

SP1-C (Class II Protection)

Application



SP1-C 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. Mainly used for protect the low voltage electrical device to prevent the surge current caused by air discharge (such as lightning) or operating over voltage, used as one kind of voltage limiting device, it equipped with heavy duty zinc oxide varistor.

SP1-C type SPD should installed as near as possible to the upstream line side of the protected equipment (immediately connect to the downstream of incoming line), as earthing device to connecting external conductor (L) or neutral line and user equipment. Installed at transition area of LPZOA/OB and LPZ1 zone or LPZ1 and LPZ2 zone, normally installed at the incoming of low voltage main distribution board.

Main Technical Parameters

Classification		SP1-C (Class II Protection)				
Item & Data						
Poles		1P, 2P, 1P+N, 3P, 3P+N, 4P				
Rated Operating Voltage Un(V)		230/400				
Nominal Discharge Current In(8/20μs)KA		20				
Max. Discharge Current I _{max} (8/20μs)KA		40				
Max. Continuous Operating Voltage U _c (V)	275	320	385	420	440	
U1mA Varistor Voltage (V)	430	510	620	680	710	
Protection Level U _p (KV)	<1.5	<1.6	<1.8	<2.0	<2.2	
Response time (ns)		<25				
Leakage Current 75% U _c 1mA		<20μA				
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		White/Gray				
Suggested Fuse or circuit breaker (A)		40~63				
Conductor cross section (mm ²)	Phase line, Neutral line	4-16 hard wire				
	Earthing Line	4-16 dual color				
Standard		GB18802.1 GB18802.21 IEC61643-1 IEC61643-21 UL1449 ed.2				