage Protection Level (U_p)	6kV
Response Time (tA)	< 25 ns
DC-Short-Circuit Current Rating (ISCCR)	2 kA
Mechanical & Environmental	
Operating Temperature Range (T_a)	-40°C to +85°C
Permissible Operating Humidity (RH)	5%...95%
Terminal Screw Torque (Mmax)	4.5 Nm
Connection	Screw terminal for 6-35 sqmm wire
Mounting	DIN Rail
Degree of Protection	IP 20 (built-in)
Housing Material	Thermoplastic: Extinguishing Degree UL 94 V-0
Thermal Protection	Yes
Operating State / Fault Indication	Green ok / Red defect
"Remote Contacts (RC) RC Switching Capacity RC Conductor Cross Section (max)"	Optional

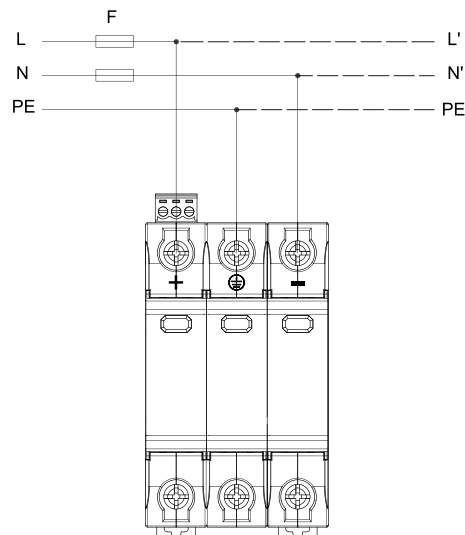
● Internal Configuration



● Dimensions & Packaging



● Connection Diagram



Data Signal / DC Surge Protective Device

Pluggable DC SPD

(Class II • Type 2)

Mode of Protection: (DC+)-PE; (DC-)-PE

Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)

Category: Class II / Type 2

Protective Elements: High Energy MOV

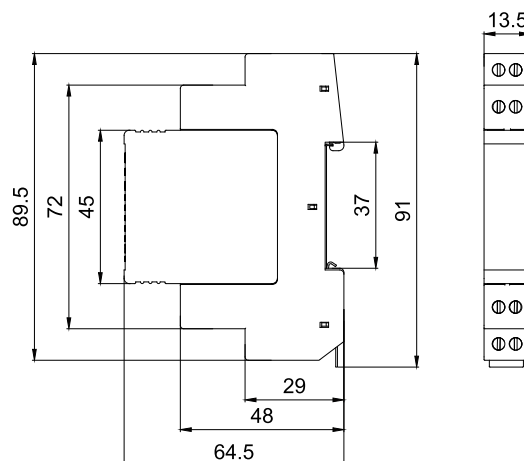
Housing: Pluggable Design



● Technical Data

Parameter	Data Signal / DC Surge SPD		
		Din rail plug in type	
Spec			
Rated operating voltage	12V	24V	48V
Max continuous operating voltage	15V	30V	60V
Rated load current		500mA	
Flow withstand capacity		10KV&5KA	
Clamping voltage ><->< (1.2/50)	60V	80 V	160V
Transmission rate		10Mbps	
Insertion loss		S0.2dB	
Interface type		Connection terminal	
Protection grade		IP20	

● Dimensions





Solar Product Range

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STRING COMBINER BOX



AC DISTRIBUTION BOX



ARRAY JUNCTION BOX



DC DISTRIBUTION BOX



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Solar Cable



Solar LED Street Light



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