

PV DC SPD - Type 2



Features

- Non-destructive screening technology for MOV
- Reliable thermo disconnect device
- High discharge capacity
- PCB on board with slim size
- Gold-plating contactor of microswitch
- Remote status indication

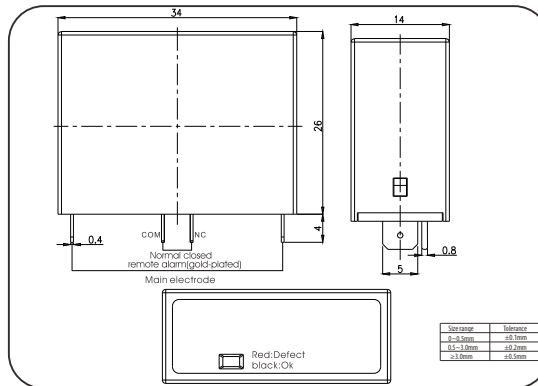
Approval

- RoHS
- UL 94 V-0
- TUV
- CE
- UL 1449

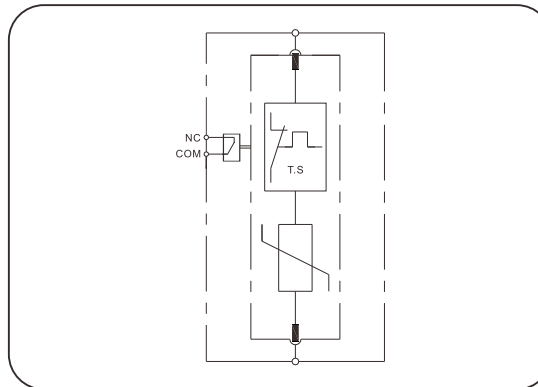
Description

PCB on board, Type 2 /Class II multi-purpose single-pole compact SPD for use in PV DC & AC systems at boundaries from LPZ 0s-1 and higher.

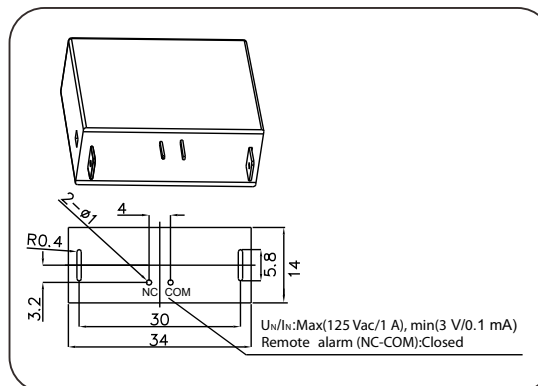
Dimension drawing



Circuit diagram



PCB pad diagram



Type	PV 500-25M2-10R
Part No.	94 10 58
Electrical	
SPD according to IEC/EN 61643-11/31	Type 2
SPD according to GB/T 18802.11/31	Type 2
SPD according to UL1449	4CA
Number of ports	1
Technology	MOV
Max. continuous operating d.c. voltage (U_{CPV})	500 V
Max. continuous operating a.c. voltage (U_c)	385 V
Nominal discharge current (8/20 μ s) (I_n)	10 kA
Max. discharge current (8/20 μ s) (I_{max})	25 kA
Voltage protection level (U_p)	1.5 kV
Response time (t_R)	≤ 25 ns
Short-circuit withstand capacity (I_{SCP})	1000 A
Mechanical	
Method of mounting	PCB on board
Enclosure dimensions (HxWxD)	34 mm X 14 mm X 26 mm
Indication	
Operating status/fault indication	Black / red
Type of remote signaling contact	Changeover contact
Switching capacity	125 Vac&1 A(Max), 3 V&0.1 mA(Min)
Environmental	
Location category	Indoor only
Operation temperature range (T_U)	-40 °C ... +85 °C
Relative humidity	$\leq 95\%$ (No condensation)
Operation altitude	≤ 5 km
Degree of protection	IP 20
Enclosure material	Thermoplastic, UL 94 V-0

Notes:

The product is PCB surface mounted type, both hand-welding and wave-welding are applicable, 100 W intelligent electric iron is recommended for hand-welding, temperature 410 ± 10 °C, welding time less than 3 seconds, solder melt point 200-240 °C, recommend wave welding curve: Preheating temperature Zone 1: 115 ± 5 °C, Zone 2: 155 ± 5 °C, Peak temperature 265 ± 5 °C, 1.15 m/min to 1.25 m/min, specific value is tunalbe according to the PCB.

FR-4 double-layer PCB is recommended, thickness of the main electrode copper foil should be greater than 2 ounce, width is greater than 5.0 mm. Right angle is not recommended when layout, the corner should be as wide as possible and greater than 6 mm double layer, the Alarm wire should be reasonably wired according to the alarm system used (current, voltage), the wire width should be as wide as possible to reduce the copper foil resistance and compliance the electrical safety specification and Insulation requirements. The alarm circuit shall be isolated to the live circuit by reinforced insulation according to EN 60950-1:2006/A2:2013, the dielectric withstand voltage shall be 3000Vrms between the remote alarm circuit and live circuit.