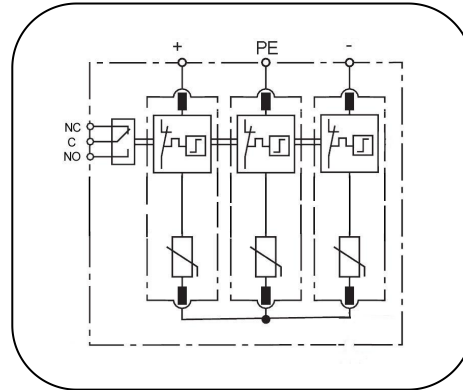


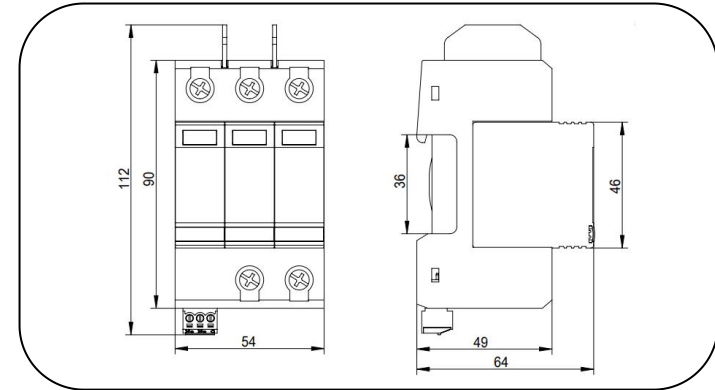
POWER SUPPLY SYSTEM

Class I&II, T1+T2, PV DC Surge Arresters

PV50...-V-CD



Basic circuit diagram



Dimension drawing

The PV50 CD is class I & class II (or T1+T2) prewired PV DC SPD designed for DC application such as PV/ Photovoltaic system dc-side protection, especially for location of high risk exposure or LPZ 0-2 building entrances (IEC 62305-4) to against the damage from direct or close lightning strikes.

With built in PROSURGE high energy MOV, PV50 CD ensures remarkable lightning current discharge capacity up to 7.5 kA 10/350 μ s and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

- TUV certified (pending) T1+ T2 PV DC SPD per IEC/EN 61643-31 standard.
- 18mm narrow model design, prewired three poles of Y circuit for common mode & differential mode protection
- Application in Photovoltaic (PV) systems and other DC power system like charging system for electric vehicles etc.
- Unique thermal disconnecter design
- Lightning current capacity up to 7.5 kA 10/350 μ s
- Surge current capability up to 50kA 8/20 μ s
- Low voltage protection level
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40° C ~85° C
- 35mm DIN-rail mounting
- Comply with EN 50539-11, UL1449 5th, IEEE C62.41, CSA C22.2 standards

Technical data

Part No.	PV50-100-V-C D(-S)	PV50-200-V-C D(-S)	PV50-300-V-C D(-S)	PV50-400-V-C D(-S)	PV50-600-V-C (-S)	PV50-800-V-C D(-S)	PV50-1000-V- CD(-S)	PV50-1200-V- CD(-S)	PV50-1500-V- CD(-S)	
In accordance with	IEC/EN 61643-31; UL1449 5 th ; EN 50539-11									
Category IEC/EU/VDE	I+ II /1+2/ B+C									
Nominal Voltage (DC) U_n	100V	200V	300V	400V	600V	800V	1000V	1200V	1500V	
Max. continuous operating voltage (DC) U_{cpv}	110V	250V	340V	450V	700V	920V	1120V	1340V	1500V	
Nominal discharge current(8/20) I_n	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	20kA	
Max. discharge current(8/20) I_{max}	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	50kA	
Lightning impulse current (10/350) I_{imp}	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	7.5kA	6kA	4.5kA	4.5kA	
Voltage protection level U_p (DC+/- to PE, DC+ to DC-)	1.0kV	1.2kV	1.5kV	2.0kV	2.5kV	2.8kV	3.5kV	4.0kV	4.5kV	
Response time t_A	≤25 ns									
Leakage Current I_{pe}	<0.1mA									
Short-circuit Current I_{scpv}	1000A									
Operating temperature range	- 40°C ~ + 85°C									
Altitude	-500m ~ +4000m									
Cross-section of connection wire (max)	Single-strand 35mm ² ; multi-strand 25mm ²									
Mounting	35mm DIN-rail in accordance with EN 50022/DIN46277-3									
Enclosure material	thermoplastic; extinguishing degree UL94 V-0									
Degree of protection	IP20									
Installation width	3 modules, DIN 43880									
Thermal disconnecter	Internal Green – normal ; red - failure									
Remote alarm contact	Optional									
Approvals, Certifications	TUV CE									
Additional data for Remote Alarm Contacts										
Remote alarm contact type	Isolated Form C									
Switching capability U_n/I_n	AC: 250V/0.5A				DC: 250V/0.1A; 125V/0.2A; 75V/0.5A					
Cross-section of remote signaling wire	Max. 1.5mm ² (or # 16AWG)									