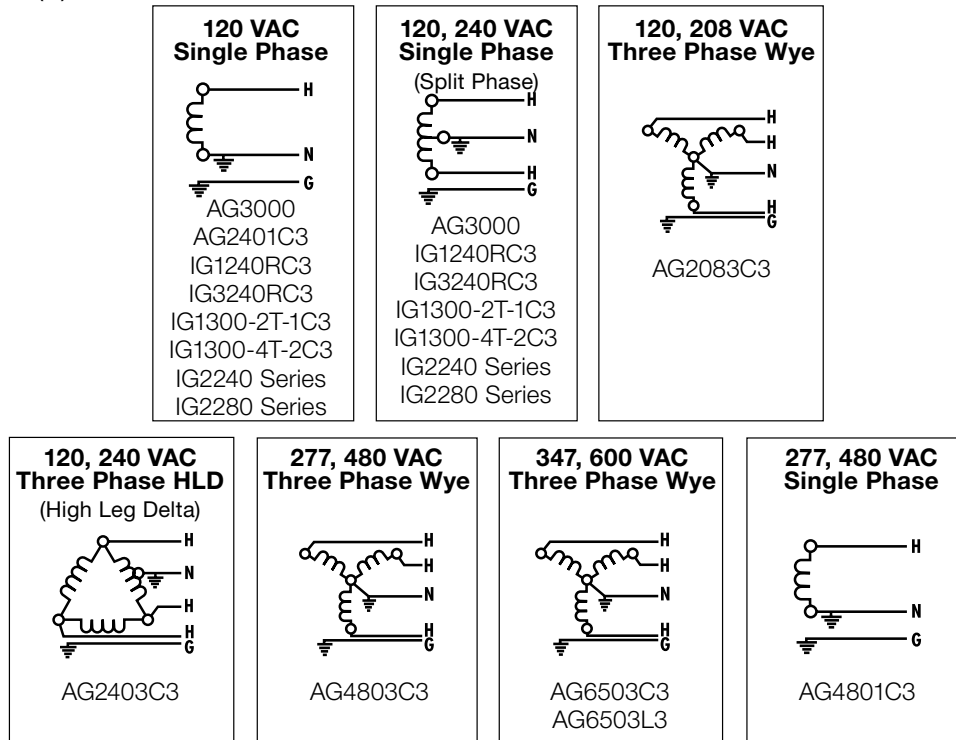


## Common Voltage Configurations

The wiring diagrams below illustrate the common voltage configurations for Intermatic surge products. Locate the desired voltage configuration and surge protector part number, and then go to the applicable product page to order the desired item(s).



*Note: All SPDs protect against surges that travel along the electrical pathway and are not applicable to direct lightning strikes that travel down non-electrical paths. Be sure to have at least a 20 A dual pole breaker(s) to help prevent the circuits from shorting. Type 1 SPDs are normally mounted before panels, which would not include a breaker.*

## Surge Glossary

**Maximum Continuous Operating Voltage (MCOV):** The maximum RMS voltage that may be applied to each mode of a surge protection device. (Listed on the product)

**Modes Of Protection:** Electrical paths within a system which an SPD offers defense against surge events. Examples of protection include, Line to Neutral (L-N), Line to Ground (L-G), Line to Line (L-L) and Neutral to Ground (N-G). (Listed on the product)

**Nominal Discharge Current (In):** Peak value of the current through the SPD having a current wave shape of 8/20 where the SPD remains functional after 15 surges. (Listed on the product)

**Nominal System Voltage:** The voltage level at which a system normally operates. Nominal system voltages include, but are not limited to, 120, 208, 240, 277, 347, 480, 600 VAC. (Listed on the product)

**Short Circuit Current Rating (SCCR):** The measurement of how much current the electrical system can supply during a fault condition. This value determines where an SPD may be installed. (Listed on the product)

**Surge:** A sudden and sharp increase of current or voltage within electric circuits.

**Surge Protective Device (SPD):** A device used to limit a surge on equipment by diverting or limiting it. SPDs were previously known as Transient Voltage Surge Suppressors or secondary surge arresters.

**Voltage Protection Rating (VPR):** The value assigned by UL which specifies the measured limited voltage value of the SPD. VPR rating is formally known as the "suppressed voltage rating". (Listed on the product)

## AG Series

### Type 1 or 2 SPD

The AG Series Surge Protective Devices (SPD) are designed for a variety of applications. Trusted, state-of-the-art T<sub>PMOV</sub><sup>®</sup> (Thermally Protected Metal Oxide Varistor) surge protection technology eliminates the potentially hazardous failure modes that are commonly associated with standard MOV technology. A green LED indicator provides status of protection. Type 1 applications include outdoor installations before service entrances and utility meter cabinets. Type 2 applications include installations after service entrances. Outdoor applications include irrigation equipment, farm equipment, pumps, lighting fixtures, traffic signaling devices, HVACR controls and motors. AG2401C3/AG48013/AG6503C3/AG6503L3 are UL Listed to ANSI/UL 1449, 3rd edition. AG2083C3/AG4803C3/AG2403C3 are CSA certified to ANSI/UL 1449, 3rd Edition.

#### Applications

- Light Commercial • Outdoor Applications
- 3-Phase Rooftop HVAC Units

#### Features

- Three or six modes of protection
- T<sub>PMOV</sub><sup>®</sup> surge protection technology
- Green LED protection indicator
- Type 4X watertight, plastic enclosure for outdoor installations
- UV-resistant polycarbonate housing
- ½" threaded nipple for ¾" normal conduit knockout
- 1-year product warranty

| Model #                    | Service Voltage                           | Modes of Protection                       | MCOV** (V)   | VPR*** (V)  | Lead Length | Lead Gauge                             |
|----------------------------|---|---|--|---|-------------|--|
| <b>Single Phase Models</b> |   |   |  |   |             |  |
| <b>AG2401C3</b>            | 120/240 VAC, 50/60 Hz                     | 3 (L1-N, L2-N, L1-L2)                     | L-L 300 V<br>L-G 150 V<br>L-N 150 V                            | L-L 1200 V<br>L-G 700 V<br>L-N 700 V                              | 18"         | #12 AWG                                |
| <b>AG48013</b>             | 277/480 VAC, 50/60 Hz                     |   | L-L 640 V<br>L-G 320 V<br>L-N 320 V                            | L-L 2000 V<br>L-G 1200 V<br>L-N 1200 V                            | 18"         | #10 AWG (Black, White), #6 AWG (Green) |
| <b>Three Phase Models</b>  |   |   |  |   |             |  |
| <b>AG2083C3</b>            | 208 VAC, 50/60 Hz                         | 6 (L1-N, L2-N, L3-N, L1-L2, L1-L3, L2-L3) | L-L 300 V<br>L-G 150 V<br>L-N 150 V                            | L-L 1200 V<br>L-G 700 V<br>L-N 700 V                              | 18"         | #12 AWG                                |
| <b>AG4803C3</b>            | 347/600 VAC, 50/60 Hz                     |   | L-L 640 V<br>L-G 320 V<br>L-N 320 V                            | L-L 2000 V<br>L-G 1200 V<br>L-N 1200 V                            | 18"         | #12 AWG                                |
| <b>AG6503C3*</b>           | 347/600 VAC, 50/60 Hz                     |   | L-L 840 V<br>L-G 420 V<br>L-N 420 V                            | L-L 2500 V<br>L-G 1500 V<br>L-N 1500 V                            | 18"         | #10 AWG                                |
| <b>AG6503L3*</b>           | 347/600 VAC, 50/60 Hz                     |   | L-L 840 V<br>L-G 420 V<br>L-N 420 V                            | L-L 2500 V<br>L-G 1500 V<br>L-N 1500 V                            | 36"         | #10 AWG                                |
| <b>AG2403C3</b>            | 120/208/240 VAC, 50/60 Hz, High Leg Delta |   | L1/L3-NG 150 V<br>L2-NG 270 V<br>L1-L3 300 V<br>L1/L3-L2 420 V | L1/L3-NG 700 V<br>L2-NG 1000 V<br>L1-L3 1200 V<br>L1/L3-L2 1500 V | 18"         | #12 AWG                                |

\*CSA and UL Recognized  
 \*\* Maximum Continuous Operating Voltage  
 \*\*\* Voltage Protection Rating



AG1BRKT

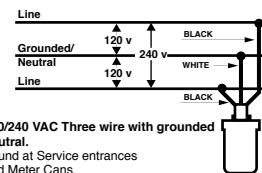
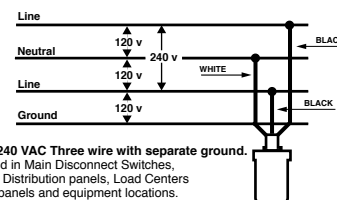
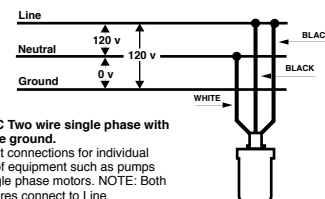
#### Accessories

Mounting Bracket for AG Series AG1BRKT



AG2401C3

#### Wiring Diagrams for AG2401C3



#### Ratings

|                                    |                                       |
|------------------------------------|---------------------------------------|
| <b>SPD Type</b>                    | 1 or 2                                |
| <b>In (kA)*</b>                    | 20 kA                                 |
| <b>SCCR (kA)**</b>                 | 50 kA                                 |
| <b>Surge Protection Technology</b> | T <sub>PMOV</sub> <sup>®</sup>        |
| <b>Operating Temperature</b>       | -31° F to 185° F<br>(-35° C to 85° C) |
| <b>Dimensions H x Dia</b>          | 4 3/16" x 3"<br>(106.4 mm x 76.2 mm)  |
| <b>Warranty</b>                    | 1-year                                |

\*Nominal Discharge Current  
 \*\*Short Circuit Current Rating

#### Wiring Diagrams

For more details on model numbers/wiring diagrams/ratings scan the QR code with your smartphone or tablet.

