

SG50-1NPE

Single phase model with NPE mode



Overview

Shogun's series of power line surge suppression products (SG50-1NPE models) have been specially developed to match the protection requirement of surge protection on AC line low voltage application according to the recommendation of various standards such as IEC, UL etc. SG50-1NPE models are available for both shunt protection and series protection with high capability in suppressing both short duration (impulse voltage limiting) and long duration surge that could occur in power lines. SG50-1NPE models use the high energy handling Transient Voltage Surge Suppression (TVSS) device which offers greater protection capability, higher surge rating, faster response time, and longer operational life. Models available for single phase and three phase systems and level of protection by means of surge rating can reach up to 50kA per phase at 8/20us standard lightning waveform.

Specifications

Single Stage High Energy Handling Design incorporated with removable / replaceable TVSS module and Remote Alarm circuit.

Electrical System :

Nominal Line Voltage (U_n) :	220-230Vrms, 50-60Hz
Max. Line Voltage (U_c) :	275Vrms (L-N), 50-60Hz, 255Vrms (N-PE), 50-60Hz
Rate Current :	Unlimited

Reference Standard :

IEC 61643-11:2011, EN 61643-11:2012, DIN VDE 0675, UL-1449, ANS/IEEE C62.41-2-2002

Certification :

CE (LVD, EMC)

Category IEC/EN/VDE :

Class I+II / Type1+2 / B+C

Protection Config :

Installation :	Shunt (L-N, N-PE)
Protective Device :	Single MOV
Response time (t_a) :	<25 nanosec (L-N), <100 nanosec (N-PE)
Recommended back-up fuse :	125A gL/gG

Surge Rating :

Nominal discharge surge current (8/20 μ s) (I_n) :	25kA (L-N), 40kA (N-PE)
Max. discharge surge current (8/20 μ s) (I_{max}) :	50kA (L-N), 65kA (N-PE)
Lightning Impulse Current (10/350us) (I_{imp}) :	6.25kA (L-N), 20kA (N-PE)

Control & Monitoring :

Display :	Status display
Remote Alarm:	NO/NC volt free contact, 0.5A 250Vac/ 3A 125V

Surge Performance: (at category B3/C1)

Protection level (U_p , I_p) :	$\leq 1.2kV$ (L-N, N-PE), $\leq 1.4kA$ (L-N, N-PE)
Temporary over voltage, TOV (U_T) :	335V (5s / withstand mode) (L-N) 385V (60min / safe failure mode) (L-N) 1200V (200ms / withstand mode) (N-PE)

Physical:

Operating Temperature :	- 40 to 80 °C
Housing material :	Thermoplastic, UL94 V-0
Degree of protection :	IP 20
Mounting on :	DIN rail 35mm
Cross-sectional area :	25mm ² solid/ 35mm ² flexible
Dimensions (W x L x H) mm :	35 x 90 x 68
Weight :	190g