

# Why Choose SSI Advantage® Series SPDs?

## True-All Mode Protection Including Line-to-Line Components:

- Per IEEE & NEMA Recommendations.
- **10 Direct Modes** of Protection in a 3 Phase Wye Device.
- **Most Competitors: Reduced Mode Protection (7 Modes or Less).**
- **Adding L-L Components Reduces Stress & Extends Life of SPD.**
- See **Per Phase Formula** on Page 2 to Determine Number of Actual Modes a SPD Protects.

## Component Level Fusing:

- Individually Fused MOVs.
- No Electro-Mechanical Moving Parts. No Springs or Shutters.

## Over-Current Fusing:

- Patented Circuit Board Mounted Cartridge Fusing – 200k AIC.
- Patented Circuitry Design.

## Highest Performing SPDs on The Market:

- Lowest Let-Thru Voltages (MLV) of any Manufacturer.
- This Means SSI Offers the Best Protection for Your Equipment.

## Installer Friendly Design:

- High Peak Surge Current Ratings in Compact Enclosures.
- Hybrid Patented Circuitry Means Smaller Devices.
- Smaller Devices Means Easier & Lower Cost Installation.

## More SPDs and Services Than Any Manufacturer:

- Largest Product Offering Listed to ANSI/UL Standards.
- We Build Custom Devices for Industry, Military, Business etc.
- AC/DC Panel, Single Circuit, Data, Telecom, Coax etc.

## Completely Encapsulated Circuit Board:

- We use an Engineered Compound. Not Sand. Not Air.
- Insulates Against Heat, Cold, Moisture, Vibration and Shock.
- Adds Dielectric Strength by Minimizing Expansion/Contraction.
- Allows Smaller Device Construction & Longer Life.

### Advanced SineWave Tracking Capability:

- Frequency Response Circuitry™ Electronics Grade Protection.
- Transients are Suppressed at any Point on the SineWave.
- This is State-of-The-Art Protection for Sensitive Electronics.
- True Frequency Responsive Protection Others Don't Offer.

### 25 Year Warranty:

- Complete Device Replacement (Not Parts or Modules).
- All Hard-Wired Construction - No Screws, Plugs or Modules.

### Made in U.S.A.:

- ISO 9001 Facility.
- Listed to ANSI/UL 1449 4<sup>th</sup> Edition Standards (UL & CSA listed).

### **Per Phase Calculations:**

This formula compares the “per mode” vs. “per phase” ratings for peak surge current. Specifying 10 mode devices “per phase” provides protection that will outperform a 7 mode device.  
Per Phase = kA per mode X number of modes, minus the N-G mode, divided by number of phases.

#### **Example of an 80 kA Per Mode: 3 Phase WYE: 10 Mode Device:**

80 kA per mode X 10 modes = 800

800 – 80 (N-G value) = 720

720 divided by 3 (# of phases) = **240 kA Per Phase** (Peak Surge Current Rating -10 Mode Device)

#### **Example of an 80 kA Per Mode: 3 Phase WYE: 7 Mode Device:**

80 kA per mode X 7 modes = 560

560 – 80 (N-G value) = 480

480 divided by 3 (# of phases) = **160 kA Per Phase** (Peak Surge Current Rating -7 Mode Device)

