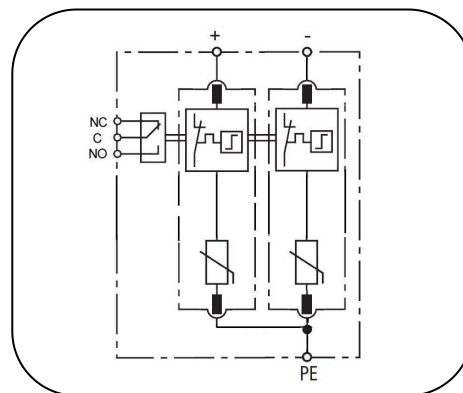
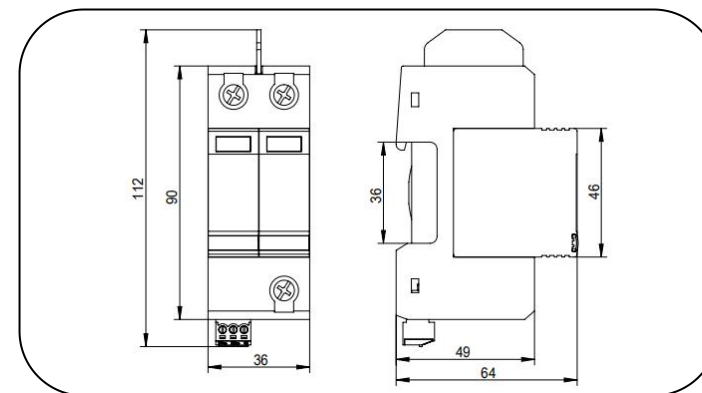


**Class I&II, T1+T2, PV DC Surge Arresters**
**PV50...-V-C**


Basic circuit diagram



Dimension drawing

The PV50 C 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 C ensures remarkable lightning current discharge capacity up to 7.5kA 10/350  $\mu$  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 two poles of V circuit for common 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 7.5kA 10/350  $\mu$  s
- Surge current capability up to 50kA 8/20  $\mu$  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 5<sup>th</sup>, IEEE C62.41, CSA C22.2 standards

**POWER SUPPLY SYSTEM**

**Technical data**

Part No.	PV50-48-V-C(-S)	PV50-75-V-C(-S)	PV50-100-V-C(-S)	PV50-150-V-C(-S)	PV50-200-V-C(-S)	PV50-300-V-C(-S)	PV50-400-V-C(-S)	PV50-500-V-C(-S)	PV50-600-V-C(-S)	
In accordance with	IEC/EN 61643-31; UL1449 5 <sup>th</sup> ; EN 50539-11									
Category IEC/EU/VDE	I+ II /1+2/ B+C									
Nominal Voltage (DC) $U_n$	48V	75V	100V	150V	200V	300V	400V	500V	600V	
Max. continuous operating voltage (DC) $U_{cpv}$	55V	100V	125V	170V	225V	350V	460V	560V	670V	
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	7.5kA	6kA	4.5kA	
Voltage protection level $U_p$	DC+/- to PE	0.6kV	0.6kV	0.7kV	0.8kV	1.0kV	1.2kV	1.5kV	2.0kV	2.2kV
	DC + to DC -	1.0kV	1.0kV	1.2kV	1.5kV	2.0kV	2.2kV	2.8kV	3.5kV	4.0kV
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 <sup>2</sup> ; multi-strand 25mm <sup>2</sup>									
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	2 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 <sup>2</sup> (or # 16AWG)									