Panel Mounted Multi-Phase Surge Protective Device ( SPD)

APPLICATION
Cat. No. 32000 is designed for installation in industrial and commercial facilities at service entrance or branch panels. All models protect against high-energy, high-voltage transient surges and are compatible with power-line carrier, home automation systems such as Leviton’s Decora Home Controls.

TYPICAL SPECIFICATION
Cat. No. 32000 is designed for use where a multi-phase, transient voltage surge suppressor (TVSS) is specified. Its parallel-operated design features 40mm-diameter, metal-oxide varistors and EMI/RFI filter circuitry equipped with high-voltage-rise capacitors for harmonic tolerance. It incorporates indicator lights and an audible alarm for monitoring power and surge suppression status as well as a dry contact for remote monitoring. Three-phase units are suitable for both WYE and DELTA alternating current systems. Only Cat. No. 32120-001 is a single-phase surge suppressor. The 32000 has been tested to ANSI/IEEE C62.41 standards for Category A, B and C environments and is UL 1449 (2nd Edition) Listed. It is also backed by Leviton’s Limited Ten-Year Warranty.

DIMENSIONAL DRAWINGS

Cat. No. 42000 Series

Cat. No. 32120-001
**Panel Mounted Multi-Phase Surge Protective Device (SPD)**

### PHYSICAL SPECIFICATIONS

- **Housing**: NEMA Type 3R steel enclosure
- **Physical Dimensions (approx.)**: 6.25" (158.8mm) x 4.25" (108.0mm) x 3.25" (82.6mm)
- **Mounting**: Flush mount into 3/4" panel knockout or use flanges to surface mount
- **Operating Temperature Range**: -10º to 60ºC
- **Storage Temperature Range**: -20º to 85ºC
- **Relative Humidity**: 5% to 95% non-condensing
- **Altitude**: Up to 3600m (11,800 ft.)

### AGENCY APPROVALS:
- Listed UL 1449 Standard (2nd Edition)
- CSA Certified

### PRODUCT MAINTENANCE

Real-time diagnostics monitor power and surge suppression status of each phase. If protection is lost, the green LED will no longer illuminate, red “fault” LED will illuminate, and the alarm will sound—the unit should be replaced. If unit is located where LED warning is not easily observable, remote diagnostics may be used. Unit is equipped with remote-monitoring dry contacts rated 5 Amps, 120/240V AC via three, color-coded 18AWG leads rated 600V AC.

### FEATURES
- Normal and common mode protection (line to neutral, line to line, and line to ground) for WYE and DELTA configured, 3-phase AC systems (Cat. No. 32120-001 rated for 120/240V AC single-phase systems)
- Real-time diagnostics monitor power and suppression status for each phase and provide both LED indicators and an audible alarm.
- Equipped with dry contacts for remote diagnostics
- Compatible with Leviton’s Decora Home Controls powerline carrier products

### PERFORMANCE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Rating</th>
<th>MCOV* (L-N)</th>
<th>MCOV* (L-L)</th>
<th>Max. Single-Pulse Transient Energy per phase (10x1000µs) Joules</th>
<th>Max. Single-Pulse Surge Current NM/CM per phase (8x20µs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32120-001</td>
<td>120/240V AC single-phase</td>
<td>150</td>
<td>270</td>
<td>720</td>
<td>80kA</td>
</tr>
<tr>
<td>32120-DY3</td>
<td>120/208V AC 3-phase WYE, 220V AC 3-phase DELTA</td>
<td>150</td>
<td>270</td>
<td>1440</td>
<td>80kA</td>
</tr>
<tr>
<td>32277-DY3</td>
<td>277/480V AC 3-phase WYE, 220/380V AC 3-phase WYE, 240V AC 3-phase DELTA</td>
<td>320</td>
<td>540</td>
<td>2560</td>
<td>80kA</td>
</tr>
<tr>
<td>32347-DY3</td>
<td>347/600V AC 3-phase WYE</td>
<td>420</td>
<td>660</td>
<td>3640</td>
<td>80kA</td>
</tr>
<tr>
<td>32412-DS3</td>
<td>120/240V AC Hi-Leg, Split-Phase DELTA</td>
<td>150</td>
<td>250</td>
<td>1210</td>
<td>80kA</td>
</tr>
</tbody>
</table>

**32000 Series**

**32120-001**

- **Operating Frequency**: @ 50, 60Hz
- **MCOV* (L-N)**: 150
- **MCOV* (L-L)**: 270
- **Max. Single-Pulse Transient Energy per phase (10x1000µs) Joules**: 720
- **Max. Single-Pulse Surge Current NM/CM per phase (8x20µs)**: 80kA

**32120-DY3**

- **Rating**: 120/208V AC 3-phase WYE, 220V AC 3-phase DELTA
- **MCOV* (L-N)**: 150
- **MCOV* (L-L)**: 270
- **Max. Single-Pulse Transient Energy per phase (10x1000µs) Joules**: 1440
- **Max. Single-Pulse Surge Current NM/CM per phase (8x20µs)**: 80kA

**32277-DY3**

- **Rating**: 277/480V AC 3-phase WYE, 220/380V AC 3-phase WYE, 240V AC 3-phase DELTA
- **MCOV* (L-N)**: 320
- **MCOV* (L-L)**: 540
- **Max. Single-Pulse Transient Energy per phase (10x1000µs) Joules**: 2560
- **Max. Single-Pulse Surge Current NM/CM per phase (8x20µs)**: 80kA

**32347-DY3**

- **Rating**: 347/600V AC 3-phase WYE
- **MCOV* (L-N)**: 420
- **MCOV* (L-L)**: 660
- **Max. Single-Pulse Transient Energy per phase (10x1000µs) Joules**: 3640
- **Max. Single-Pulse Surge Current NM/CM per phase (8x20µs)**: 80kA

**32412-DS3**

- **Rating**: 120/240V AC Hi-Leg, Split-Phase DELTA
- **MCOV* (L-N)**: 150
- **MCOV* (L-L)**: 250
- **Max. Single-Pulse Transient Energy per phase (10x1000µs) Joules**: 1210
- **Max. Single-Pulse Surge Current NM/CM per phase (8x20µs)**: 80kA

### CLAMPING PERFORMANCE

<table>
<thead>
<tr>
<th>Specification</th>
<th>32120-001 (L-N/L-L/N-G)</th>
<th>32120-DY3 (L-N/L-L/N-G)</th>
<th>32277-DY3 (L-N/L-L/N-G)</th>
<th>32412-DS3 (L-N/L-L/N-G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat. B3 combination wave (6kV/3kA) peak clamping voltage</td>
<td>532/832/514</td>
<td>532/832/514</td>
<td>996/1570/920</td>
<td>1100/2200/1100</td>
</tr>
<tr>
<td>UL 1449 Suppressed Voltage Ratings (SVR)†</td>
<td>500/700/500</td>
<td>500/700/500</td>
<td>900/1500/800</td>
<td>1200/2000/1000</td>
</tr>
</tbody>
</table>

†Suppressed Voltage Ratings (SVR) assigned at 6-inch lead length with 6kV/500A impulse in accordance with UL 1449 (2nd Edition)

### EM1/RFI NOISE REJECTION

<table>
<thead>
<tr>
<th>All Cat. No. 32000 SPD’s</th>
<th>Normal Mode</th>
<th>Common Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation Bandwidth</td>
<td>300kHz – 1.2MHz</td>
<td>300kHz – 1.2MHz</td>
</tr>
<tr>
<td>Noise Rejection @ 50 Ohms</td>
<td>-20dB</td>
<td>-20dB</td>
</tr>
</tbody>
</table>