

## SP1-B ( Class I Protection )

### Application



SP1-B series SPD is suitable for TT, IT, TN-S, TN-C-S power supply system with AC 50/60Hz, 230/400V and below. Its design based on IEC6143-1, GB18802.1 and GB50057 standard requirements, can discharge 100KA lightning over current, normally installed at incoming line of the main distribution box of buildings.

B type lightning current SPD used for equipotential connection during lightning, installed at the LPZOA zone or junction area of LPZ1 zone, normally installed at the incoming line of low voltage main distribution board.

### Selection Principle

- Modularization - can replace the protection module without electricity cutoff.
- Big current - maximum can withstand 100KA(8/20 $\mu$ s)
- High speed - response time less than 25ns
- Status indication - the window color shows the working status : Green ( normal ), Red (fault)

### Main Technical Parameters

Item & Data	Classification	SP1-B (Class I protection)											
Poles		1P, 2P, 1P+N, 3P, 3P+N, 4P											
Rated Operating Voltage Un(V)		230/400											
Nominal Discharge Current In(8/20 $\mu$ s)KA		30			40			60					
Max. Discharge Current I <sub>max</sub> (8/20 $\mu$ s)KA		60			80			100					
Max. Continuous Operating Voltage U <sub>c</sub> (V)		320	385	420	440	320	385	420	440	320	385	420	440
U1mA Varistor Voltage (V)		510	620	680	710	510	620	680	710	510	620	680	710
Protection Level U <sub>p</sub> (KV)		<2.0	<2.2	<2.2	<2.4	<2.2	<2.5	<2.5	<2.7	<2.5	<2.7	<3.0	<3.2
Response time (ns)		<25											
Leakage Current 75% U <sub>c</sub> 1mA		<20 $\mu$ A											
Test classification		Class II											
Protection Degree		IP20											
Max. Ambient Temperature		-40°C ~+80°C											
Insulation enclosure material		PBT/PA66											
Flame Resistance Grade, confirm to UL94		VO											
Installation Mode		35mm standard rail											
Enclosure Color		Red/Gray											
Suggested Fuse or circuit breaker (A)		40~63											
Conductor cross section (mm <sup>2</sup> )	Phase line, Neutral line	6-25 hard wire											
	Earthing Line	6-25 dual color											
Standard		GB18802.1 GB18802.21 IEC61643-1 IEC61643-21 UL1449 ed.2											