

## MGS Surge Protective Device

MGS 50kA/Phase



MGS 50kA/Phase Rear Removable Brackets



### General Technical Specifications

- Connection Type: Parallel, Prewired Wire Lead 3ft #12AWG
- Voltage, Phase Configuration: 120V Single Phase, (2W+G)(L1, N, G)  
120/240V Split Phase, (3W+G)(L1, L2, N, G)  
120/208V Three Phase Wye, (4W+G)  
277/480V Three Phase Wye (4W+G)  
240V Three Phase Delta (3W+G)  
480V Three Phase Delta, (3W+G)  
600V Three Phase Delta, (3W+G)
- Maximum Continuous Operating Voltage: 120V, 150 VAC (125%);  
240V, 320 VAC;  
277V, 320 VAC;  
480V, 550 VAC;  
600V, 690 VAC; All Others 115%
- Surge Capacity: 25 kA/Mode, 50kA/Phase
- Short Circuit Current Rating (SCCR): 200kAIC
- Protection Modes: All Available Modes: L-N, L-L, L-G, N-G
- Operating Frequency Range : 47 - 63 Hz
- UL 1449 Location Type: Type 1 (SPDs intended for Line or Load Side of Main Disconnect) or Type 2 (Intended for Load Side of Main Disconnect)
- Nominal Discharge Current (In): 10 kA
- Status Indication: Power and Service LEDs, Form C Relay
- Enclosure: NEMA 4X Polycarbonate
- Enclosure Size: 7.00" x 3.16" x 3.00" (H x W x D)  
Mounting: 5.81" x 2.437"
- Lifecycle Testing: Tested up 12,000 10kA Impulses - Passed
- 50 Ohm EMI/RFI Attenuation : -50 db max(Type 2), -45db max(Type 1); from 10 kHz to 100MHz. The system provides up to 120dB insertion loss from 100 kHz to 100 MHz when used in a coordinated facility system.
- Response Time: <0.5 nanoseconds
- Operating Temperature: -40°C to +75°C
- Operating Humidity: 0% to 95% non-condensing
- Warranty: 20 Years

### Designed, Manufactured, and Tested Consistent With

- UL 1449 4th Edition
- UL 1283 - Type 2 Devices
- UL 96A Lightning Protection Master Label Compliant
- ROHS Compliant
- CSA C22.2 No. 269.2
- ANSI/IEEE C62.41.1-2002, C62.41.2-2002, C62.45-2002, C62.62-2010, C62.72-2016, & IEEE SA 1100-2005 (Emerald Book)
- NEC Article 285 (Now NEC 2020 Article 242)
- NEC Articles 620.51, 645.18, 670.6, 695.15, 700.8 & 708 requiring SPDs
- UL 96A and NFPA 780 Lightning Protection
- IEC 61643, CE

## MGS Surge Protective Device

Part Number Ordering Information					
Product ID		Surge Current Capacity		Voltage & Phase Configuration	
Code	Low Voltage SPD Connection	Code	Capacity	Code	Voltage / Phase
MGS	#12 Wire Lead	050	25kA/Mode; 50kA/Phase	LN	120V Single Phase <sup>1</sup>
MGC, MGD, & MGA Voltage/Phase Codes May Be Different Than MGS Codes				LS	120V Split Phase <sup>2</sup>
				LP	120/208V 3 Phase Wye <sup>3</sup>
				FO	277/480V 3 Phase Wye <sup>3</sup>
				DP	240V 3 Phase Delta <sup>4</sup>
				RP	480V 3 Phase Delta <sup>4</sup>
				SR	600V 3 Phase Delta <sup>4</sup>

Example Product Number:

**MGS**

**050**

**RP = MGS - 050RP**

MGS Dimensional Drawing w/ Brackets

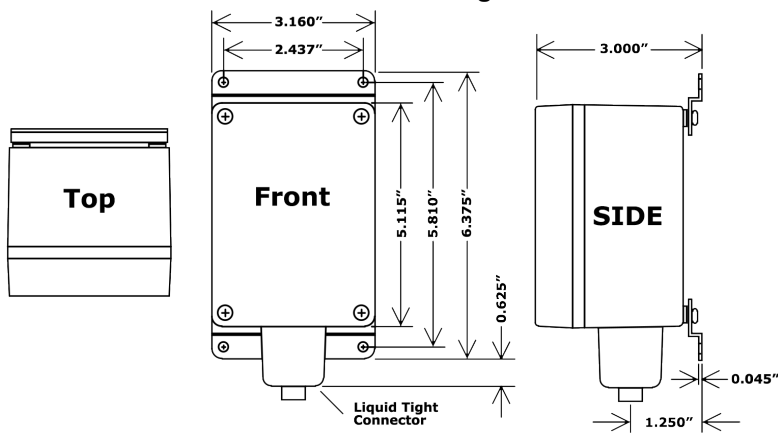
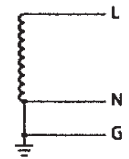
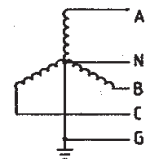


Fig. 1



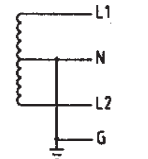
Single Phase L-N, 2 W + G

Fig. 3



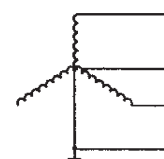
Three Phase Wye, 4 W + G

Fig. 2



Split Phase 3 W + G

Fig. 4



Three Phase Delta, 3 W + G

## System Voltage Compatibility

Model Voltage/Phase Code	Nominal System Voltages	System Configuration	MVOC	SCCR	UL 1449 Voltage Protection Rating			
					L-N	L-G	N-G	L-L
LN - 120V Single Phase	120	Single Phase, 2W + G	150	200kA	700	700	700	
LS - 120V Split Phase	120/240	Split Phase, 3W + G	150	200kA	700	700	700	1200
LP - 120/208V 3 Phase Wye	120/208; 127/220	3 Phase, 4 Wire + G	150	200kA	600	700	700	1200
FO - 277/480V 3 Phase Wye	220/380; 240/415; 277/480	3 Phase, 4 Wire + G	320	200kA	1200	1200	1200	2000
DP - 240V 3 Phase Delta	220; 230; 240	3 Phase, 3 Wire + G	320	200kA		1200		1200
RP - 480V 3 Phase Delta	380; 400; 415; 440; 460; 480	3 Phase, 3 Wire + G	550	200kA		1800		2000
SR - 600V 3 Phase Delta	525; 600	3 Phase, 3 Wire + G	690	200kA		2000		2500