

Triggered Spark Gap

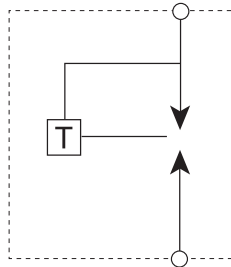
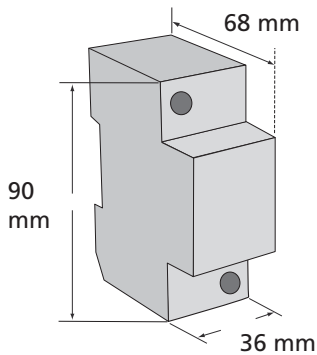


Features

- Triggering air gap technology provides low let-through voltage – offers superior protection compared to traditional spark gaps
- Effective equipotential bonding – provides N-PE equalization protection bond on TT power distribution systems
- Meets IEC® 61643-1 test class I, II
- Can be used L-PE, or L-N due to follow current control

The TSG is a vented spark gap with triggering circuit that typically allows let-through voltage of less than 1500V to be achieved. The superior follow current performance allows the TSG to be used on “active”

circuits such as L-L, L-N, L-PE as well as N-PE. The high surge rating is ideal for Neutral-Earth bonding of TT power systems, as per IEC 60364-5-534.



Back-up overcurrent protection for non N-PE applications:

Supply Rating	Minimum Circuit Breaker Rating	Minimum Fuse Rating
500A (<10kAIC)	100A	40A
750A (<15kAIC)	100A	63A
1000A (<20kAIC)	125A	80A
2000A (<43kAIC)	160A	100A

Although the Backup Overcurrent Protection table above indicates minimum values of overcurrent protection to prevent nuisance tripping, it is recommended that the overcurrent protection not exceed 200A Circuit Breaker or a 125A fuse.

Model	TSG11302S	TSG11302S120V
Nominal Voltage, U_n	220 - 240 V	120 V
Distribution System ⁽¹⁾	TN-C, TN-C-S, TN-S, TT	
Max Cont. Operating Voltage U_c	440 VAC	240 VAC
Frequency	50/60 Hz	
Operating Current @ U_n	2.2 mA	
Max Discharge Current, I_{max}	130 kA 8/20 μ s	
Impulse Current, I_{imp}	50 kA 10/350 μ s	
Protection Modes	Single mode (L-L, L-N, L-PE or N-PE)	
Technology	Triggered Spark Gap	
Follow Current Extinguishing Capability	43kA @ U_n	
Voltage Protection Level, U_p	<2.3 kV @ 20 kA <1.5k V @ 3 kA	
Status	LED for Line connected modes	
Dimensions H x D x W: mm (in)	90 x 68 x 36 (3.54 x 2.68 x 1.42)	
Module Width	2 M	
Weight: kg (lbs)	0.3 (0.66)	
Enclosure	DIN 43 880, UL® 94V-0 thermoplastic, IP 20 (NEMA®-1)	
Connection	2.5 mm ² to 50 mm ² (#14AWG to 1/0) or 12 mm x 2.5 mm busbar Bi connect terminal	
Mounting	35 mm top hat DIN rail	
Temperature	-40°C to 80°C (-40°F to 176°F)	
Approvals	C-Tick, CE	
Surge Rated to Meet	ANSI®/IEEE® C62.41.2-2002 Cat A, Cat B, Cat C ANSI®/IEEE® C62.41.2-2002 Scenario II, Exposure 3, 100 kA 8/20 μ s, 10 kA 10/350 μ s	

(1) Should not be connected in all modes of these systems.

