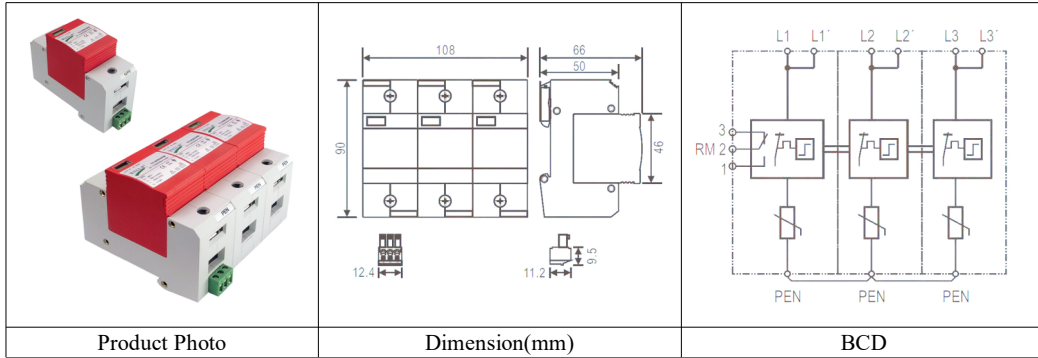




## ■ TSTLP® TS-WTS Series Surge Arrester for Wind-Turbine System

- ❖ **INTRODUCTION:** TS-WTS Series is applied for wind turbine system. The max. Continuous operation up to 600VDC /700VDC protecting turbine and so on. Designed according to GB 18802.1-2002 / IEC61643-11



### ❖ TECHNICAL DATA

Model Number		TS-WTS600RM TS-WTS600RM/3	TS-WTS750RM TS-WTS750RM/3
Rated voltage (max. a.c. continuous voltage)	U <sub>c</sub>	600V	750V
Rated voltage (max. a.c. continuous voltage)	U <sub>c</sub>	600V	750V
Nominal discharge current (8/20)	I <sub>n</sub>	20 kA	15 kA
Max. discharge current (8/20)	I <sub>max</sub>	40 kA	30 kA
Voltage protection level at I <sub>n</sub>	U <sub>p</sub>	≤ 3 kV	≤ 3 kV
Voltage protection level 5kA	U <sub>p</sub>	≤2.5 kV	≤2.5 kV
Response time	t <sub>A</sub>	≤ 25ns	
Max. back up fuse (L-1)		200 A gL/gG	
Max. back up fuse (L-L')		125A gL/gG	
Short-circuit withstand capability for max. Back up fuse		25kA <sub>rms</sub>	
Operating temperature range	T <sub>u</sub>	-40°C...+80°C	
Relative humidity:		≤95% (25°C)	
Cross-sectional area		1.5mm ~ 25mm solid / 35mm flexible	
Mounting on		35mm <sup>2</sup> DIN rail	
Enclosure material		White Red thermoplastic, UL94-V0	
Standards		IEC 61643-11; GB 18802.1; YD/T 1235.1	
Type of remote signalling contact		Switching contact	
Switching capacity	U <sub>N</sub> /I <sub>N</sub>	AC:250V/0.5A DC:250V/0.1A,125V/0.2A,75V/0.5A	
Cross-sectional area for remote signalling contact		Max. 1.5mm <sup>2</sup> solid / flexible	
Compliance		CE (LVD, EMC)	

### ❖ MAIN CHARACTER

- ✓ High discharge capacity, quick response
- ✓ Low residual voltage, fine protection and with double terminals for parallel or serial (V-shape) connection.
- ✓ Multi functional connection for conductor and busbars
- ✓ Window will display red when dault occurs, also provide remote alarm terminal at the same time.

### INSTALLATION INSTRUCTION

This surge arrester is usually in stalled in distribution-box,protecting wind turbine and so on. For TN system, usually use 3P or 3+1(PE/N) pieces of this product.

Fuse must be installed at the upstream of the SPD or the lightning arrester to make sure that protected system has double protection. The value of the fuse used in a SPD system should be confirmed to:

1. The value of FUSE should not be larger than the max.withstand capacity of the SPD's backup fuse value.
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.

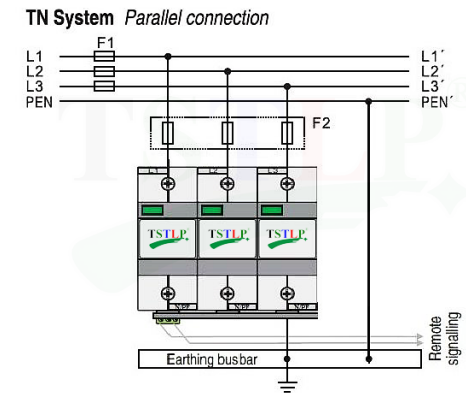
**Take 1 & 2 into consideration, the fuse should be as large as possible to allow the maximum surge discharge of SPD.**

### INSTALLATION STEPS

- 1) Check the product for integrity of the packAge; make sure the product window indicate green.
- 2) Mount the SPD on the 35mm DIN rail.
- 3) Connect conductors, the cross-section area of cable must be larger than 16mm<sup>2</sup>. The withstand voltage value of cable is not smaller than AC500V; 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 SPD's window does not appear red, this indicates the unit is operating normally.

**Regularly inspect the operating status, especially after lightning. Once the fuse upstream break, or the SPD's window indicates red, electrician should check/replace the SPD.**

### 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.