TPS3 12
Type 1 Surge Protective Device (SPD)
For Line Side or Load Side Applications

Features:
- UL 1449 3rd Edition – 2009, cUL
- Type 1 SPD (Type 2 cUL)
- Mounts external to electrical distribution equipment
  - Recommended for line side or load side applications
- Large block, individually fused, thermally protected, 50 kA MOVs
- 20 kA \(I_n\) (most models)
- 200 kA SCCR (most models)
- Provides replaceable module protection for low to high exposure applications
- All UL-required OCP & safety coordination included
- UL96A Lightning Protection Master Label compliant (@ 20 kA \(I_n\))

SPD Specifications
- Surge Current Rating Per Phase

<table>
<thead>
<tr>
<th>Per Phase</th>
<th>L-N</th>
<th>L-G</th>
<th>N-G</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 kA</td>
<td>50 kA</td>
<td>50 kA</td>
<td>50 kA</td>
</tr>
<tr>
<td>150 kA</td>
<td>100 kA</td>
<td>50 kA</td>
<td>50 kA</td>
</tr>
<tr>
<td>200 kA</td>
<td>100 kA</td>
<td>100 kA</td>
<td>100 kA</td>
</tr>
<tr>
<td>250 kA</td>
<td>150 kA</td>
<td>100 kA</td>
<td>100 kA</td>
</tr>
<tr>
<td>300 kA</td>
<td>150 kA</td>
<td>150 kA</td>
<td>150 kA</td>
</tr>
<tr>
<td>400 kA</td>
<td>200 kA</td>
<td>200 kA</td>
<td>200 kA</td>
</tr>
<tr>
<td>500 kA</td>
<td>250 kA</td>
<td>250 kA</td>
<td>250 kA</td>
</tr>
</tbody>
</table>

- 100% monitoring (Every MOV is monitored, incl. N-G)
- Individually fused and thermally protected MOVs
- Solid state bi-directional operation
- EMI/RFI filtering: Active tracking up to -50 db from 10 kHz to 100 MHz
- Repetitive impulse: 5,000 hits
- Less than 1 nanosecond response time
- Relative humidity range: 0 -95% non-condensing
- Operating frequency: 47-63 Hz
- Operating temperature: -25°C (-15°F) to +60°C (140°F)

Standard Configuration
- Standard NEMA 1/12/3R/04 ANSI 61 steel enclosure
- Wire size: #8 AWG to 1/0
- Standard size: 12” x 12” x 7” (305 mm x 305 mm x 178 mm) *
- Standard weight: 20 lbs. (9.07 kg) *

*Internal disconnect options and other NEMA ratings may increase enclosure size and weight
**SPD Features**
- UL 1449 3rd Edition effective September 2009
- Designed, manufactured and tested consistent with:
  - NEC® Article 285
  - IEC 61643, CE
- Large block, individually fused, thermally protected, 50 kA MOVs
- 10 year warranty

**SPD Monitoring**
- LED indicators
- Audible alarm with silence switch and test button
- Dry contacts

**Available Options**
- Surge counter
- Internal rotary disconnect switch
- Thru-door disconnect switch
- NEMA 4X non-metallic enclosure
- NEMA 4X stainless steel enclosure
- Flush mount enclosure
- NEMA 1 Enclosure with extended display

**Available Accessories**
- RMSIE = Remote monitor

**Key Bid Specifications**
- UL 1449 3rd Edition – 2009, cUL
- Type2 SPD
- Protection modes on L-N, L-G, L-L, N-G
- \( I_n \) Rating – 20 kA
- Short Circuit Current Rating – 200 kA
- Surge Current Rating Per Phase = L-N + L-G

100 kA 50 kA 50 kA

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**Ordering Information**

<table>
<thead>
<tr>
<th>Catalog</th>
<th>Voltage Code</th>
<th>Surge Current (kA)</th>
<th>Enclosure</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPS3</td>
<td>A = 120/240V, 10, 3W (Fig 1)</td>
<td>100</td>
<td>0 = Standard NEMA 1/12/3R/4 Steel</td>
<td>D = Internal rotary disconnect</td>
</tr>
<tr>
<td></td>
<td>B = 120/240V, 30, 4W (Fig 3)</td>
<td>150</td>
<td>V = NEMA 4X non-metallic</td>
<td>T = Thru-door disconnect</td>
</tr>
<tr>
<td></td>
<td>C = 120/208V, 30, 4W (Fig 2)</td>
<td>200</td>
<td>S = NEMA 4X stainless steel</td>
<td>X = Surge counter</td>
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<tr>
<td></td>
<td>D = 240V, 30, 3W (Fig 4)</td>
<td>250</td>
<td>F = NEMA 1 flush mount</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E = 277/480V, 30, 4W (Fig 2)</td>
<td>300</td>
<td>P = NEMA 1 screwcover pullbox with extended display on 6ft cable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F = 480V, 30, 3W (Fig 4)</td>
<td>400</td>
<td>for line side mounting in SWBD/SWGR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G = 600V, 30, 3W (Fig 4)</td>
<td>500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>K = 380/220V, 30, 4W (Fig 2)</td>
<td>700</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>L = 600/347V, 30, 4W (Fig 2)</td>
<td>1200</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S = 400/230V, 30, 4W (Fig 2)</td>
<td>1500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**UL 1449 3rd Edition - 2009 Test Data Summary**

<table>
<thead>
<tr>
<th>Voltage Code</th>
<th>Service Voltage</th>
<th>Voltage Protection Rating (VPR - 6kV, 3 kA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L-N</td>
<td>L-G</td>
</tr>
<tr>
<td>A</td>
<td>120/240V, 10, 3W (Fig 1)</td>
<td>700</td>
</tr>
<tr>
<td>B</td>
<td>120/240V, 30, 4W (Fig 3)</td>
<td>700</td>
</tr>
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<td>C</td>
<td>120/208V, 30, 4W (Fig 2)</td>
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</tr>
<tr>
<td>F</td>
<td>480V, 30, 3W (Fig 4)</td>
<td>1800</td>
</tr>
<tr>
<td>G</td>
<td>600V, 30, 3W (Fig 4)</td>
<td>2500</td>
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<td>400/230V, 30, 4W (Fig 2)</td>
<td>1200</td>
</tr>
</tbody>
</table>

**Notes:**
- Type 2 cUL
- For line side mounting in SWBD/SWGR
- Not available in 500 kA
- Available in 100 kA, 150 kA, 200 kA & 250 kA only
- \( I_n \) rating for 100-300 kA per phase is 10 kA
- VPR may increase when disconnect switch is added; VPR may decrease for products 400 & 500 kA per phase

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