

SP1-NPE Neutral Earthing Surge Protection Module (SPD)

Application



SP1-NPE Neutral earthing protection module (brief as NPE) suitable for TT, TN-S power supply system with AC 50/60Hz, rated voltage 400V, used between Neutral line and Earthing line, make surge protection caused by indirect lightning and direct lightning or other instant over voltage. And can assembly with SP1-C, SP1-D series SPD to form the combination of 1P+NPE, 3P+NPE etc., as to improve the anti-surge performance.

Standard:GB18802.1, GB18802.12, IEC61643-1, IEC61643-21, UL1449 ed.2

Structure Features

NPE use gas discharge tube or air gap discharge as main execute component, normally it shows high resistance status, when there is surge in power grid due to indirect and direct lightning or other instant over voltage, the electrode will breakover within nanosecond grade time, to lead the surge to earth, and protect the electric equipment in the power grid, after the surge across NPE, it recover to high resistance status again, and no influence to the normal running of power grid.

Main Technical Parameters

Type	Poles	Power grid operating voltage	Max. continuous operating voltage Un(V)	Voltage protection level	Max. discharge current (Imax)	Nominal discharge current (In)	Response time (ns)	Working environment
SP1-NPE	1P+NPE	230	320	1.5-2.0kV	40kA	20kA	<25	Temperature Relative humidity
	3P+NPE	400	420					

Electric Protection Principle

