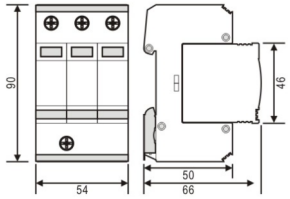
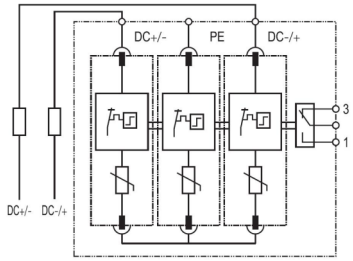
■ TSTLP® Photovoltaic Surge Arrester

INTRODUCTION: TSTLP® TS series Photovoltaic Surge Arrester,designed according to IEC 61643-11; GB 18802.1;YD/T 1235.1, is mainly applied in photovoltaic system. The max. PV voltage up to U_{CPV} =800V dc, protecting photovoltaic inverter and so on

		
Product Photo	Dimension(mm)	BCD

TECHNICAL DATA

Model Number		**TS-PV150**	TS-PV600	TS-PV1000
Max. PV voltage [Uc pv]	Un	≤150V	≤600V	≤1000V
Max continuous d.c. Voltage (DC+/DC- - PE	Uc	75V	300V	500V
Total discharge current (8/20)	I_{total}	40kA	40kA	40kA
Normal discharge current (8/20) (DC+/DC- - PE)	In	20kA	20kA	20kA
Normal discharge current (8/20) (DC+/DC- - PE)	Imax	40kA	40kA	40kA
Voltage protection level at In	Up	≤ 1.0kV	≤ 2.5kV	≤ 4.0kV
Voltage protection level 5kA	Up	≤ 0.8kV	≤ 2.0kV	≤ 3.6kV
Response time	t_A	≤ 25ns		
Max. back up fuse (L)		200A gL/gG		
Max. back up fuse (L-L')		125A gL/gG		
Operating temperature range	Tu	-40°C...+80°C		
Relative humidity:		≤95% (25°C)		
Cross-sectional area		1.5mm² ~ 25mm² solid / 35mm² flexible		
Mounting on		35mm² DIN rail		
Enclosure material		Black thermoplastic, UL94-V0		
Standards		IEC 61643-1; GB 18802.1; YD/T 1235.1		
Type of remote signalling contact		Switching contact		
Switching capacity	U_N/I_N	AC:250V/0.5A DC:250V/0.1A,125V/0.2A,75V/0.5A		
Cross-sectional area for remote signalling contact		Max. 1.5mm² solid / flexible		
Certification		CE (LVD, EMC)		

MAIN CHARACTER

- ✓ High discharge capacity, quick response, pluggable
- ✓ Approved fault-resistant circuit, consist of three varistors and thermal disconnection device
- ✓ Multi functional connection for conductor and busbars
- ✓ Window will display red when fault occurs, also provide remote alarm terminal at the same time

INSTALLATION INSTRUCTION

This surge arrester is usually installed in distribution-box, protecting PV system devices in photovoltaic generator circuit. Fuse must be installed at the upstream of the surge arrester or the lightning arrester to make sure that the protected system has double protection. The value of the fuse used in a surge arrester system should be conformed to:

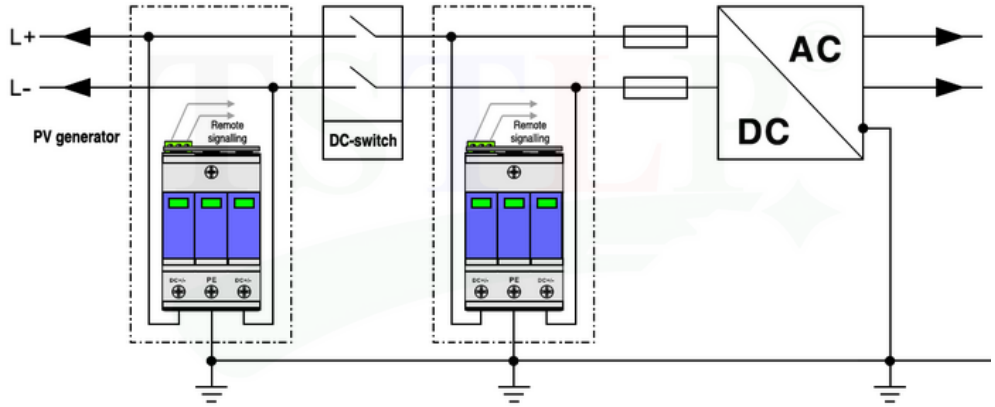
1. 1. The value of FUSE should not be larger than the max. withstand capacity of the surge arrester's backup fuse value.
2. 2. Under the status of the max. current in the power supply & close loop circuit available current, the fuse should be able to disconnect when overloaded or short-circuited.
3. Take 1 & 2 into consideration, the fuse should be as large as possible to allow the maximum surge discharge of surge arrester.

INSTALLATION STEPS

1. Check the product for integrity of the package; make sure the product window indicate green.
2. Mount the surge arrester on 35 mm DIN rail.
3. Connect conductors, the cross-sectional area of cable must be larger than 6mm² . The withstand voltage value of cable is not smaller than AC800V; ensure wiring reliable.
4. If need remote alarm, it should be connected signal lines to remote signal terminal 1 and 2, or 2 and 3 (When normal 1 and 2 open, 2 and 3 close; when fault, the state is reversed).
5. After above, switch on the power supply and turn on the circuit breaker, if the surge arrester appeared green window, indicates the unit is operating normally.

Regularly inspect the operating status, especially after lightning. Once the fuse upstream break, or the surge arrester's window not indicate green, electrician should check/replace the surge arrester.

INSTALLATION DIAGRAM FOR REFERENCE



WARNING:

1. The device must be installed by electrically skilled person, conforming to national standards and safety regulations.
2. It is recommended that installation should be done under power off condition.