

# Why Every Facility Needs Surge Protection

Electrical disturbances cost North American Companies more than \$26 billion every year. Every process within your building is controlled by electrical and electronic components which all require surge protection to function reliably.

ANSI/IEEE has defined common disturbances which occur in modern facilities per the waveforms to the left. Depending on the proximity of the equipment to your power entry points, the severity increases. As the transient event propagates throughout your building, it degrades your electronic components by stressing them with excess voltage and current.

Every modern facility is a strong candidate for protection. Intermatic has a broad line of Service Entrance, Panelboard and Point of Use Protection to select from.

**Service Entrance, Panelboard and Point of Use surge protection can be found in the following types of facilities and installations:**

- Manufacturing
- Utility
- Financial Institutions
- Wastewater Facilities
- Healthcare/Medical
- Correctional
- Retail
- Restaurants
- Education/University
- Military Installations
- General Office
- Entertainment Facilities
- Data Centers
- Airports
- Semiconductor Fabrication
- Telecom/Cell Sites
- Broadcast Studios

**Virtually all devices which are powered by electricity are vulnerable. Surge Suppression is required for protection of the following types of systems:**

- Computer/Peripherals
- HVAC Controls
- Wafer Fabrication Equipment
- CNC Machines
- Network Servers/Routers/Modems
- Fire Alarm Systems
- Uninterruptible Power Supplies
- Pumps, motors and related equipment which has electronic controls or starters
- Telecom Equipment
- Security Systems
- Bar Code Scanning Equipment
- Programmable Logic Controllers
- Variable Frequency Drives
- Lighting Control and Dimming Systems
- Automatic Test Equipment



## Surge Suppression Definitions

**Surge Current Capacity** is the rated surge current that a design will withstand based on the standard 8 x 20 microsecond current waveform. Nema LS-1 states that this should be given for each mode of a surge protection device, since devices can have different components in each mode.

**Modes of Protection** are the coupling paths that exist in a single or three phase system.

**In a three phase wye system there are 10 potential modes where a transient can be coupled:**

- L1 to Neutral
- L1 to Ground
- L2 to Neutral
- L2 to Ground
- L3 to Neutral
- L3 to Ground
- L1 to L2 (split phase)
- L2 to L3
- L3 to L1
- Neutral to Ground

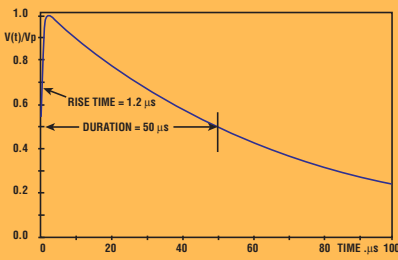
**In a three phase delta system there are six potential modes where a transient can be coupled:**

- L1 to Ground
- L1 to L2
- L2 to Ground
- L2 to L3
- L3 to Ground
- L3 to L1

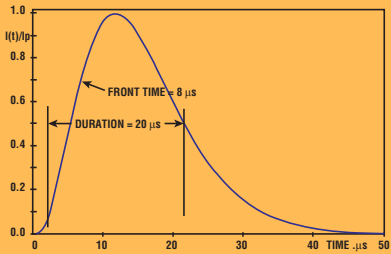
All modes must have suppression components coupled between them in order to be 100% effective.

**MCOV** (Maximum Continuous Operating Voltage) is the maximum steady state rms voltage at which the unit can safely operate. The recommended MCOV is 115% of nominal voltage for all voltage configurations.

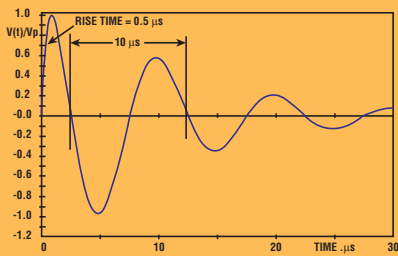
**EMI/RFI Noise Attenuation** is a way to rate filter performance over a range of specific frequencies. IEEE characterizes line noise as less than two times peak voltage. Line noise can be somewhat attenuated by the capacitance found in MOVs, but typically requires the addition of capacitors to increase effectiveness. EMI/RFI filters should be UL1283 Listed for safety.



**Voltage Waveform**



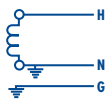
**Current Waveform**



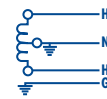
**100 kHz Ringwave**

## System Voltage

The wiring diagrams characterize common voltage configurations available for the products. Refer to individual product pages for models available in below configurations. Match the voltage configuration below with your voltage configuration at your Service Entrance, Distribution Panel or Panelboard location where you want to protect.



**120 Volt Single Phase 2 Wire plus Ground**



**120/240 Volt Single Phase 3 Wire plus Ground (split phase)**



**120/208 Volt Three Phase Wye 4 Wire plus Ground**



**120/240 Volt Three Phase HLD (High Leg Delta) 4 Wire plus Ground**



**240 Volt Three Phase Delta 3 Wire plus Ground**



**277/480 Volt Three Phase Wye 4 Wire plus Ground**



**480 Volt Three Phase Delta 3 Wire plus Ground**



**347/600 Volt Three Phase Wye 4 Wire plus Ground**



**600 Volt Three Phase Delta 3 Wire plus Ground**

# Standards and Guidelines

ANSI/IEEE C62.41.1-2002 and ANSI/IEEE C62.41.2-2002 are the recognized American National Standards for establishing the surge withstand capability of equipment connected to utility power circuits in residential, commercial or industrial applications. The standard has established the following Location Categories which can be applied to virtually any type of facility.

## Category C

- Outside and Service Entrance
- Any underground lines
- Overhead line to detached building

## Category B

- Feeders and short branch circuits
- Distribution panel devices
- Lighting systems in large buildings

## Category A

- Outlets and long branch circuits

The following values and waveforms are recognized within Categories C, B and A. Location Category C is the Outside and Service Entrance and the harshest surge environment.

## Combination Waves

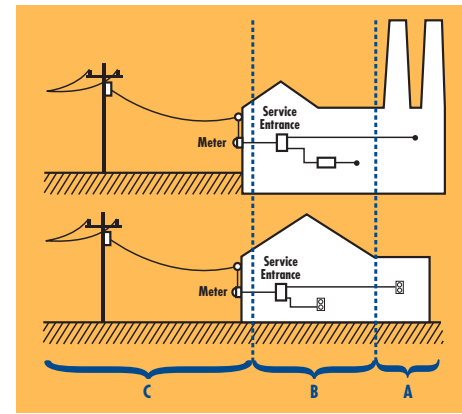
1.2 x 50 microsecond / 8 x 20 microsecond

| Location Category | Voltage (Peak)<br>1.2 x 50 $\mu$ sec. | Current (Peak)<br>8 x 20 $\mu$ sec. |
|-------------------|---------------------------------------|-------------------------------------|
| A                 | 6,000 Volt                            | 500 Amp                             |
| B                 | 6,000 Volt                            | 3,000 Amp                           |
| C low             | 6,000 Volt                            | 3,000 Amp                           |
| C high            | 10,000 Volt                           | 10,000 Amp                          |

## Ring Waves

100KHz 0.5 microsecond

| Location Category | Voltage (peak) | Current (peak) |
|-------------------|----------------|----------------|
| A                 | 6,000 Volts    | 200 Amp        |
| B                 | 6,000 Volts    | 500 Amp        |



**ANSI/IEEE C62.45** is the American National Standard for uniform testing of surge suppression devices. All Intermatic testing follows these guidelines.

**Nema Standard LS-1** is the National Electrical Manufacturers Association specification guideline for low voltage surge protection devices. The Nema LS-1 guideline establishes many of the industry definitions found on the following page.

**Underwriters Laboratories - UL1449** has recently been revised (August 1998) and requires surge suppression devices to safely pass overvoltage tests, abnormal overvoltage tests, short circuit withstand tests as well as assigns suppress voltage ratings based on a 6 KV, 500 Amp combination wave or impulse.

**UL1283** - The safety standard for EMI/RFI noise attenuation filters. While this device does not rate filters or performance - it does provide a level of testing to ensure the filter is safe for commercial application.

# Product Selection Chart

## Surge Suppression System

The following guidelines can be followed for Intermatic products:

### Choose Model by Voltage

| Location   | 480 VAC Delta | 277/480 VAC Wye | 120/208 VAC Wye | Refer to Page |
|--|---------------|-----------------|-----------------|---------------|
| <b>Large Service Entrance 2000 to 4000 Amp</b>   |               |                 |                 |               |
| Best   | PG5001-480-3D | PG5001-480-3Y   | PG5001-208-3Y   | 46            |
| Better   | PG4501-480-3D | PG4501-480-3Y   | PG4501-208-3Y   | 46            |
| Good   | PG4001-480-3D | PG4001-480-3Y   | PG4001-208-3Y   | 47            |
| <b>Small Service Entrance Less than 1600 Amp</b> |               |                 |                 |               |
| Best   | PG4501-480-3D | PG4501-480-3Y   | PG4501-208-3Y   | 46            |
| Better   | PG4001-480-3D | PG4001-480-3Y   | PG4001-208-3Y   | 47            |
| Good   | PG3500-480-3D | PG3500-480-3Y   | PG3500-208-3Y   | 48            |
| <b>Large Distribution Panel 1000 to 1600 Amp</b> |               |                 |                 |               |
| Best   | PG4001-480-3D | PG4001-480-3Y   | PG4001-208-3Y   | 47            |
| Better   | PG3500-480-3D | PG3500-480-3Y   | PG3500-208-3Y   | 48            |
| Good   | PG3000-480-3D | PG3000-480-3Y   | PG3000-208-3Y   | 49            |
| <b>Small Distribution Panel 600 to 1000 Amp</b>  |               |                 |                 |               |
| Best   | PG3500-480-3D | PG3500-480-3Y   | PG3500-208-3Y   | 48            |
| Better   | PG3000-480-3D | PG3000-480-3Y   | PG3000-208-3Y   | 49            |
| Good   | IG4803DECA    | IG4803YECA      | IG2083YECA      | 50            |
| <b>Large Panelboard 225 to 400 Amp</b>           |               |                 |                 |               |
| Best   | PG3000-480-3D | PG3000-480-3Y   | PG3000-208-3Y   | 49            |
| Better   | IG4803DECA    | IG4803YECA      | IG2083YECA      | 50            |
| Good   | IG4803ECD     | IG4803ECY       | IG2083ECY       | 50            |
| <b>Small Panelboard 60 to 200 Amp</b>            |               |                 |                 |               |
| Best   | IG4803DECA    | IG4803YECA      | IG2083YECA      | 50            |
| Better   | IG4803ECD     | IG4803ECY       | IG2083ECY       | 50            |
| Good   | IG4803DEH     | IG4803YEH       | IG2083YEH       | 51            |

There are four main factors to consider when specifying the appropriate device for your facility:

1. What is the amperage (size) of the Switchboard or Panelboard at the point of installation?
2. What is the geographic location of the facility? (i.e. the relative level of lightning exposure and utility grid switching activity)
3. What is the density of electronic equipment and how critical is the application? (i.e. a 7 x 24 computer data center would require a higher level of protection than a retail store)
4. What is the level of transient and noise producing loads within your facility? (i.e. a heavy industrial manufacturing environment or a densely populated computer data center would require a higher level of protection)

### NOTES:

- Pick appropriate model to match the voltage of your Service Entrance, Distribution Panel or Panelboard.
- See individual product pages for other available voltages.
- A facility without any Service Entrance protection would warrant a higher level of protection at downstream locations.

## ..... Surge Suppression System - PG5000 Series



**400 kA  
PER  
PHASE**

The PG5000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 28.66"H x 15.11"W x 8.05"D

Weight: 65 lbs.

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- Nema 3R Style Enclosure
- Redundant Protection per mode
- Safety Interlocked Disconnect
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty

### Integral Diagnostics:

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System
- Digital Surge Counter
- Audible Alarm

| Intermatic Model  | MCOV <sup>1</sup> L-G | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |        |        |        | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                 |       |         |
|---|-----------------------|--|--------|--------|--------|------------------------|---|-----------------|-------|---------|
|   |                       | L-N  | L-G    | N-G    | L-L    |                        | L-N   | L-G             | N-G   | L-L     |
| <b>PG5001-240-2S 120/240 VAC Single Phase (split)</b>         | 115%                  | 200 kA   | 200 kA | 200 kA | 200 kA | 400 kA                 | 362 V   | 334 V           | 307 V | 696 V   |
| <b>PG5001-208-3Y 120/208 VAC Three Phase Wye</b>              | 115%                  | 200 kA   | 200 kA | 200 kA | 200 kA | 400 kA                 | 362 V   | 334 V           | 307 V | 696 V   |
| <b>PG5001-240-3HLD 120/240 VAC Three Phase High Leg Delta</b> | 115%                  | 200 kA   | 200 kA | 200 kA | 200 kA | 400 kA                 | 362 V / (632 V)   | 334 V / (664 V) | 307 V | 811 V   |
| <b>PG5001-480-3Y 277/480 VAC Three Phase Wye</b>              | 115%                  | 200 kA   | 200 kA | 200 kA | 200 kA | 400 kA                 | 706 V   | 678 V           | 665 V | 1,348 V |
| <b>PG5001-480-3D 480 VAC Three Phase Delta</b>                | 115%                  | —  | 200 kA | —      | 200 kA | 400 kA                 | —   | 1,149 V         | —     | 1,240 V |
| <b>PG5001-600-3Y 347/600 VAC Three Phase Wye</b>              | 115%                  | 200 kA   | 200 kA | 200 kA | 200 kA | 400 kA                 | 938 V   | 905 V           | 932 V | 1,759 V |
| <b>PG5001-600-3D 600 VAC Three Phase Delta</b>                | 115%                  | —  | 200 kA | —      | 200 kA | 400 kA                 | —   | 1,500 V         | —     | 1,583 V |

#### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

## ..... Surge Suppression System - PG4500 Series



**300 kA  
PER  
PHASE**

The PG4500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 28.66"H x 15.11"W x 8.05"D

Weight: 65 lbs.

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- Nema 3R Style Enclosure
- Redundant Protection per mode
- Safety Interlocked Disconnect
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty

### Integral Diagnostics:

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System
- Digital Surge Counter
- Audible Alarm

| Intermatic Model  | MCOV <sup>1</sup> L-G | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |        |        |        | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                 |       |         |
|---|-----------------------|--|--------|--------|--------|------------------------|---|-----------------|-------|---------|
|   |                       | L-N  | L-G    | N-G    | L-L    |                        | L-N   | L-G             | N-G   | L-L     |
| <b>PG4501-240-2S 120/240 VAC Single Phase (split)</b>         | 115%                  | 150 kA   | 150 kA | 150 kA | 150 kA | 300 kA                 | 362 V   | 334 V           | 307 V | 696 V   |
| <b>PG4501-208-3Y 120/208 VAC Three Phase Wye</b>              | 115%                  | 150 kA   | 150 kA | 150 kA | 150 kA | 300 kA                 | 362 V   | 334 V           | 307 V | 696 V   |
| <b>PG4501-240-3HLD 120/240 VAC Three Phase High Leg Delta</b> | 115%                  | 150 kA   | 150 kA | 150 kA | 150 kA | 300 kA                 | 362 V / (632 V)   | 334 V / (664 V) | 307 V | 811 V   |
| <b>PG4501-480-3Y 277/480 VAC Three Phase Wye</b>              | 115%                  | 150 kA   | 150 kA | 150 kA | 150 kA | 300 kA                 | 706 V   | 378 V           | 665 V | 1,348 V |
| <b>PG4501-480-3D 480 VAC Three Phase Delta</b>                | 115%                  | —  | 150 kA | —      | 150 kA | 300 kA                 | —   | 1,149 V         | —     | 1,240 V |
| <b>PG4501-600-3Y 347/600 VAC Three Phase Wye</b>              | 115%                  | 150 kA   | 150 kA | 150 kA | 150 kA | 300 kA                 | 938 V   | 905 V           | 932 V | 1,759 V |
| <b>PG4501-600-3D 600 VAC Three Phase Delta</b>                | 115%                  | —  | 150 kA | —      | 150 kA | 300 kA                 | —   | 1,500 V         | —     | 1,583 V |

#### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Surge Suppression System - PG4000 Series.....

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- Nema 3R Style Enclosure
- Redundant Protection per mode
- Safety Interlocked Disconnect
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights
- Form C Contacts
- Intermatic Thermal Monitoring System
- Digital Surge Counter
- Audible Alarm

| Intermatic Model       | MCOV <sup>1</sup><br>L-G | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |        |        |        |        | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |       |         |  |
|------------------------|--------------------------|---|--------|--------|--------|--------|------------------------|--|-------|---------|--|
|                        |                          | L-N   | L-G    | N-G    | L-L    | L-N    |                        | L-G  | N-G   | L-L     |  |
| <b>PG4001-240-2S</b>   | <b>120/240 VAC</b>       | <b>Single Phase (split)</b>                                     |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | 125 kA  | 125 kA | 125 kA | 125 kA | 250 kA | 362 V                  | 334 V  | 307 V | 696 V   |  |
| <b>PG4001-208-3Y</b>   | <b>120/208 VAC</b>       | <b>Three Phase Wye</b>  |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | 125 kA  | 125 kA | 125 kA | 125 kA | 250 kA | 362 V                  | 334 V  | 307 V | 696 V   |  |
| <b>PG4001-240-3HLD</b> | <b>120/240 VAC</b>       | <b>Three Phase High Leg Delta</b>                               |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | 125 kA  | 125 kA | 125 kA | 125 kA | 250 kA | 362 V /<br>(632 V)     | 334 V /<br>(664 V)   | 307 V | 811 V   |  |
| <b>PG4001-480-3Y</b>   | <b>277/480 VAC</b>       | <b>Three Phase Wye</b>  |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | 125 kA  | 125 kA | 125 kA | 125 kA | 250 kA | 706 V                  | 678 V  | 665 V | 1,348 V |  |
| <b>PG4001-480-3D</b>   | <b>480 VAC</b>           | <b>Three Phase Delta</b>  |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | —   | 125 kA | —      | 125 kA | 250 kA | —                      | 1,149 V  | —     | 1,240 V |  |
| <b>PG4001-600-3Y</b>   | <b>347/600 VAC</b>       | <b>Three Phase Wye</b>  |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | 125 kA  | 125 kA | 125 kA | 125 kA | 250 kA | 908 V                  | 905 V  | 932 V | 1,759 V |  |
| <b>PG4001-600-3D</b>   | <b>600 VAC</b>           | <b>Three Phase Delta</b>  |        |        |        |        |                        |  |       |         |  |
|                        | 115%                     | —   | 125 kA | —      | 125 kA | 250 kA | —                      | 1,500 V  | —     | 1,583 V |  |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



The PG4000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 28.66"H x 15.11"W x 8.05"D  
Weight: 65 lbs.

# Surge Suppression System - PG100 Series.....

The PG100 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 16.0"H x 20.0"W x 6.0"D  
Weight: 40 lbs.

## Integral Diagnostics:

- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

## Features:

- Panel Extension design for mounting above or below 20" wide panel
- Available wiring space on each side for branch circuit or main input conductors
- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode, replaceable master module
- Integral 200 KAIC fusing and thermal protection
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 12 Style Enclosure
- Lugs accept #10 to #2 AWG
- Available with flush mount cover PGI-FMP
- 10 year product warranty

| Intermatic Model      | MCOV <sup>1</sup><br>L-G | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |        |        |        |        | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |       |         |  |
|-----------------------|--------------------------|---|--------|--------|--------|--------|------------------------|--|-------|---------|--|
|                       |                          | L-N   | L-G    | N-G    | L-L    | L-N    |                        | L-G  | N-G   | L-L     |  |
| <b>PG100-240-2S</b>   | <b>120/240 VAC</b>       | <b>Single Phase (split)</b>                                     |        |        |        |        |                        |  |       |         |  |
|                       | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 318 V                  | 312 V  | 282 V | 583 V   |  |
| <b>PG100-208-3Y</b>   | <b>120/208 VAC</b>       | <b>Three Phase Wye</b>  |        |        |        |        |                        |  |       |         |  |
|                       | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 318 V                  | 312 V  | 282 V | 583 V   |  |
| <b>PG100-240-3HLD</b> | <b>120/240 VAC</b>       | <b>Single Phase (split)</b>                                     |        |        |        |        |                        |  |       |         |  |
|                       | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 323 V /<br>(583 V)     | 329 V /<br>(664 V)   | 296 V | 845 V   |  |
| <b>PG100-480-3Y</b>   | <b>277/480 VAC</b>       | <b>Three Phase Wye</b>  |        |        |        |        |                        |  |       |         |  |
|                       | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 734 V                  | 713 V  | 693 V | 1,370 V |  |
| <b>PG100-480-3D</b>   | <b>480 VAC</b>           | <b>Three Phase Delta</b>  |        |        |        |        |                        |  |       |         |  |
|                       | 115%                     | —   | 100 kA | —      | 100 kA | 200 kA | —                      | 1,019 V  | —     | 1,140 V |  |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



# ..... Surge Suppression System - PG3500 Series



The PG3500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 28.66"H x 15.11"W x 8.05"D  
Weight: 60 lbs.

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- Nema 3R Style Enclosure
- Redundant Protection per mode
- Safety Interlocked Disconnect
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Lugs accept #10 to #2 AWG
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- Audible Alarm
- Form C Contacts

| Intermatic Model  | MCOV <sup>1</sup><br>L-G | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |        |        |        |        | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |       |         |  |
|---|--------------------------|---|--------|--------|--------|--------|------------------------|--|-------|---------|--|
|   |                          | L-N   | L-G    | N-G    | L-L    | L-N    |                        | L-G  | N-G   | L-L     |  |
| <b>PG3500-240-2S 120/240 VAC Single Phase (split)</b>         | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 362 V                  | 334 V  | 307 V | 696 V   |  |
| <b>PG3500-208-3Y 120/208 VAC Three Phase Wye</b>              | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 362 V                  | 334 V  | 307 V | 696 V   |  |
| <b>PG3500-240-3HLD 120/240 VAC Three Phase High Leg Delta</b> | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 362 V /<br>(632 V)     | 334 V /<br>(664 V)   | 307 V | 811 V   |  |
| <b>PG3500-480-3Y 277/480 VAC Three Phase Wye</b>              | 115%                     | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 706 V                  | 678 V  | 665 V | 1,348 V |  |
| <b>PG3500-480-3D 480 VAC Three Phase Delta</b>                | 115%                     | —   | 100 kA | —      | 100 kA | 200 kA | —                      | 1,149 V  | —     | 1,240 V |  |
| <b>PG3500-600-3Y 347/600 VAC Three Phase Wye</b>              | 4115%                    | 100 kA  | 100 kA | 100 kA | 100 kA | 200 kA | 938 V                  | 905 V  | 932 V | 1,759 V |  |
| <b>PG3500-600-3D 600 VAC Three Phase Delta</b>                | 115%                     | —   | 100 kA | —      | 100 kA | 200 kA | —                      | 1,500 V  | —     | 1,583 V |  |

## NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# ..... Surge Suppression System - PG80 Series



The PG80 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 16.0"H x 20.0"W x 6.0"D  
Weight: 40 lbs.

## Features:

- Panel Extension design for mounting above or below 20" wide panel
- Available wiring space on each side for branch circuit or main input conductors
- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode, replaceable master module
- Integral 200 KAIC fusing and thermal protection
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 12 Style Enclosure
- Lugs accept #10 to #2 AWG
- Available with flush mount cover PG1-FMP
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

| Intermatic Model  | MCOV <sup>1</sup><br>L-G | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |       |       |       |        | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |       |         |  |
|---|--------------------------|---|-------|-------|-------|--------|------------------------|--|-------|---------|--|
|   |                          | L-N   | L-G   | N-G   | L-L   | L-N    |                        | L-G  | N-G   | L-L     |  |
| <b>PG80-240-2S 120/240 VAC Single Phase (split)</b>         | 115%                     | 80 kA   | 80 kA | 80 kA | 80 kA | 160 kA | 318 V                  | 312 V  | 282 V | 583 V   |  |
| <b>PG80-208-3Y 120/208 VAC Three Phase Wye</b>              | 115%                     | 80 kA   | 80 kA | 80 kA | 80 kA | 160 kA | 318 V                  | 312 V  | 282 V | 583 V   |  |
| <b>PG80-240-3HLD 120/240 VAC Three Phase High Leg Delta</b> | 115%                     | 80 kA   | 80 kA | 80 kA | 80 kA | 160 kA | 323 V<br>(583 V)       | 329 V<br>(664 V)   | 296 V | 845 V   |  |
| <b>PG80-480-3Y 277/480 VAC Three Phase Wye</b>              | 115%                     | 80 kA   | 80 kA | 80 kA | 80 kA | 160 kA | 734 V                  | 713 V  | 693 V | 1,370 V |  |
| <b>PG80-480-3D 480 VAC Three Phase Delta</b>                | 115%                     | —   | 80 kA | —     | 80 kA | 160 kA | —                      | 1,019 V  | —     | 1,140 V |  |

## NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Surge Suppression System - PG3000 Series .....

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- 40 kA Brute Force MOVs
- Thermally Protected MOVs for maximum safety
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- Fault Current Tested to 200 KAIC
- Easily Replaceable Master Surge Module
- Nema 3R Style Enclosure
- 10 year product warranty

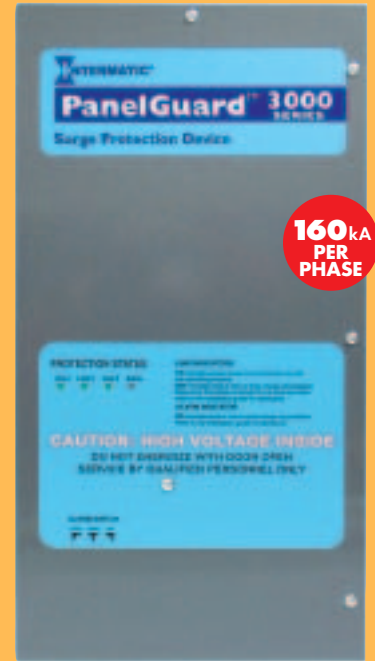
## Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- Audible Alarm
- Form C Contacts

| Intermatic Model       | MCOV <sup>1</sup> L-G | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                 |       |         |
|------------------------|-----------------------|--|-------|-------|-------|------------------------|---|-----------------|-------|---------|
|                        |                       | L-N  | L-G   | N-G   | L-L   |                        | L-N   | L-G             | N-G   | L-L     |
| <b>PG3000-240-2S</b>   | <b>120/240 VAC</b>    | <b>Single Phase (split)</b>                                  |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | 80 kA  | 80 kA | 80 kA | 80 kA | 160 kA                 | 362 V   | 334 V           | 307 V | 696 V   |
| <b>PG3000-208-3Y</b>   | <b>120/208 VAC</b>    | <b>Three Phase Wye</b>                                       |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | 80 kA  | 80 kA | 80 kA | 80 kA | 160 kA                 | 362 V   | 334 V           | 307 V | 696 V   |
| <b>PG3000-240-3HLD</b> | <b>120/240 VAC</b>    | <b>Three Phase High Leg Delta</b>                            |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | 80 kA  | 80 kA | 80 kA | 80 kA | 160 kA                 | 362 V / (632 V)   | 334 V / (664 V) | 307 V | 811 V   |
| <b>PG3000-480-3Y</b>   | <b>277/480 VAC</b>    | <b>Three Phase Wye</b>                                       |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | 80 kA  | 80 kA | 80 kA | 80 kA | 160 kA                 | 706 V   | 678 V           | 665 V | 1,348 V |
| <b>PG3000-480-3D</b>   | <b>480 VAC</b>        | <b>Three Phase Delta</b>                                     |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | —  | 80 kA | —     | 80 kA | 160 kA                 | —   | 1,149 V         | —     | 1,240 V |
| <b>PG3000-600-3Y</b>   | <b>347/600 VAC</b>    | <b>Three Phase Wye</b>                                       |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | 80 kA  | 80 kA | 80 kA | 80 kA | 160 kA                 | 938 V   | 905 V           | 932 V | 1,759 V |
| <b>PG3000-600-3D</b>   | <b>600 VAC</b>        | <b>Three Phase Delta</b>                                     |       |       |       |                        |   |                 |       |         |
|                        | 115%                  | —  | 80 kA | —     | 80 kA | 160 kA                 | —   | 1,500 V         | —     | 1,583 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



The PG3000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 28.66"H x 15.11"W x 8.05"D  
Weight: 60 lbs.

# Surge Suppression System - PG60 Series .....

The PG60 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 16.0"H x 20.0"W x 6.0"D  
Weight: 40 lbs.

## Integral Diagnostics:

- LED Indicator Lights for each mode
- Form C Contacts
- Audible Alarm

## Features:

- Panel Extension design for mounting above or below 20" wide panel
- Available wiring space on each side for branch circuit or main input conductors
- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode, replaceable master module
- Integral 200 KAIC fusing and thermal protection
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 12 Style Enclosure
- Lugs accept #10 to #2 AWG
- Available with flush mount cover PGI-FMP
- 10 year product warranty

| Intermatic Model     | MCOV <sup>1</sup> L-G | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |               |       |         |
|----------------------|-----------------------|--|-------|-------|-------|------------------------|---|---------------|-------|---------|
|                      |                       | L-N  | L-G   | N-G   | L-L   |                        | L-N   | L-G           | N-G   | L-L     |
| <b>PG60-240-2S</b>   | <b>120/240 VAC</b>    | <b>Single Phase (split)</b>                                  |       |       |       |                        |   |               |       |         |
|                      | 115%                  | 60 kA  | 60 kA | 60 kA | 60 kA | 120 kA                 | 318 V   | 312 V         | 282 V | 583 V   |
| <b>PG60-208-3Y</b>   | <b>120/208 VAC</b>    | <b>Three Phase Wye</b>                                       |       |       |       |                        |   |               |       |         |
|                      | 115%                  | 60 kA  | 60 kA | 60 kA | 60 kA | 120 kA                 | 318 V   | 312 V         | 282 V | 583 V   |
| <b>PG60-240-3HLD</b> | <b>120/240 VAC</b>    | <b>Single Phase High Leg Delta</b>                           |       |       |       |                        |   |               |       |         |
|                      | 115%                  | 60 kA  | 60 kA | 60 kA | 60 kA | 120 kA                 | 323 V (583 V)   | 329 V (664 V) | 296 V | 845 V   |
| <b>PG60-480-3Y</b>   | <b>277/480 VAC</b>    | <b>Three Phase Wye</b>                                       |       |       |       |                        |   |               |       |         |
|                      | 115%                  | 60 kA  | 60 kA | 60 kA | 60 kA | 120 kA                 | 734 V   | 713 V         | 693 V | 1,370 V |
| <b>PG60-480-3D</b>   | <b>480 VAC</b>        | <b>Three Phase Delta</b>                                     |       |       |       |                        |   |               |       |         |
|                      | 115%                  | —  | 60 kA | —     | 60 kA | 120 kA                 | —   | 1,019 V       | —     | 1,140 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



## ..... Surge Suppression System - PG2500 Series



**120 kA  
PER  
PHASE**

The PG2500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 16.47"H x 10.59"W x 4.9"D  
Weight: 28 lbs.

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 3R Style Enclosure
- Pre-wired with 40" of #10 AWG wire leads
- 10 year product warranty

### Integral Diagnostics:

- LED Indicator Lights
- Audible Alarm
- Intermatic Thermal Monitoring System
- Form C Contacts



**Flush Mount Plate IG1FMP-PG**

| Intermatic Model   | MCOV <sup>1</sup><br>L-G | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |        |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                    |       |         |
|--|--------------------------|---|--------|-------|-------|------------------------|--|--------------------|-------|---------|
|  |                          | L-N   | L-G    | N-G   | L-L   |                        | L-N  | L-G                | N-G   | L-L     |
| <b>IG1201SECA 120 VAC Single Phase</b>                   | 115%                     | 60 kA   | 60 kA  | 60 kA | —     | 120 kA                 | 349 V  | 374 V              | 310 V | —       |
| <b>IG2401SECA 120/240 VAC Single-Phase (Split)</b>       | 115%                     | 60 kA   | 60 kA  | 60 kA | 60 kA | 120 kA                 | 345 V  | 357 V              | 313 V | 589 V   |
| <b>IG2083YECA 120/208 VAC Three Phase Wye</b>            | 115%                     | 60 kA   | 60 kA  | 60 kA | 60 kA | 120 kA                 | 365 V  | 383 V              | 316 V | 599 V   |
| <b>IG2403DECA 120/240 VAC Three Phase High Leg Delta</b> | 115%                     | 60 kA   | 60 kA  | 60 kA | 60 kA | 120 kA                 | 367 V /<br>(584 V)   | 387 V /<br>(601 V) | 312 V | 620 V   |
| <b>IG4803YECA 277/480 VAC Three Phase Wye</b>            | 115%                     | 60 kA   | 60 kA  | 60 kA | 60 kA | 120 kA                 | 709 V  | 748 V              | 341 V | 1,216 V |
| <b>IG4803DECA 480 VAC Three Phase Delta</b>              | 115%                     | —   | 120 kA | —     | 60 kA | 180 kA                 | —  | 1,229 V            | —     | 1,189 V |

### NOTES:

<sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage

<sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1

<sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems

<sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

## ..... Surge Suppression System - PG2000 Series



**60 kA  
PER  
PHASE**

The PG2000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 16.47"H x 10.59"W x 4.9"D  
Weight: 28 lbs.

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 3R Style Enclosure
- Pre-wired with 40" of #10 AWG wire leads
- 10 year product warranty

### Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- Form C Contacts



**Flush Mount Plate IG1FMP-PG**

| Intermatic Model  | MCOV <sup>1</sup><br>L-G | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                    |       |         |
|---|--------------------------|---|-------|-------|-------|------------------------|--|--------------------|-------|---------|
|   |                          | L-N   | L-G   | N-G   | L-L   |                        | L-N  | L-G                | N-G   | L-L     |
| <b>IG1201ECS 120 VAC Single Phase</b>                   | 115%                     | 30 kA   | 30 kA | 30 kA | —     | 60 kA                  | 367 V  | 416 V              | 334 V | —       |
| <b>IG2401ECS 120/240 VAC Single-Phase (Split)</b>       | 115%                     | 30 kA   | 30 kA | 30 kA | 30 kA | 60 kA                  | 417 V  | 397 V              | 335 V | 639 V   |
| <b>IG2083ECY 120/208 VAC Three Phase Wye</b>            | 115%                     | 30 kA   | 30 kA | 30 kA | 30 kA | 60 kA                  | 383 V  | 407 V              | 331 V | 624 V   |
| <b>IG2403ECD 120/240 VAC Three Phase High Leg Delta</b> | 115%                     | 30 kA   | 30 kA | 30 kA | 30 kA | 60 kA                  | 384 V /<br>(608 V)   | 400 V /<br>(617 V) | 323 V | 632 V   |
| <b>IG4803ECY 277/480 VAC Three Phase Wye</b>            | 115%                     | 30 kA   | 30 kA | 30 kA | 30 kA | 60 kA                  | 776 V  | 785 V              | 348 V | 1,252 V |
| <b>IG4803ECD 480 VAC Three Phase Delta</b>              | 115%                     | —   | 60 kA | —     | 30 kA | 90 kA                  | —  | 1,275 V            | —     | 1,235 V |

### NOTES:

<sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage

<sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1

<sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems

<sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Surge Suppression System - PG40 Series .....

The PG40 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 11.0"H x 5.875"W x 3.75"D  
Weight: 22 lbs.

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- Available with flush mount cover PG2-FMP
- 10 year product warranty

## Integral Diagnostics:

- LED indicator lights for each mode
- Form C Contacts
- Audible alarm

**NEW**



**80 kA PER PHASE**

| Intermatic Model     | MCOV <sup>1</sup> L-G                         | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                  |                  |       |         |
|----------------------|---|--|-------|-------|-------|------------------------|---|------------------|------------------|-------|---------|
|                      |   | L-N  | L-G   | N-G   | L-L   |                        | L-N   | L-G              | N-G              | L-L   |         |
| <b>PG40-240-25</b>   | <b>120/240 VAC Single Phase (split)</b>       | 115%   | 40 kA | 40 kA | 40 kA | 40 kA                  | 80 kA   | 321 V            | 324 V            | 344 V | 609 V   |
| <b>PG40-208-3Y</b>   | <b>120/208 VAC Three Phase Wye</b>            | 115%   | 40 kA | 40 kA | 40 kA | 40 kA                  | 80 kA   | 321 V            | 324 V            | 344 V | 609 V   |
| <b>PG40-240-3HLD</b> | <b>120/240 VAC Three Phase High Leg Delta</b> | 115%   | 40 kA | 40 kA | 40 kA | 40 kA                  | 80 kA   | 321 V<br>(592 V) | 324 V<br>(591 V) | 344 V | 857 V   |
| <b>PG40-480-3Y</b>   | <b>277/480 VAC Three Phase Wye</b>            | 115%   | 40 kA | 40 kA | 40 kA | 40 kA                  | 80 kA   | 754 V            | 767 V            | 786 V | 1,410 V |
| <b>PG40-480-3D</b>   | <b>480 VAC Three Phase Delta</b>              | 115%   | —     | 40 kA | —     | 40 kA                  | 80 kA   | —                | 1,178 V          | —     | 1,196 V |

## NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Surge Suppression System EH Series .....

The EH Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 7.5"H x 4.25"W x 4.0"D  
Weight: 5.5 lbs.

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- 200 KAIC Surge Rated Fuses
- Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – 20 to 30 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition Listed, cULus
- Nema 12 Style Enclosure
- Pre-wired with 30" of #10 AWG wire leads
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System

| Intermatic Model | MCOV <sup>1</sup> L-G                         | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                    |                    |       |         |
|------------------|---|--|-------|-------|-------|------------------------|---|--------------------|--------------------|-------|---------|
|                  |   | L-N  | L-G   | N-G   | L-L   |                        | L-N   | L-G                | N-G                | L-L   |         |
| <b>IG1201EH</b>  | <b>120 VAC Single Phase</b>                   | 115%   | 26 kA | 26 kA | 26 kA | —                      | 52 kA   | 419 V              | 435 V              | 416 V | —       |
| <b>IG2401EH</b>  | <b>120/240 VAC Single Phase (split)</b>       | 115%   | 26 kA | 26 kA | 26 kA | 26 kA                  | 52 kA   | 376 V              | 389 V              | 365 V | 635 V   |
| <b>IG2083YEH</b> | <b>120/208 VAC Three Phase Wye</b>            | 115%   | 26 kA | 26 kA | 26 kA | 26 kA                  | 52 kA   | 392 V              | 385 V              | 375 V | 644 V   |
| <b>IG2403DEH</b> | <b>120/240 VAC Three Phase High Leg Delta</b> | 115%   | 26 kA | 26 kA | 26 kA | 26 kA                  | 52 kA   | 392 V /<br>(627 V) | 400 V /<br>(631 V) | 373 V | 661 V   |
| <b>IG4803YEH</b> | <b>277/480 VAC Three Phase Wye</b>            | 115%   | 26 kA | 26 kA | 26 kA | 26 kA                  | 52 kA   | 791 V              | 775 V              | 396 V | 1,240 V |
| <b>IG4803DEH</b> | <b>480 VAC Three Phase Delta</b>              | 115%   | —     | 52 kA | —     | 26 kA                  | 78 kA   | —                  | 1,194 V            | —     | 1,247 V |

## NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



**52 kA PER PHASE**



**Flush Mount Plate IG1FMP-H**

## Surge Suppression System - PG20 Series



**NEW**

**40 kA  
PER  
PHASE**

The PG20 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 11.0"H x 5.875"W x 3.75"D

Weight: 22 lbs.

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Redundant Protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI Filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- Available with flush mount cover PG2-FMP
- 10 year product warranty

### Integral Diagnostics:

- LED indicator lights for each mode
- Form C Contacts
- Audible alarm



**Flush Mount Plate IG1FMP-PG**

| Intermatic Model     | MCOV <sup>1</sup><br>L-G                      | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |       |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                  |       |         |
|----------------------|---|---|-------|-------|-------|-------|------------------------|--|------------------|-------|---------|
|                      |   | L-N   | L-G   | N-G   | L-L   | L-N   |                        | L-G  | N-G              | L-L   |         |
| <b>PG20-240-25</b>   | <b>120/240 VAC Single Phase (split)</b>       | 115%  | 20 kA | 20 kA | 20 kA | 20 kA | 40 kA                  | 321 V  | 324 V            | 344 V | 609 V   |
| <b>PG20-208-3Y</b>   | <b>120/208 VAC Three Phase Wye</b>            | 115%  | 20 kA | 20 kA | 20 kA | 20 kA | 40 kA                  | 321 V  | 324 V            | 344 V | 609 V   |
| <b>PG20-240-3HLD</b> | <b>120/240 VAC Three Phase High Leg Delta</b> | 115%  | 20 kA | 20 kA | 20 kA | 20 kA | 40 kA                  | 321 V<br>(592 V)   | 324 V<br>(591 V) | 344 V | 857 V   |
| <b>PG20-480-3Y</b>   | <b>277/480 VAC Three Phase Wye</b>            | 115%  | 20 kA | 20 kA | 20 kA | 20 kA | 40 kA                  | 754 V  | 767 V            | 786 V | 1,410 V |
| <b>PG20-480-3D</b>   | <b>480 VAC Three Phase Delta</b>              | 115%  | —     | 20 kA | —     | 20 kA | 40 kA                  | —  | 1,178 V          | —     | 1,196 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

## Surge Suppression System - LH Series



**26 kA  
PER  
PHASE**

The LH Series is a hardwired suppression device (installed in parallel) and recommended for ANSI/IEEE Category locations for A and B.

Dimensions: 7.5"H x 4.25"W x 4.0"D

Weight: 5.5 lbs.

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- 200 KAIC Surge Rated Fuses
- Thermally Protected MOVs for maximum safety
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – 20 to 30 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition, cULus
- Nema 12 Style Enclosure
- Pre-wired with 30" of #10 AWG wire leads
- 10 year product warranty

### Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System

| Intermatic Model | MCOV <sup>1</sup><br>L-G                      | Surge Current Capacity <sup>2</sup><br>(8 x 20 usec) (per mode) |       |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |                    |       |         |
|------------------|---|---|-------|-------|-------|-------|------------------------|--|--------------------|-------|---------|
|                  |   | L-N   | L-G   | N-G   | L-L   | L-N   |                        | L-G  | N-G                | L-L   |         |
| <b>IG1201LH</b>  | <b>120 VAC Single Phase</b>                   | 115%  | 13 kA | 13 kA | 13 kA | —     | 26 kA                  | 415 V  | 415 V              | 391 V | —       |
| <b>IG2401LH</b>  | <b>120/240 VAC Single Phase (split)</b>       | 115%  | 13 kA | 13 kA | 13 kA | 13 kA | 26 kA                  | 394 V  | 415 V              | 337 V | 663 V   |
| <b>IG2083LYH</b> | <b>120/208 VAC Three Phase Wye</b>            | 115%  | 13 kA | 13 kA | 13 kA | 13 kA | 26 kA                  | 414 V  | 412 V              | 374 V | 670 V   |
| <b>IG2403LDH</b> | <b>120/240 VAC Three Phase High Leg Delta</b> | 115%  | 13 kA | 13 kA | 13 kA | 13 kA | 26 kA                  | 414 V /<br>(655 V)   | 437 V /<br>(700 V) | 415 V | 700 V   |
| <b>IG4803LYH</b> | <b>277/480 VAC Three Phase Wye</b>            | 115%  | 13 kA | 13 kA | 13 kA | 13 kA | 26 kA                  | 798 V  | 798 V              | 413 V | 1,298 V |
| <b>IG4803LDH</b> | <b>480 VAC Three Phase Delta</b>              | 115%  | —     | 26 kA | —     | 13 kA | 39 kA                  | —  | 1,233 V            | —     | 1,289 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



**Flush Mount Plate IG1FMP-H**

An easy to use adapter plate is available for flush mounting of the LH Series.

Order Part Number IG1FMP-H

# Surge Suppression System - PG1500 Series .....

The PG1500 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 11.0"H x 5.875"W x 3.75"D

Weight: 22 lbs.

## Features:

- L-N, N-G protection modes (4 mode)
- Redundant protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- Available with flush mount cover PG2-FMP
- 10 year product warranty

## Integral Diagnostics:

- LED indicator lights for each mode
- Form C Contacts      • Audible alarm



**80 kA  
PER  
PHASE**

| Intermatic Model                                      | MCOV <sup>1</sup> L-G | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |         |       |         |
|---|-----------------------|--|-------|-------|-------|------------------------|---|---------|-------|---------|
|   |                       | L-N  | L-G   | N-G   | L-L   |                        | L-N   | L-G     | N-G   | L-L     |
| <b>PG1500-240-2S</b> 120/240 VAC Single Phase (split) | 115%                  | 80 kA  | —     | 40 kA | 80 kA | 80 kA                  | 307 V   | 609 V   | 364 V | 598 V   |
| <b>PG1500-208-3Y</b> 120/208 VAC Three Phase Wye      | 115%                  | 80 kA  | —     | 40 kA | 80 kA | 80 kA                  | 307 V   | 609 V   | 364 V | 598 V   |
| <b>PG1500-480-3Y</b> 277/480 VAC Three Phase Wye      | 115%                  | 80 kA  | —     | 40 kA | 80 kA | 80 kA                  | 716 V   | 1,460 V | 790 V | 1,390 V |
| <b>PG1500-480-3D</b> 480 VAC Three Phase Delta        | 115%                  | —  | 80 kA | —     | 80 kA | 160 kA                 | —   | 1,178 V | —     | 1,196 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Surge Suppression System - PG1000 Series .....

The PG1000 Series is a hardwired suppression device (installed in parallel) and recommended for all ANSI/IEEE Category locations.

Dimensions: 11.0"H x 5.875"W x 3.75"D

Weight: 22 lbs.

## Features:

- L-N, N-G protection modes (4 mode)
- Redundant protection per mode
- Integral 200 KAIC fusing and thermal protection
- Thermally protected MOVs for maximum safety
- Fault current tested to 200 KAIC
- EMI/RFI filtration – Up to 54 dB from 20 kHz to 100 MHz
- UL1449, 2nd Edition and UL1283 Listed, cULus
- Nema 4 style enclosure
- Pre-wired with 30" of #10 AWG wire leads
- Available with flush mount cover PG2-FMP
- 10 year product warranty

## Integral Diagnostics:

- LED indicator lights for each mode
- Form C Contacts      • Audible alarm



**40 kA  
PER  
PHASE**

| Intermatic Model                                      | MCOV <sup>1</sup> L-G | Surge Current Capacity <sup>2</sup> (8 x 20 usec) (per mode) |       |       |       | Per Phase <sup>3</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>4</sup> |         |       |         |
|---|-----------------------|--|-------|-------|-------|------------------------|---|---------|-------|---------|
|   |                       | L-N  | L-G   | N-G   | L-L   |                        | L-N   | L-G     | N-G   | L-L     |
| <b>PG1000-240-2S</b> 120/240 VAC Single Phase (split) | 115%                  | 40 kA  | —     | 40 kA | 40 kA | 40 kA                  | 307 V   | 609 V   | 364 V | 598 V   |
| <b>PG1000-208-3Y</b> 120/208 VAC Three Phase Wye      | 115%                  | 40 kA  | —     | 40 kA | 40 kA | 40 kA                  | 307 V   | 609 V   | 364 V | 598 V   |
| <b>PG1000-480-3Y</b> 277/480 VAC Three Phase Wye      | 115%                  | 40 kA  | —     | 40 kA | 40 kA | 40 kA                  | 716 V   | 1,460 V | 790 V | 1,390 V |
| <b>PG1000-480-3D</b> 480 VAC Three Phase Delta        | 115%                  | —  | 40 kA | —     | 40 kA | 80 kA                  | —   | 1,178 V | —     | 1,196 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percentage of nominal voltage
- <sup>2</sup> All surge currents listed above are independently tested and verified per NEMA LS-1
- <sup>3</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>4</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

## There are four main factors to consider when specifying the appropriate device for your facility:

1. What is the amperage (size) of the Switchboard or Panelboard at the point of installation?

2. What is the geographic location of the facility? (i.e. the relative level of lightning exposure and utility grid switching activity)

3. What is the density of electronic equipment and how critical is the application? (i.e. a 7 x 24 computer data center would require a higher level of protection than a retail store)

4. What is the level of transient and noise producing loads within your facility? (i.e. a heavy industrial manufacturing environment or a densely populated computer data center would require a higher level of protection)

### NOTES:

- Pick appropriate model to match the voltage of your Service Entrance, Distribution Panel or Panelboard.
- See individual product pages for other available voltages.
- A facility without any Service Entrance protection would warrant a higher level of protection at downstream locations.

## Product Selection Chart Modular Models

The following guidelines can be followed for Intermatic products:

### Choose Model by Voltage

| Location | 480 VAC Delta | 277/480 VAC Wye | 120/208 VAC Wye | Refer to Page |
|----------|---------------|-----------------|-----------------|---------------|
|----------|---------------|-----------------|-----------------|---------------|

#### Large Service Entrance 2000 to 4000 Amp

|        |               |               |               |    |
|--------|---------------|---------------|---------------|----|
| Best   | SG320K-480-3D | SG320K-480-3Y | SG320K-208-3Y | 54 |
| Better | SG240K-480-3D | SG240K-480-3Y | SG240K-208-3Y | 55 |
| Good   | UG40A4803D    | UG40A4803Y    | UG40A2083Y    | 56 |

#### Small Service Entrance Less than 1600 Amp

|        |               |               |               |    |
|--------|---------------|---------------|---------------|----|
| Best   | SG240K-480-3D | SG240K-480-3Y | SG240K-208-3Y | 55 |
| Better | SG160K-480-3D | SG160K-480-3Y | SG160K-208-3Y | 55 |
| Good   | UG30A4803D    | UG30A4803Y    | UG30A2083Y    | 56 |

#### Distribution Panel 1000 to 1600 Amp

|        |               |               |               |    |
|--------|---------------|---------------|---------------|----|
| Best   | SG160K-480-3D | SG160K-480-3Y | SG160K-208-3Y | 55 |
| Better | UG30A4803D    | UG30A4803Y    | UG30A2083Y    | 56 |
| Good   | UG28A4803D    | UG28A4803Y    | UG28A2083Y    | 57 |

#### Panelboard 60 to 400 Amp

|        |            |            |            |    |
|--------|------------|------------|------------|----|
| Best   | UG30A4803D | UG30A4803Y | UG30A2083Y | 56 |
| Better | UG28A4803D | UG28A4803Y | UG28A2083Y | 57 |

## Modular Protection System SG320 Series

### Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 50 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- Nema 12 Enclosure

- 40 kA Brute Force MOVs
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, UL and cUL
- 5 year product warranty

### Installation:

- Recommended installation is with 30-100 Amp breaker

### Integral Diagnostics:

- LED Indicator Lights
- Audible Alarm
- Form C Contacts
- Digital Surge Counter



The SG320 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one bolt-on module per phase for easy maintenance.

Dimensions: 16" H x 14" W x 6" D

Weight: 29 lbs.

### REPLACEMENT MODULE INFORMATION

| System Number:  | Quantity & Part Number               |
|-----------------|--------------------------------------|
| SG320K-208-3Y   | (3) SG160-120V-M                     |
| SG320K-240-3HLD | (2) SG160-120V-M<br>(1) SG160-240V-M |
| SG320K-480-34   | (3) SG160-277V-M                     |
| SG320K-480-3D   | (3) SG160-480V-M                     |

| Intermatic Model  | MCOV <sup>1</sup><br>L-G | Surge Current Capacity<br>(8 x 20 usec) (per mode) |        |        |        |        | Per Phase <sup>2</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |         |         |  |
|---|--------------------------|--|--------|--------|--------|--------|------------------------|--|---------|---------|--|
|   |                          | L-N  | L-G    | N-G    | L-L    | L-N    |                        | L-G  | N-G     | L-L     |  |
| <b>SG320K-208-3Y 120/208 VAC Three Phase Wye</b>              | 115%                     | 160 kA   | 160 kA | 120 kA | 160 kA | 320 kA | 369 V                  | 374 V  | 674 V   | 776 V   |  |
| <b>SG320K-240-3HLD 120/240 VAC Three Phase High Leg Delta</b> | 115%                     | 160 kA   | 160 kA | 120 kA | 160 kA | 320 kA | 372 V /<br>(765 V)     | 370 V /<br>(715 V)   | 668 V   | 788 V   |  |
| <b>SG320K-480-3Y 277/480 VAC Three Phase Wye</b>              | 115%                     | 160 kA   | 160 kA | 120 kA | 160 kA | 320 kA | 744 V                  | 748 V  | 1,279 V | 1,282 V |  |
| <b>SG320K-480-3D 480 VAC Three Phase Delta</b>                | 115%                     | —  | 160 kA | —      | 160 kA | 320 kA | —                      | 1,290 V  | —       | 2,480 V |  |

### NOTES:

<sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage

<sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems

<sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Modular Protection System SG240 Series .....

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 50 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- Nema 12 Enclosure
- 40 kA Brute Force MOVs
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, UL and cUL
- 5 year product warranty

## Installation:

- Recommended installation is with 30-100 Amp breaker

## Integral Diagnostics:

- LED Indicator Lights
- Audible Alarm
- Form C Contacts
- Digital Surge Counter



The SG240 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one bolt-on module per phase for easy maintenance.

Dimensions: 16"H x 14"W x 6"D  
Weight: 28 lbs.

## REPLACEMENT MODULE INFORMATION

| System Number:  | Quantity & Part Number               |
|-----------------|--------------------------------------|
| SG240K-208-3Y   | (3) SG120-120V-M                     |
| SG240K-240-3HLD | (2) SG120-120V-M<br>(1) SG120-240V-M |
| SG240K-480-3Y   | (3) SG120-277V-M                     |
| SG240K-480-3D   | (3) SG120-480V-M                     |

| Intermatic Model       | MCOV <sup>1</sup><br>L-G | Surge Current Capacity<br>(8 x 20 usec) (per mode) |        |        |        | Per Phase <sup>2</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |                    |         |         |  |
|------------------------|--------------------------|--|--------|--------|--------|------------------------|--|--------------------|---------|---------|--|
|                        |                          | L-N  | L-G    | N-G    | L-L    |                        | L-N  | L-G                | N-G     | L-L     |  |
| <b>SG240K-208-3Y</b>   | <b>120/208 VAC</b>       | <b>Three Phase Wye</b>                             |        |        |        |                        |  |                    |         |         |  |
|                        | 115%                     | 120 kA   | 120 kA | 120 kA | 120 kA | 240 kA                 | 378 V  | 375 V              | 674 V   | 780 V   |  |
| <b>SG240K-240-3HLD</b> | <b>120/240 VAC</b>       | <b>Three Phase High Leg Delta</b>                  |        |        |        |                        |  |                    |         |         |  |
|                        | 115%                     | 120 kA   | 120 kA | 120 kA | 120 kA | 240 kA                 | 370 V /<br>(761 V)   | 370 V /<br>(715 V) | 668 V   | 788 V   |  |
| <b>SG240K-480-3Y</b>   | <b>277/480 VAC</b>       | <b>Three Phase Wye</b>                             |        |        |        |                        |  |                    |         |         |  |
|                        | 115%                     | 120 kA   | 120 kA | 120 kA | 120 kA | 240 kA                 | 768 V  | 752 V              | 1,289 V | 1,287 V |  |
| <b>S240K-480-3D</b>    | <b>480 VAC</b>           | <b>Three Phase Delta</b>                           |        |        |        |                        |  |                    |         |         |  |
|                        | 115%                     | —  | 120 kA | —      | 120 kA | 240 kA                 | —  | 1,280 V            | —       | 2,465 V |  |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage  
<sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems  
<sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Modular Protection System SG160 Series .....

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- EMI/RFI Filtration – Up to 50 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- Nema 12 Enclosure
- 40 kA Brute Force MOVs
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, UL and cUL
- 5 year product warranty

## Installation:

- Recommended installation is with 30-100 Amp breaker

## Integral Diagnostics:

- LED Indicator Lights
- Audible Alarm
- Form C Contacts
- Digital Surge Counter



The SG160 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one bolt-on module per phase for easy maintenance.

Dimensions: 16"H x 14"W x 6"D  
Weight: 27 lbs.

## REPLACEMENT MODULE INFORMATION

| System Number:  | Quantity & Part Number             |
|-----------------|------------------------------------|
| SG160K-208-3Y   | (3) SG80-120V-M                    |
| SG160K-240-3HLD | (2) SG80-120V-M<br>(1) SG80-240V-M |
| SG160K-480-3Y   | (3) SG80-277V-M                    |
| SG160K-480-3D   | (3) SG80-480V-M                    |

| Intermatic Model       | MCOV <sup>1</sup><br>L-G | Surge Current Capacity<br>(8 x 20 usec) (per mode) |       |        |       | Per Phase <sup>2</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |                    |         |         |  |
|------------------------|--------------------------|--|-------|--------|-------|------------------------|--|--------------------|---------|---------|--|
|                        |                          | L-N  | L-G   | N-G    | L-L   |                        | L-N  | L-G                | N-G     | L-L     |  |
| <b>SG160K-208-3Y</b>   | <b>120/208 VAC</b>       | <b>Three Phase Wye</b>                             |       |        |       |                        |  |                    |         |         |  |
|                        | 115%                     | 80 kA  | 80 kA | 120 kA | 80 kA | 160 kA                 | 385 V  | 377 V              | 679 V   | 784 V   |  |
| <b>SG160K-240-3HLD</b> | <b>120/240 VAC</b>       | <b>Three Phase High Leg Delta</b>                  |       |        |       |                        |  |                    |         |         |  |
|                        | 115%                     | 80 kA  | 80 kA | 120 kA | 80 kA | 160 kA                 | 375 V /<br>(768 V)   | 378 V /<br>(765 V) | 669 V   | 785 V   |  |
| <b>SG160K-480-3Y</b>   | <b>277/480 VAC</b>       | <b>Three Phase Wye</b>                             |       |        |       |                        |  |                    |         |         |  |
|                        | 115%                     | 80 kA  | 80 kA | 120 kA | 80 kA | 160 kA                 | 774 V  | 762 V              | 1,278 V | 1,255 V |  |
| <b>SG160K-480-3D</b>   | <b>480 VAC</b>           | <b>Three Phase Delta</b>                           |       |        |       |                        |  |                    |         |         |  |
|                        | 115%                     | —  | 80 kA | —      | 80 kA | 160 kA                 | —  | 1,290 V            | —       | 2,474 V |  |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage  
<sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems  
<sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Modular Protection System UG40 Series



90 kA  
PER  
PHASE

The UG40 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one module per phase for easy maintenance.

Dimensions: 20.75"H x 10.75"W x 4.75"D  
Weight: 23 lbs.

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Integral Disconnect
- Redundant Protection per mode
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition, cULus
- Fault Current Tested to 200 KAIC
- 200 KAIC Surge Rated Fuses
- EMI/RFI Filtration – 20 to 30 dB from 20 kHz to 100 MHz
- Replaceable Modules for low MTTR
- Nema 3R Style Enclosure
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System
- Audible Alarm
- Form C Contacts

### REPLACEMENT MODULE INFORMATION

| System Number: | Quantity & Part Number       |
|----------------|------------------------------|
| UG40A2401S     | (2) UG41120A                 |
| UG40A2083Y     | (3) UG41120B                 |
| UG40A2403D     | (2) UG41120A<br>(1) UG41208A |
| UG40A2403G     | (3) UG41240A                 |
| UG40A4803Y     | (3) UG41277A                 |
| UG40A4803D     | (3) UG41480A                 |

| Intermatic Model  | MCOV <sup>1</sup> L-G                         | Surge Current Capacity (8 x 20 usec) (per mode) |       |        |       | Per Phase <sup>2</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |                 |       |         |
|-------------------|---|---|-------|--------|-------|------------------------|---|-----------------|-------|---------|
|                   |   | L-N   | L-G   | N-G    | L-L   |                        | L-N   | L-G             | N-G   | L-L     |
| <b>UG40A2401S</b> | <b>120/240VAC Single Phase (split)</b>        |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 90 kA  | 45 kA | 90 kA                  | 491 V   | 497 V           | 412 V | 703 V   |
| <b>UG40A2083Y</b> | <b>120/208 VAC Three Phase Wye</b>            |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 135 kA | 45 kA | 90 kA                  | 476 V   | 484 V           | 404 V | 688 V   |
| <b>UG40A2403D</b> | <b>120/240 VAC Three Phase High Leg Delta</b> |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 135 kA | 45 kA | 90 kA                  | 467 V / (709 V)   | 492 V / (693 V) | 408 V | 728 V   |
| <b>UG40A2403G</b> | <b>240 VAC Three Phase Delta</b>              |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | —   | 90 kA | —      | 45 kA | 125 kA                 | —   | 663 V           | —     | 723 V   |
| <b>UG40A4803Y</b> | <b>277/480 VAC Three Phase Wye</b>            |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 135 kA | 45 kA | 90 kA                  | 839 V   | 859 V           | 780 V | 1,311 V |
| <b>UG40A4803D</b> | <b>480 VAC Three Phase Delta</b>              |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | —   | 90 kA | —      | 45 kA | 135 kA                 | —   | 1,248 V         | —     | 1,297 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage
- <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Modular Protection System UG30 Series



90 kA  
PER  
PHASE

The UG30 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one module per phase for easy maintenance.

Dimensions: 12.88"H x 10.94"W x 4.65"D  
Weight: 15 lbs.

## Features:

- All mode Protection (L-N, L-G, N-G, L-L)
- Fault Current Tested to 200 KAIC
- 200 KAIC Surge Rated Fuses
- Redundant Protection per mode
- EMI/RFI Filtration – 20 to 30 dB from 20 kHz to 100 MHz
- Thermally Protected MOVs for maximum safety
- Replaceable Modules for low MTTR
- UL1449, 2nd Edition, cULus
- Nema 3R Style Enclosure
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System



Flush Mount Plate UG1-FMP

### REPLACEMENT MODULE INFORMATION

| System Number: | Quantity & Part Number       |
|----------------|------------------------------|
| UG30A2401S     | (2) UG29120A                 |
| UG30A2083Y     | (3) UG29120A                 |
| UG30A2403D     | (2) UG29120A<br>(1) UG29208A |
| UG30A2403G     | (3) UG29240A                 |
| UG30A4803Y     | (3) UG29277A                 |
| UG30A4803D     | (3) UG29480A                 |

| Intermatic Model  | MCOV <sup>1</sup> L-G                         | Surge Current Capacity (8 x 20 usec) (per mode) |       |        |       | Per Phase <sup>2</sup> | UL 1449 Clamping Voltage 6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |                 |       |         |
|-------------------|---|---|-------|--------|-------|------------------------|---|-----------------|-------|---------|
|                   |   | L-N   | L-G   | N-G    | L-L   |                        | L-N   | L-G             | N-G   | L-L     |
| <b>UG30A2401S</b> | <b>120/240 VAC Single Phase (split)</b>       |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 90 kA  | 45 kA | 90 kA                  | 405 V   | 433 V           | 389 V | 613 V   |
| <b>UG30A2083Y</b> | <b>120/208 VAC Three Phase Wye</b>            |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 135 kA | 45 kA | 90 kA                  | 405 V   | 433 V           | 389 V | 613 V   |
| <b>UG30A2403D</b> | <b>120/240 VAC Three Phase High Leg Delta</b> |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 135 kA | 45 kA | 90 kA                  | 405 V / (649 V)   | 433 V / (615 V) | 389 V | 613 V   |
| <b>UG30A2403G</b> | <b>240 VAC Three Phase Delta</b>              |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | —   | 90 kA | —      | 45 kA | 135 kA                 | —   | 633 V           | —     | 627 V   |
| <b>UG30A4803Y</b> | <b>277/480 VAC Three Phase Wye</b>            |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | 45 kA   | 45 kA | 135 kA | 45 kA | 90 kA                  | 799 V   | 786 V           | 744 V | 1,277 V |
| <b>UG30A4803D</b> | <b>480 VAC Three Phase Delta</b>              |   |       |        |       |                        |   |                 |       |         |
|                   | 115%  | —   | 90 kA | —      | 45 kA | 135 kA                 | —   | 1,208 V         | —     | 1,211 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage
- <sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems
- <sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

# Modular Protection System UG28 Series .....

The UG28 Series is a modular hardwired suppression device and recommended for all ANSI/IEEE Category locations. Contains one module per phase for easy maintenance.

Dimensions: 12.88"H x 10.94"W x 4.65"D  
Weight: 15 lbs.

## Features:

- Nine mode Protection (L-N, L-G, L-L)
- Fault Current Tested to 200 KAIC
- 200 KAIC Surge Rated Fuses
- Redundant Protection per mode
- EMI/RFI Filtration – 20 to 30 dB from 20 kHz to 100 MHz
- Thermally Protected MOVs for maximum safety
- Replaceable Modules for low MTTR
- UL1449, 2nd Edition, cULus
- Nema 3R Style Enclosure
- 10 year product warranty

## Integral Diagnostics:

- LED Indicator Lights
- Intermatic Thermal Monitoring System



**Flush Mount Plate UG1-FMP**

| Intermatic Model  | MCOV <sup>1</sup><br>L-G | Surge Current Capacity<br>(8 x 20 usec) (per mode) |       |     |       | Per<br>Phase <sup>2</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |                    |     |         |
|-------------------|--------------------------|--|-------|-----|-------|---------------------------|--|--------------------|-----|---------|
|                   |                          | L-N  | L-G   | N-G | L-L   |                           | L-N  | L-G                | N-G | L-L     |
| <b>UG28A2401S</b> | <b>120/240 VAC</b>       | <b>Single Phase (split)</b>                        |       |     |       |                           |  |                    |     |         |
|                   | 115%                     | 45 kA  | 45 kA | —   | 45 kA | 90 kA                     | 405 V  | 433 V              | —   | 613 V   |
| <b>UG28A2083Y</b> | <b>120/208 VAC</b>       | <b>Three Phase Wye</b>                             |       |     |       |                           |  |                    |     |         |
|                   | 115%                     | 45 kA  | 45 kA | —   | 45 kA | 90 kA                     | 405 V  | 433 V              | —   | 613 V   |
| <b>UG28A2403D</b> | <b>120/240 VAC</b>       | <b>Three Phase High Leg Delta</b>                  |       |     |       |                           |  |                    |     |         |
|                   | 115%                     | 45 kA  | 45 kA | —   | 45 kA | 90 kA                     | 405 V /<br>(649 V)   | 433 V /<br>(615 V) | —   | 613 V   |
| <b>UG28A4803Y</b> | <b>277/480 VAC</b>       | <b>Three Phase Wye</b>                             |       |     |       |                           |  |                    |     |         |
|                   | 115%                     | 45 kA  | 45 kA | —   | 45 kA | 90 kA                     | 799 V  | 786 V              | —   | 1,277 V |
| <b>UG28A4803D</b> | <b>480 VAC</b>           | <b>Three Phase Delta</b>                           |       |     |       |                           |  |                    |     |         |
|                   | 115%                     | —  | 90 kA | —   | 45 kA | 135 kA                    | —  | 1,209 V            | —   | 1,211 V |

### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage expressed in percent of nominal voltage  
<sup>2</sup> Per Phase is defined as L-N + L-G for three phase 4-wire wye systems; L-G + L-L for three phase 3-wire delta systems  
<sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition

| REPLACEMENT MODULE INFORMATION |                              |
|--------------------------------|------------------------------|
| System Number:                 | Quantity & Part Number       |
| UG28A2401S                     | (2) UG27120A                 |
| UG28A2083Y                     | (3) UG27120A                 |
| UG28A2403D                     | (2) UG27120A<br>(1) UG27208A |
| UG28A4803Y                     | (3) UG27277A                 |
| UG28A4803D                     | (3) UG27480A                 |

# Industrial Point of Use Protection .....

## F20 Series

The F20 Series is a hardwired in line suppression device for protection of loads up to 20 Amps including fire alarm circuits, industrial controls, PLC's and any other sensitive electronic equipment.

Dimensions: 4.54"H x 3.5"W x 2.2"D  
Weight: 2.5 lbs.

## Features:

- All mode Protection
- Thermally Protected MOVs for maximum safety
- UL1449, 2nd Edition and UL1283 Listed, cULus
- EMI/RFI Filtration – 26 to 39 dB
- 5 year product warranty
- Nema 4 Enclosure

## Integral Diagnostics:

- LED Indicator Light
- Intermatic Thermal Monitoring System
- Form C Contacts

| Intermatic Model | MCOV <sup>1</sup><br>L-G | Surge Current Capacity<br>(8 x 20 usec) |       |       |       | Per<br>Phase <sup>2</sup> | UL 1449 Clamping Voltage<br>6 kV, 500 Amp (8 x 20 usec) <sup>3</sup> |       |       |       |
|------------------|--------------------------|---|-------|-------|-------|---------------------------|--|-------|-------|-------|
|                  |                          | L-N                                     | L-G   | N-G   | L-L   |                           | L-N  | L-G   | N-G   | L-L   |
| <b>IG1201F20</b> | <b>120 VAC</b>           | <b>Single Phase</b>                     |       |       |       |                           |  |       |       |       |
|                  | 115%                     | 16 kA                                   | 16 kA | 16 kA | —     | 48 kA                     | 500 V  | 500 V | 500 V | —     |
| <b>IG2401F20</b> | <b>240 VAC</b>           | <b>Single Phase</b>                     |       |       |       |                           |  |       |       |       |
|                  | 115%                     | —                                       | 32 kA | —     | 16 kA | 48 kA                     | —  | 700 V | —     | 700 V |

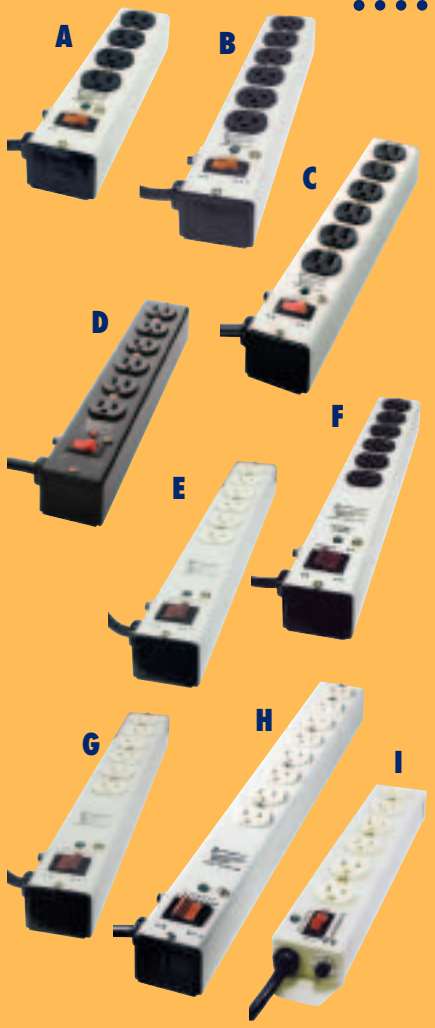
### NOTES:

- <sup>1</sup> MCOV is Maximum Continuous Operating Voltage  
<sup>2</sup> Per Phase is defined as L-N + L-G + N-G for single phase 120 VAC system, L-G + L-L for single phase 240 VAC systems  
<sup>3</sup> Let-Through Voltage measured with 6 inch lead lengths per UL Standard 1449, 2nd Edition



**Din Rail Adapter Kit IG1DIN-F20**

## .....Industrial Point Of Use Protection



### Features:

- Designed for Heavy Industrial Use
- 3-mode Surge Protection (L-N, L-G, N-G)
- UL1449, 2nd Edition, cULus
- EMI/RFI noise filtration
- 14 gauge SJT power cord with molded plug
- Protection monitoring circuitry with LED light indicator
- 15 amp resettable breaker
- Ivory Metal Housing

#### A. IG11246

- 4-outlets
- 6 ft. cord
- Lighted On/Off switch

#### B. IG11466

- 6-outlets
- 6 ft. cord
- Lighted On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283

#### C. IG11266

- 6-outlets
- 6 ft. cord
- Lighted On/Off switch

#### D. IG11266BLK10

- Black
- 6-outlets
- 10 ft. cord
- Lighted On/Off switch

#### E. IG2066 & IG20615

- 6 specification-grade outlets
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283
- 6 ft. cord (IG2066); 15 ft. cord (IG20615)

#### F. IG1866A

- 6-outlets
- 6 ft. cord
- Audible alarm
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283

#### G. IG20B12 & IG2012B15

- 6 specification-grade outlets
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283
- 6 ft. cord (IG20B12); 15 ft. cord (IG2012B15)

#### H. IG2086

- 8 specification-grade outlets
- Master On/Off switch
- Enhanced EMI/RFI noise filtration, UL1283
- 6 ft. cord

#### I. IG9638S55

- 6 specification-grade outlets
- Lighted On/Off switch
- Steel housing
- 15 ft. cord

See chart on page 60 for UL1449 ratings and EMI/RFI filtration.



## .....Electra-Guard Plus & Electra-Guard Professional Surge Protectors

### Features:

- Patented design combines the strength of aluminum with the versatility of plastic
- Superior surge protection for maximum reliability
- Unique plug angles provide convenient cord installation and wire management
- Highly effective line noise filtration protects sensitive equipment
- Uniquely positioned transformer receptacles accommodate multiple transformer blocks without covering other outlets
- Surge protection, polarity and ground status LED indicator lights
- UL Approved & cUL Listed
- UL1449 2nd Edition

#### J. EG66

- 6-outlets (2 designed for transformers)
- 6 ft. cord

#### K. EG79

- 7-outlets (4 designed for transformers)
- 9 ft. cord
- "Always On" outlet provides power and surge protection when main switch is Off

# Electra-Guard . . . . . Point Of Use Protection

## Features:

- Plastic (except where noted)
- 3-mode Surge Protection (except EG613L)
- 15 amp resettable breaker
- Protection monitoring circuitry with LED light indicator
- UL1449, 2nd Edition

### L. EG63ID88

- 6-outlets
- Noise filter
- Indicator light
- 12/bin box

### M. EG63TID88

- 6-outlets
- Noise filter
- Indicator light
- 12/bin box
- Telephone protection

### N. EG636SLI (Metal)

- 6-outlets
- Noise filter
- 6 foot cord
- Lighted switch

### O. EG6315SLI (Metal)

- 6-outlets
- Noise filter
- 15 foot cord
- Lighted switch

### P. EG606L

- Non-surge
- 6-outlets
- 6 foot cord
- Lighted switch

### Q. EG636LI

- 6-outlets
- Noise filter
- 6 foot cord
- Lighted switch

### R. EG613L

- 6-outlets
- 3 foot cord
- L-N Protection only

### S. EG634TLI

- 6-outlets
- Noise filter
- 4 foot cord
- Lighted switch
- Telephone protection

### T. EG856TALI

- 8-outlets
- Noise filter
- 6 foot cord
- Telephone Protection

### U. EG858DSALI

- 8-outlets
- Noise filter
- Lighted switch
- Indicator light
- 8 foot cord
- Alarm
- Coax protection
- Phone protection
- Satellite protection

### V. EG44TALI

- 5-switch, Computer Control Center
- Noise filter
- Telephone protection (RJ11 connectors)
- Alarm
- Master switch shutdown capabilities
- 15 Amp resettable circuit breaker

See chart on page 60 for UL1449 ratings and EMI/RFI filtration.

# Computer Control Centers . . . . .

## Features:

- 6 centralized switches
- One unswitched receptacle
- Metal Housing
- Static discharge pad
- 15 Amp, resettable circuit breaker
- 9 ft., 14 gauge power cord
- LED Indicator Light monitors power on & protection status
- L-N, L-G and N-G surge protection
- cULus
- UL1449, 2nd Edition

### W. IG141

- Standard model

### X. IG141T

- Standard model with phone/fax/modem protection
- RJ11 connectors

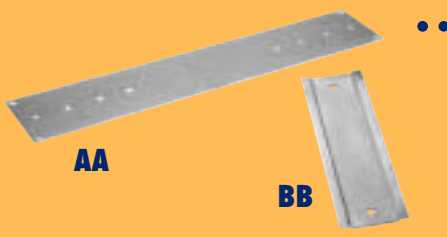
### Y. IG143

- Enhanced EMI/RFI noise attenuation
- Dual choke design for lower clamping

### Z. IG143T

- Enhanced model with phone/fax/modem protection
- RJ11 connectors





## ..... Mounting Bracket & Plate

### AA. IG1SRMP

- Allows any IG strip to be mounted on a 19" equipment rack

### BB. 24EG5133

- Secures mounting bracket for all IG strips in extruded aluminum alloy housing  
(See models on chart with \*)

## Product Selection Chart – Point of Use Models

| Intermatic Model                | Number of Outlets | Cord Length | Electrical Rating | Energy Capacity    |                      | Connected Equipment \$ Coverage | UL1449 Rating (volts) | EMI-RFI Noise Filtration |             | Product Warr. (yrs) |
|---------------------------------|-------------------|-------------|-------------------|--------------------|----------------------|---------------------------------|-----------------------|--------------------------|-------------|---------------------|
|                                 |                   |             |                   | Max. Joule. Rating | Max. Surge. Amperage |                                 |                       | Frequency Range (Hz)     | Max. Reduc. |                     |
| <b>Industrial Grade</b>         |                   |             |                   |                    |                      |                                 |                       |                          |             |                     |
| IG11246*                        | 4                 | 6           | 120 V/15 A        | 480                | 24,000 A             | \$10,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG11266*                        | 6                 | 6           | 120 V/15 A        | 480                | 24,000 A             | \$10,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG11266BLK10*                   | 6                 | 10          | 120 V/15 A        | 480                | 24,000 A             | \$10,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG11466*                        | 6                 | 6           | 120 V/15 A        | 480                | 24,000 A             | \$10,000                        | 400/400/400           | 100k-20M                 | 40dB        | 5                   |
| IG1866A*                        | 6                 | 6           | 120 V/15 A        | 960                | 48,000 A             | \$25,000                        | 330/330/330           | 100k-100M                | 62dB        | 5                   |
| IG2066*                         | 6                 | 6           | 120 V/15 A        | 960                | 48,000 A             | \$25,000                        | 330/330/330           | 100k-100M                | 62dB        | 5                   |
| IG20615*                        | 6                 | 15          | 120 V/15 A        | 960                | 48,000 A             | \$25,000                        | 330/330/330           | 100k-100M                | 62dB        | 5                   |
| IG20B12*                        | 6                 | 6           | 120 V/15 A        | 480                | 24,000 A             | \$ 5,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG2012B15*                      | 6                 | 15          | 120 V/15 A        | 480                | 24,000 A             | \$ 5,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG9638S55                       | 6                 | 15          | 120 V/15 A        | 480                | 24,000 A             | —                               | 400/400/400           | 100k-20M                 | 21dB        | 5                   |
| IG2086*                         | 8                 | 6           | 120 V/15 A        | 960                | 48,000 A             | \$25,000                        | 330/330/330           | 100k-100M                | 62dB        | 5                   |
| <b>Electra Guard</b>            |                   |             |                   |                    |                      |                                 |                       |                          |             |                     |
| EG606L                          | 6                 | 6           | 120 V/15 A        | —                  | —                    | —                               | UL1363 only           | —                        | —           | 1                   |
| EG613L                          | 6                 | 3           | 120 V/15 A        | 110                | 4,500 A              | —                               | 400 (L-N)             | 100k-20M                 | 15dB        | 1                   |
| EG6315SLI                       | 6                 | 15          | 120 V/15 A        | 420                | 19,500 A             | \$2,500                         | 400/400/400           | 100k-20M                 | 15dB        | 4                   |
| EG634TLI                        | 6                 | 4           | 120 V/15 A        | 330                | 13,500 A             | \$1,000                         | 400/400/400           | 100k-20M                 | 15dB        | 3                   |
| EG636LI                         | 6                 | 6           | 120 V/15 A        | 330                | 19,500 A             | \$1,000                         | 400/400/400           | 100k-20M                 | 15dB        | 3                   |
| EG636SLI                        | 6                 | 6           | 120 V/15 A        | 420                | 19,500 A             | \$2,500                         | 400/400/400           | 100k-20M                 | 15dB        | 4                   |
| EG63ID88                        | 6                 | —           | 120 V/15 A        | 330                | 13,500 A             | \$1,000                         | 400/400/400           | 100k-20M                 | 15dB        | 3                   |
| EG63TID88                       | 6                 | —           | 120 V/15 A        | 330                | 13,500 A             | \$1,000                         | 400/400/400           | 100k-20M                 | 15dB        | 3                   |
| EG66                            | 6                 | 6           | 120 V/15 A        | 2000               | 80,000 A             | \$15,000                        | 330/330/330           | 100k-20M                 | 55dB        | 5                   |
| EG79                            | 7                 | 9           | 120 V/15 A        | 2800               | 112,000 A            | \$25,000                        | 330/330/330           | 100k-20M                 | 55dB        | 5                   |
| EG856TALI                       | 8                 | 6           | 120 V/15 A        | 1200               | 48,000 A             | \$10,000                        | 330/330/330           | 100k-20M                 | 40dB        | Lifetime            |
| EG858DSALI                      | 8                 | 8           | 120 V/15 A        | 1200               | 48,000 A             | \$10,000                        | 330/330/330           | 100k-20M                 | 40dB        | Lifetime            |
| <b>Computer Control Centers</b> |                   |             |                   |                    |                      |                                 |                       |                          |             |                     |
| EG44TALI                        | 5                 | 6           | 120 V/15 A        | 1200               | 48,000 A             | \$10,000                        | 330/330/330           | 100k-40M                 | 40dB        | 5                   |
| IG141                           | 6                 | 9           | 120 V/15 A        | 480                | 24,000 A             | \$10,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG141T                          | 6                 | 9           | 120 V/15 A        | 480                | 24,000 A             | \$10,000                        | 400/400/400           | 100k-20M                 | 25dB        | 5                   |
| IG143                           | 6                 | 9           | 120 V/15 A        | 960                | 48,000 A             | \$25,000                        | 330/330/330           | 100k-100M                | 62dB        | 5                   |
| IG143T                          | 6                 | 6           | 120 V/15 A        | 960                | 48,000 A             | \$25,000                        | 330/330/330           | 100k-100M                | 62dB        | 5                   |

\* = Extruded aluminum housing

# Residential Hardwired Protection .....

## IG Series

### Features:

- Hardwired models provide greater capacity to handle surge energy (based on their close location to the service ground) compared to standard plug-in strips
- Designed for 120/240 volt single or (split-phase) panels
- Dual LED indicator(s) provides surge protection status on AC

### A. IG1300-2T-1C

- 120/240 VAC Single (Split) Phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Provides protection for 2 Telephone Lines (Analog Phone Line, Modem, or DSL) and 1 Coax Line (Cable TV, Cable Internet or Satellite TV)
- UL 1449 Listed, 2nd Edition and UL497A Listed, cULus
- Nema 3R Raintight Enclosure for indoor or outdoor installations (9.38"H x 5.25"W x 4.0"D)
- 5 Year Product Warranty
- \$10,000 Connected Equipment Coverage



### B. IG1300-4T-2C

- 120/240 VAC Single (Split) Phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Provides protection for 4 Telephone Lines (Analog Phone Line, Modem, or DSL) and 2 Coax Lines (Cable TV, Cable Internet or Satellite TV)
- UL 1449 Listed, 2nd Edition and UL497A Listed, cULus
- Nema 3R Raintight Enclosure for indoor or outdoor installations (9.38"H x 5.25"W x 4.0"D)
- 5 Year Product Warranty
- \$10,000 Connected Equipment Warranty (Appliances and Electronics) [5 year]



### C. IG1240RC

- 120/240 VAC Single (Split) phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Green LED indicator provides status of protection;  
Red LED indicator indicates reduced protection
- Nema 4 plastic housing (5.65"H x 4.18"W x 3.33"D)
- 5 year product warranty
- UL Listed UL1449, 2nd edition, cULus
- Tested to 25 kAIC per NEC Section 285
- \$10,000 Connected Equipment Coverage (Appliances and Electronics) [5 year]



### IG1240FMP3

- Includes faceplate, screws and mounting bracket for IG1240RC

### D. IG3240RC

- 120/240 VAC Single (Split) phase
- 6 Modes of Surge Protection (L1-N, L2-N, L1-G, L2-G, N-G, L1-L2)
- Green LED indicator provides status of protection;  
Red LED indicator indicates reduced protection
- Nema 4 metal housing (6.28"H x 4.4"W x 3.25"D)
- 10 year product warranty
- UL Listed UL1449, 2nd edition, cULus
- Tested to 25 kAIC per NEC Section 285
- \$25,000 Connected Equipment Coverage (Appliances and Electronics) [5 year]



### IG3240FMP3

- Includes faceplate, screws and mounting bracket for IG3240RC



**Flush Mount Plates**  
IG1240FMP3 IG3240FMP3

| Intermatic Model | Service Voltage | Phase | Leads # - Length | Gauge | Wire Config.   | Peak Surge Current Per Phase/System | UL 1449 Clamping Voltages |     |     |      |
|------------------|-----------------|-------|------------------|-------|----------------|-------------------------------------|---------------------------|-----|-----|------|
|                  |                 |       |                  |       |                |                                     | L-N                       | L-G | N-G | L-L  |
| IG1300-2T-1C     | 120/240         | 2     | 4 24             | 14    | L1, L2, N, GND | 20 kA/60 kA                         | 400                       | 400 | 400 | 700  |
| IG1300-4T-2C     | 120/240         | 2     | 4 24             | 14    | L1, L2, N, GND | 20 kA/60 kA                         | 400                       | 400 | 400 | 700  |
| IG1240RC         | 120/240         | 2     | 4 30             | 14    | L1, L2, N, GND | 20 kA/60 kA                         | 400                       | 400 | 400 | 700  |
| IG3240RC         | 120/240         | 2     | 4 30             | 14    | L1, L2, N, GND | 60 kA/180 kA                        | 330                       | 330 | 330 | 600  |
| IG251            | 120/240         | 2     | 4 24             | 12    | L1, L2, N, GND | 48 kA/115 kA                        | 600                       | —   | —   | 1200 |
| UG241R           | 120/240         | 2     | 4 24             | 12    | L1, L2, N, GND | 48 kA/115 kA                        | 600                       | —   | —   | 1200 |

# Residential Hardwired Protection



## F. IG251

- Handles up to 600 Amp service capacity
- Enclosure size (6.0"H x 3.5"W x 3.0"D)
- Epoxy encapsulation protects surge components from moisture, dirt and corrosion
- 5 year product warranty
- UL 1449 2nd edition listed as a Transient Voltage Surge Suppressor
- 250 Volt MCOV for generator applications

## G. UG241R

- Handles up to 600 Amp service capacity
- Enclosure size (6.63"H x 3.75"W x 2.5"D)
- Steel weatherproof housing with lockable cover Epoxy encapsulation protects surge components from moisture, dirt and corrosion
- 5 year product warranty
- UL 1449 2nd edition listed as a Transient Voltage Surge Suppressor
- 250 Volt MCOV for generator applications

# Surge Arresters

## Features:

- Designed for outdoor installations on service entrance and utility meter cabinets
- Approved for outdoor applications such as irrigation equipment, pumps, lighting fixtures, traffic signaling devices, farm equipment, HVAC controls and motors
- Parallel metal oxide varistors (MOV) from each line to grounded neutral provide increased product capability

- Molded polycarbonate housing with 1/2" x 20 threaded nipple is weatherproof and UV resistant
- Epoxy encapsulation protects components from moisture, dirt and corrosion
- Color coded 18" leads
- UL listed as a secondary surge arrester, ANSI/IEEE C62.11 for Category "C" locations
- 2 year product warranty



## A. AG2401C

- 120/240 single phase, 2 pole 3 wire device
- 18" 14 gauge leads

## B. AG2083C

- 120/208 VAC, 3 pole 4 wire device
- 18" 12 gauge leads

## C. AG2403C

- 240 VAC, 3 pole 4 wire device
- 18" 12 gauge leads

## D. AG4801

- 277/480 VAC or 480 VAC, 3 pole 4 wire device
- 18" 12 gauge leads

## E. AG6503C & AG6503L

- Up to 600 V three phase, 3 pole 4 wire device
- 18" 12 gauge leads (AG6503C); 36" 10 gauge leads (AG6503L)

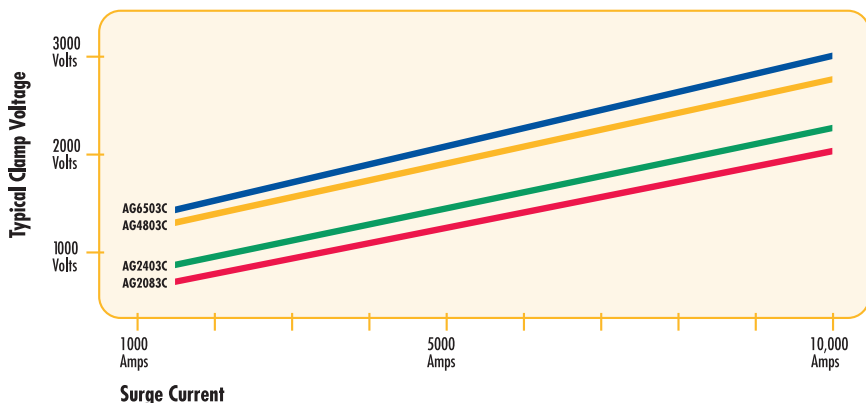
## F. AG4801

- 277V or 480V VAC single phase, 2 pole 3 wire device
- 18" 10 gauge leads
- 18" 6 gauge green ground lead

| Model   | Service Voltage | Poles  | Number of Leads Length | Wire Configuration | Actual Clamping Voltage (Line to Ground) |       |        |
|---------|-----------------|--------|------------------------|--------------------|--|-------|--------|
|         |                 |        |                        |                    | 1500A                                    | 5000A | 10000A |
| AG2401C | 120/240V        | 1 or 2 | 3/18"                  | L1, L2, GND/N      | 490                                      | 980   | 1410   |
| AG2083C | 208V            | 3      | 4/18"                  | L1, L2, L3, GND/N  | 490                                      | 980   | 1410   |
| AG2403C | 240V            | 3      | 4/18"                  | L1, L2, L3, GND/N  | 740                                      | 1330  | 1850   |
| AG4801  | 277V or 480V    | 1 or 2 | 3/18"                  | L1, L2, GND        | 1450                                     | 2130  | 2620   |
| AG4803C | 480V            | 3      | 4/18"                  | L1, L2, L3, GND/N  | 1450                                     | 2130  | 2620   |
| AG6503C | Up to 600V      | 3      | 4/18"                  | L1, L2, L3, GND/N  | 1640                                     | 2340  | 2920   |
| AG6503L | Up to 600V      | 3      | 4/36"                  | L1, L2, L3, GND/N  | 1640                                     | 2340  | 2920   |

## Match the correct model to the voltage of your system/machine

The chart below shows Typical Clamp Voltage for each model.



**Mounting Bracket AG1BRKT**



**AG2083C AG2403C AG4803C AG6503C**

# Surge Arresters .....

## A. UG240R

- 120/240 V Surge Arrester for up to 600 Amp service
- 2 pole 3 wire configuration for installation on utility cabinets and outdoor service panels
- Enclosure size (6.0"H x 3.5"W x 3.0"D)
- Steel weatherproof housing with lockable cover
- Epoxy encapsulation protects components from moisture, dirt and corrosion
- UL listed as a Surge arrester
- LED indicator provides surge protection status
- 5 year product warranty

## B. IG250LA

- 120/240 V Surge Arrester for up to 600 Amp service
- Designed for applications frequently subjected to high level surge energy
- Enclosure size (6.63"H x 3.75"W x 2.5"D)
- Epoxy encapsulation protects components from moisture, dirt and corrosion
- UL listed as a Surge Arrester
- LED indicator provides surge protection status
- 5 year product warranty

| Model   | Service Voltage | Phase | Number of 24" Leads | Wire Configuration | Peak Surge Current Per Phase/Per System | Clamping Voltage @500A | Enclosure Size (inches) | Weight Lbs |
|---------|-----------------|-------|---------------------|--------------------|---|------------------------|-------------------------|------------|
| UG240R  | 120/240         | 2     | 3                   | L1, L2, N          | 48 kA/115 kA                            | L-N: 555<br>L-L: 1028  | 6.06 x 3.81 x 3.31      | 2.4        |
| IG250LA | 120/240         | 2     | 3                   | L1, L2, N          | 48 kA/115 kA                            | L-N: 555<br>L-L: 1028  | 6.06 x 3.81 x 3.31      | 2.4        |



## Surge Protection Device Connected Equipment Coverage

| Product Type                         | Page # | Model Number | Maximum Repair or Replacement Coverage |
|--------------------------------------|--------|--------------|--|
| Six Outlet Plastic Plug-in           | 59     | EG63ID88     | EG63TID88                              |
| Plastic Multi-Outlet Strip           | 59     | EG634TLI     | EG636LI                                |
| Metal Multi-Outlet Strip             | 59     | EG636SLI     | EG6315SLI                              |
| Metal Multi-Outlet Strip             | 58     | IG2012B15    | IG20B12                                |
| Specialty Plastic Multi-Outlet Strip | 59     | EG858DSALI   | EG856TALI                              |
| Metal Multi-Outlet Strip             | 58     | IG11246      | IG11266                                |
| Computer Control Center              | 59     | IG141        | IG141T                                 |
| Residential Grade Protector          | 61     | IG1240RC     | IG1300-2T-1C                           |
| Specialty Plastic Multi-Outlet Strip | 58     | EG66         | IG1300-4T-2C                           |
| Metal Multi-Outlet Strip             | 58     | IG1866A      | IG2046                                 |
| Computer Control Center              | 59     | IG143        | IG143T                                 |
| Specialty Plastic Multi-Outlet Strip | 58     | EG79         | IG2086                                 |
| Residential Grade Protector          | 61     | IG3240RC     | IG2066                                 |

**INTERMATIC** Surge Protection devices, with Connected Equipment Coverage, offers the user extended protection for sensitive equipment. In the unlikely event that a damaging transient surge passes through the surge device and damage occurs to the connected equipment, Intermatic will pay up to \$25,000 to repair or replace the equipment based on the specified model and coverage provided. Refer to the warranty document included with the product for specific coverage details and limitations.