



DC Surge Protector Surge Protection Device

Leading Manufacturer Protects Solar Power Safety

Rev3.0 2023/03/18



DC SURGE PROTECTOR

Surge Protection Device T2 Series



Product Application

EDP series surge protective devices have reliable voltage protection level, super surge discharge capacity and safety overload capacity, which are used for lightning protection of photovoltaic power generation system. The product is equipped with high-energy mov chip, so when the system has overvoltage due to lightning stroke or other reasons, it can introduce the voltage into the earth with nanosecond response speed, so as to protect the equipment.

Product Benefits

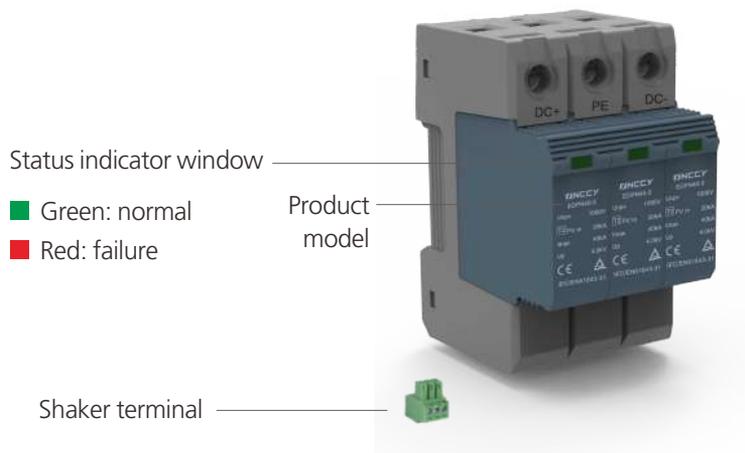
- Location of Use: String box, Inverter
- Mode of Protection: (DC+) - PE, (DC-) - PE, (DC+) - (DC-)
- Surge Ratings: $I_{\text{max}} = 20\text{kA}(8/20\mu\text{s})$
 $I_{\text{Total}} = \text{up to } 40\text{kA}(8/20\mu\text{s})$
- IEC/EN/UL Category: Class II / Type 2
- Protective Elements: High Energy MOV
- Housing: Pluggable Design
- Compliance: IEC 61643-31 EN 50539-11+ A1

Select Code



Code	Name	Description
1	brand	E
2	D	DC
3	Product Code	P: Surge Protector
4	Voltage	G:600V N:1000V F:1200V T:1500V
5	Imax	40:40kA
6	Pole	2:2P 3:3P
7	Remote signal	R: with RC Nil: with out RC

Appearance Introduction



Surge Protection Device

Technical Data



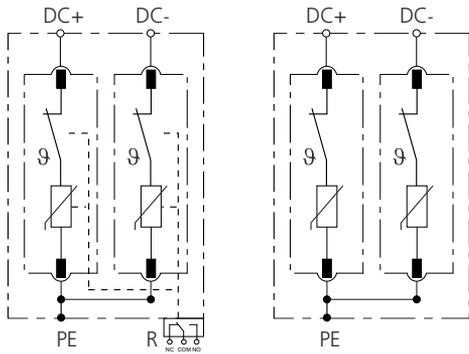
Product model	EDPG40-2 (R)	EDPN40-3 (R)	EDPF40-3 (R)	EDPT40-3 (R)
IEC Electrical				
Maximum Continuous Operating DC Voltage (DC+) - PE, (DC-) - PE	U_{CPV} 600V	1000V	1200V	1500V
(DC+) - (DC-)	U_{CPV} -	1000V	1200V	1500V
Nominal Discharge Current (8/20 μ s)	I_n 20kA			
Total Discharge Current (8/20 μ s)	I_{Total} 40kA			
Maximum Discharge Current (8/20 μ s)	I_{max} 40kA			
Voltage Protection Level (DC+) - PE, (DC-) - PE	U_p 2200V	4000V	4000V	5200V
(DC+) - (DC-)	U_p -	4000V	4000V	5200V
Response Time	t_A \leq 25ns			
Short-Circuit Current Rating	I_{SCPV} 1000A			
Number of Ports	1			
Mechanical & Environmental				
Operating Temperature Range	T_a -40°C to +80°C			
Permissible Operating Humidity	RH 5%...95%			
Atmospheric pressure and altitude	80k Pa ... 106k Pa / -500m ... 2000m			
Terminal Screw Torque	M_{max} 39.9 lbf-in [2.0~2.5 N·m]			
Conductor Cross Section (max)	2 AWG (Solid, Stranded) / 4 AWG (Flexible)			
	35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)			
Mounting	35 mm DIN Rail, EN 60715			
Degree Of Protection	IP20 (built-in)			
Housing Material	Thermoplastic, Red, Degree UL 94 V-0			
Thermal Protection	Yes			
Operating State / Fault Indication	Green: ok / Red: failure			
Remote Contacts (RC)	Optional			
RC Switching Capacity	DC:250V / 0.1A;125V / 0.2A;75V / 0.5A			
RC Conductor Cross Section (max)	16 AWG (Solid) / 1.5 mm ² (Solid)			

DC SURGE PROTECTOR

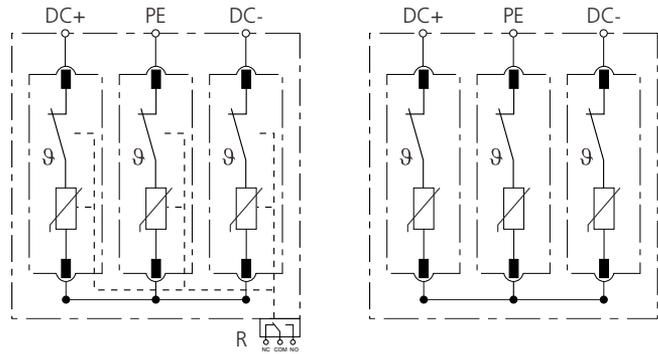
Surge Protection Device



Schematic Diagram

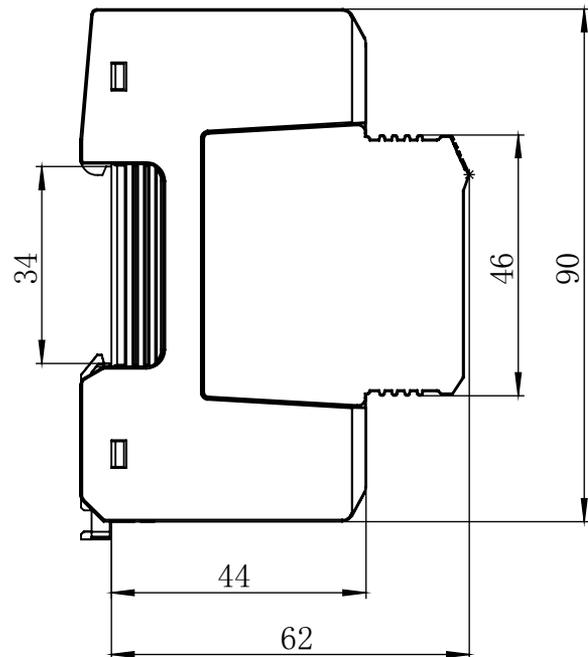
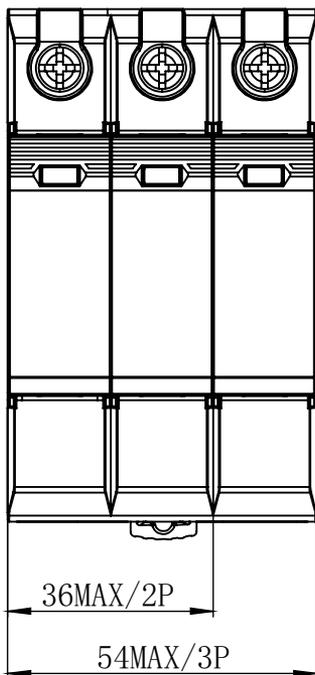


EDPG40-2 (R)



EDPN40-3 (R), EDPF40-3 (R), EDPT40-3 (R)

Drawing size



Surge Protection Device T1+T2



Product Application

EDP series surge protective devices have reliable voltage protection level, super surge discharge capacity and safety overload capacity, which are used for lightning protection of photovoltaic power generation system. The product is equipped with high-energy mov chip, so when the system has overvoltage due to lightning stroke or other reasons, it can introduce the voltage into the earth with nanosecond response speed, so as to protect the equipment.

Product Benefits

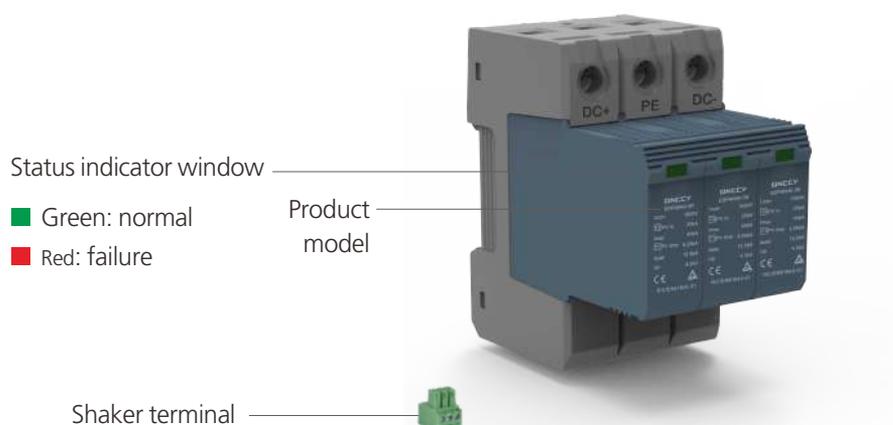
- Location of Use: String box, Inverter
- Mode of Protection: (DC+) - PE, (DC-) - PE, (DC+) - (DC-)
- Surge Ratings: I_{Total} = up to 12.5kA(10/350 μ s)
 I_{Total} = up to 40kA(8/20 μ s)
- IEC/EN/UL Category: Class I+II / Type 1+2
- Protective Elements: High Energy MOV
- Housing: Pluggable Design
- Compliance: IEC 61643-31 EN 50539-11+ A1

Select Code

E	D	P	□	□	-	□	□
1	2	3	4	5	6	7	

Code	Name	Description
1	brand	E
2	D	DC
3	Product Code	P: Surge Protector
4	Voltage	AG:600V AN:1000V AT:1500V
5	I _{max}	40: 40kA
6	Pole	2:2P 3:3P
7	Remote signal	R: with RC Nil: with out RC

Appearance Introduction



DC SURGE PROTECTOR

Surge Protection Device T1+T2

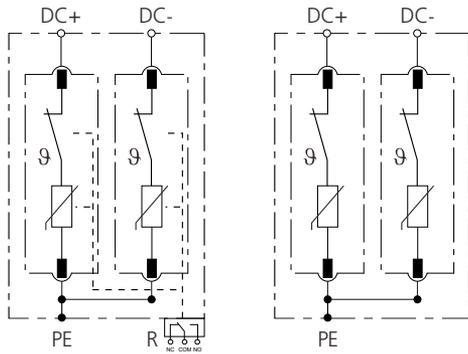
Technical Data



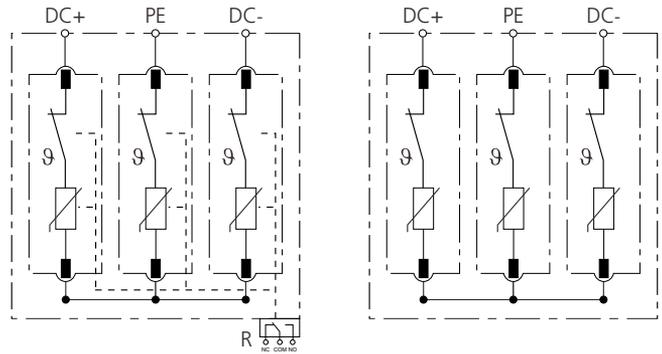
Product model	EDPAG40-2 (R)	EDPAN40-3 (R)	EDPAT40-3 (R)
IEC Electrical			
Maximum Continuous Operating DC Voltage (DC+) - PE, (DC-) - PE	U_{CPV}	600V	1000V
(DC+) - (DC-)	U_{CPV}	-	1000V
Nominal Discharge Current (8/20 μ s)	I_n	20kA	
Impulse Discharge Current (10/350 μ s)	I_{imp}	6.25kA	
Total Discharge Current (10/350 μ s)	I_{Total}	12.5kA	
Total Discharge Current (8/20 μ s)	I_{Total}	40kA	
Maximum Discharge Current (8/20 μ s)	I_{max}	40kA	
Voltage Protection Level (DC+) - PE, (DC-) - PE	U_p	2200V	4000V
(DC+) - (DC-)	U_p	-	4000V
Response Time	t_A	<25ns	
Short-Circuit Current Rating	I_{SCP}	1000A	
Number of Ports		1	
Mechanical & Environmental			
Operating Temperature Range	T_a	-40°F to +158°F [-40°C to +70°C]	
Permissible Operating Humidity	RH	5%...95%	
Atmospheric pressure and altitude		80k Pa ... 106k Pa / -500m ... 2000m	
Terminal Screw Torque	M_{max}	39.9 lbf-in [2.0~2.5 N·m]	
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)	
		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)	
Mounting		35 mm DIN Rail, EN 60715	
Degree Of Protection		IP20 (built-in)	
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0	
Thermal Protection		Yes	
Operating State / Fault Indication		Green: ok / Red: failure	
Remote Contacts (RC)		Optional	
RC Switching Capacity		AC:250V / 0.5A;DC:250V / 0.1A;125V / 0.2A;75V / 0.5A	
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)	

Surge Protection Device T1+T2

Schematic Diagram



EDPAG40-2 (R)



EDPAN40-3 (R), EDPAT40-3 (R)

Drawing size

