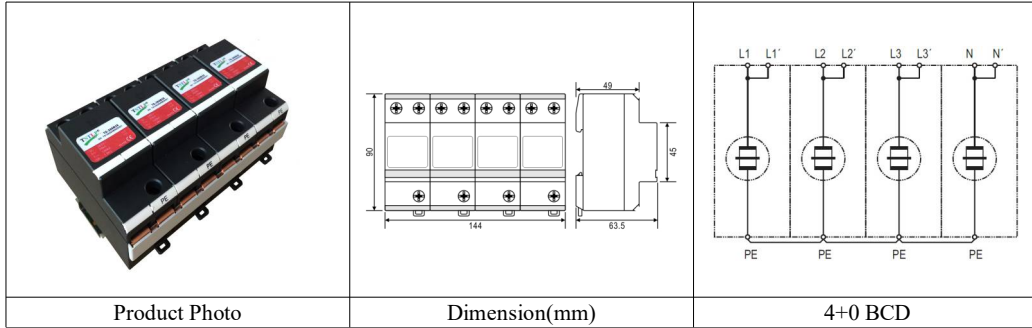




TSTLP®/TS-255BC25 Type 1+2 Lightning Current & Surge Arrester

- ❖ **INTRODUCTION:** TS-255BC25, designed according to IEC 61643-11 & GB 18802.11 is designed to protect low voltage devices from surge damages, specially designed for TN-S or TT system. Mainly used in power supply system such as power distribution-room, distribution-cabinet and other important power supply system.



❖ TECHNICAL DATA

Model Number	TS-255BC25/4 TS-255BC25/2 TS-255BC25 (4+0,2+0, 1P)	TS-255BC25/4 TS-255BC25/2 TS-255BC25 (3+1, 1+1, N-PE)	
4+0 for TN-S system			
3P for TN-C system			
2+0 for TN system			
3+1 for TN-S/TT system			
1+1 for TN/TT system			
Rated voltage (max. continuous voltage)	Uc	255VAC~	255VAC~
Lightning impulse current (10/350)	I _{imp}	100 kA (total)	100 kA (total)
Lightning impulse current (10/350)	I _{imp}	25 kA	25 kA (L-N) 100 kA(N-PE)
Nominal discharge current (8/20)	I _n	100 kA	100 kA
Max. discharge current (8/20)	I _{max}	120 kA	120 kA
Voltage protection level	U _p	≤ 1.8 kV	≤ 1.8 kV(L-N); ≤1.5 kV(N-PE)
Follow current extinguishing capability at U _c	I _f	32A fuse will not be triggered at kArms (L-N)	32A fuse will not be triggered at kArms (L-N) 100A _{rms} (N-PE)
Response time	t _a	≤ 100ns	≤ 100ns
TOV voltage	U _T	335V / 5sec (L-N);	335V / 5sec (L-N); 600V/200ms
Max. back up fuse (L)		200AgL/gG	
Max. back up fuse (L-L')		125AgL/gG	
Operating temperature range (parallel wiring)	T _{UP}	-40°C...+80°C	
Operating temperature range (through wiring)	T _{US}	-40°C...+60°C	
Relative humidity:		≤95% (25°C)	
Cross-sectional area		35mm ² solid / 50mm ² flexible	
Mounting on		35mm DIN rail	
Enclosure material		Black thermoplastic, UL94-V0	
Standards		IEC 61643-11 & GB 18802.11	
Compliance		CE (LVD, EMC & RoHS)	

❖ MAIN CHARACTER

- ✓ Combined SPD for three-phase TN /TT system
- ✓ Adopt hermetical GDT technology, high follow current extinguish capacity
- ✓ Extremely low voltage protection
- ✓ Double terminals for parallel or series (V-shape) connection
- ✓ Multifunctional connection for conductor and busbars

INSTALLATION INSTRUCTION

According to lightning protection zones concept, for installed at LPZ 0_A -1 or higher. This surge protection is usually installed in distribution-box or feeder bus of UPS, protecting devices or equipment downstream. 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 conformed 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.

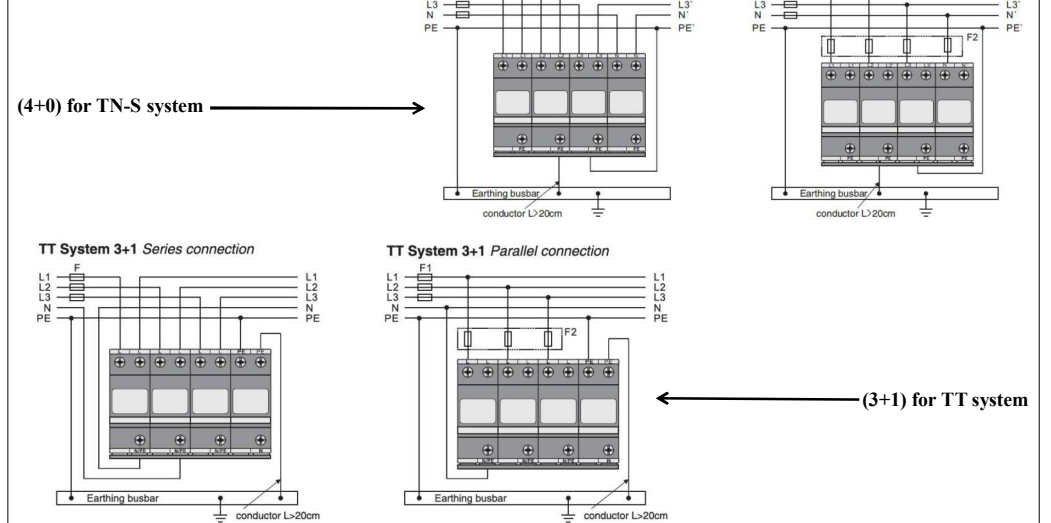
Take 1 & 2 into consideration, the fuse should be as large as possible to allow the maximum surge discharge of SPD.

INSTALLATION STEPS

- a. Mount the SPD on 35 mm DIN rail.
- b. Connect conductors, the cross-sectional area of cable (L-N) must be larger than 16mm², and the earthing cable(N-PE) larger than 25mm². The withstand voltage value of cable is not smaller than AC500V; ensure wiring reliable.
- c. After above, switch on the power supply and turn on the circuit breaker, test the SPD does not fault appear, this indicates the unit is operating normally.

Regularly inspect the operating status, especially after lightning. Once the fuse upstream break, or the SPD's fault appear, 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.