

SG475-3NPE

Three phase model with NPE mode



Overview

Hybrid Spark Gap

Hybrid Spark Gap (HSG) high-energy surge diverters are designed for point-of-entry protection at main switchboards, particularly in locations where power grid instability is a concern.

Hybrid Protection

The Hybrid Spark Gap design combines a spark gap and a Metal Oxide Varistor (MOV) connected in series to enhance the overvoltage withstand capability of the surge protection device. This hybrid configuration allows the HSG to tolerate continuous overvoltage of up to 480 V while still maintaining a low protection (clamping) voltage level.

LED Status Active Display

The LED status display provides visual indication of the condition of each protection segment.

- Brightly illuminated LEDs indicate normal operation.
- A dim LED indicates failure of an external backup fuse and activates the external alarm.
- An extinguished LED indicates internal component failure or thermal overload, which also activates the external alarm.

Safe Metal Enclosure

Shogun power protection products are housed in robust, all-metal enclosures to ensure maximum safety. In the event of prolonged overvoltage conditions, the enclosure will not ignite or explode, reducing the risk of fire and equipment damage.

Standard

EN/IEC Type1/Class A, CE approved certified, IEC 61643-11:2011 Class I, AS/NZS 1768:2007, UL 1449 3rd edition, IEEE 62.41.2:2002, ISO9001:2015 NQA, ISO14001

Specifications

Electrical Specifications

Connection type		Shunt
Modes of protection		L-N, N-PE
Number of ports		1
Number of phases		3
Location		Indoor
Nominal voltage	U_0	230VAC
Short circuit withstand level	I_{SSCR}	200kA _{rms}
Maximum backup fuse		63A
Recommended SCB		SCB1-3-25
Earth leakage current	I_{PE}	<5 μ A

Electrical (L-N) Specifications

Maximum continuous voltage AC	U_c	475VAC
Maximum discharge current (8/20 μ s)	I_{max}	200kA
Nominal discharge current (8/20 μ s)	I_n	80kA
Lightning impulse current (10/350 μ s)	I_{imp}	30kA
Voltage protection level (3kA 8/20 μ s)	U_p	<1000V
Voltage protection level (In)	U_p	<1400V
Response time	t_A	<5ns
Voltage withstand (5s)	U_T	480V

Indication Specifications

Display		LED power and thermal failure
Alarm		SPDT power and thermal failure
Alarm isolation		4kV

Electrical (N-PE) Specifications

Maximum continuous voltage	U_c	255VAC
Maximum discharge current (8/20 μ s)	I_{max}	150kA
Lightning impulse current (10/350 μ s)	I_{imp}	50kA
Nominal discharge current (8/20 μ s)	I_n	100kA
Voltage protection level (1kV/ μ s)	U_p	<700V
Voltage protection level (3kA 8/20 μ s)	U_p	<1000V
Response time	t_A	<100ns
Voltage withstand (200ms)	U_T	1200V
Follow current interrupt rating	I_n	100A

Mechanical Specifications

Minimum operating temperature		-40°C
Maximum operating temperature		70°C
Minimum operating humidity		5%
Maximum operating humidity		95%
Mounting method		TS35 DIN Rail
Environmental rating		IP20
Enclosure material		Aluminium
Enclosure finish		Black powdercoat
Terminal capacity - power		16mm ²