**Features**
- Complies with UL 1449 and IEC/EN 61643-11 standards
- UL recognized Type 4, Type 2 location SPD, passed short circuit current rating (SCCR) 200 kA without external fuse or CB
- High reliability protected MOV with Advanced Thermal Disconnector (TD+)
- Large surge energy capability up to 50 kA per mode
- Pluggable module for easy replacement

**General Information**

The Bourns® Model 1250A Series is a general duty Surge Protective Device (SPD) designed to protect high-risk electrical service entrance and branch panels. This SPD is intended to be installed at the front end of the installation, in the main switchboard, close to sensitive terminals or in installations without LPS (lightning rods).

The Model 1250A Series can be configured for both common mode and differential mode protection, in single and three phase applications.

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1250A-xS-120</th>
<th>1250A-xS-230</th>
<th>1250A-xS-277</th>
<th>1250A-xS-400</th>
<th>1250A-xS-480</th>
<th>1250A-xS-600</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Network</td>
<td>120 / 240 V</td>
<td>220 / 380 V</td>
<td>240 / 415 V</td>
<td>277 / 480 V</td>
<td>347 / 600 V</td>
<td>600 V (Delta)</td>
</tr>
<tr>
<td>120 / 208 V</td>
<td>230 / 400 V</td>
<td>277 / 480 V</td>
<td>347 / 600 V</td>
<td>480 V (Delta)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>UL1449; EN/IEC 61643-11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category UL/EN/IEC</td>
<td>Type 4, Type 2 location / T2 / Class II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Technologies</td>
<td>High energy MOV Technology Advanced Thermal Disconnector (TD+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection Mode</td>
<td>1-Pole, L-N or L-G or N-PE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC System</td>
<td>IT, TT, TN, Single, Split Phase, Delta, Wye</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Operating Voltage (MCOV)</td>
<td>150 V</td>
<td>275 V</td>
<td>320 V</td>
<td>420 V</td>
<td>550 V</td>
<td>690 V</td>
</tr>
<tr>
<td>Leakage Current at Uc</td>
<td>&lt; 1 mA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow Current</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UL 1449</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal Discharge Current</td>
<td>20 kA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8/20 μs (In)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Discharge Current (Imax)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Impulse 8/20 μs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage Protection Rating (VPR)</td>
<td>≤ 0.7 kV</td>
<td>≤ 1.0 kV</td>
<td>≤ 1.2 kV</td>
<td>≤ 1.5 kV</td>
<td>≤ 1.8 kV</td>
<td>≤ 2.5 kV</td>
</tr>
<tr>
<td>Short–Circuit Current Rating (SCCR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200 kA_rms</td>
</tr>
<tr>
<td>EN/IEC 61643-11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal Discharge Current</td>
<td>20 kA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>8/20 μs (In)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Discharge Current (Imax)</td>
<td>40 kA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>1 Impulse 8/20 μs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection Level (Up)</td>
<td>≤ 0.8 kV</td>
<td>≤ 1.4 kV</td>
<td>≤ 1.5 kV</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short–Circuit Current Rating (SC)</td>
<td>10 kA_rms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
</tbody>
</table>

Actual product may differ from image shown.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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Applications
- Electrical service entrance
- Branch panels
- All power circuits
- Heavy industrial
- EV charging stations

1250A Series General Duty AC Surge Protective Device

**General Characteristics**

<table>
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</tr>
<tr>
<td>1250A-xS-480</td>
<td>1250A-xS-600</td>
</tr>
</tbody>
</table>

- **Thermal Disconnector**: UL 60691
- **Overcurrent Protection**: Time Delay - 125 A Max.
- **Connection**: By Screw Terminal: Single-strand #2 AWG or 35 mm²; multi-strand #4 AWG or 25 mm²
- **Dimensions**: See Product Dimensions
- **Mounting**: DIN Rail, 35 mm Symmetrical
- **Remote Signal Indicator**: 250 VAC Max., 0.5 A
- **Enclosure Material**: Thermoplastic UL 94V0

**Environmental Characteristics**

<table>
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<tr>
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</tr>
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<td>1250A-xS-600</td>
</tr>
</tbody>
</table>

- **Operating Temperature**: -40 °C to +85 °C
- **Operating Altitude**: ≤ 2000 m
- **Relative Humidity**: 5 to 95 % Non-condensing
- **Environmental Rating**: IP 20

**Standards Compliance**

- IEC/EN 61643-11.................... Class II, Type 2
- UL1449 ................................ Type 4, Type 2 location
- CSA C22.2............................ Type 4, Type 2 location
- IEEE C62.41

**How to Order**

Model Designator
1250A = Advanced Version of 1250 Series

Configuration (number of poles)
1 = One Protected Pole
2 = Two Protected Poles
3 = Three Protected Poles
4 = Four Protected Poles

Remote Signaling Code
S = Remote Signaling

Operating Voltage
120 = 120/240 V, 120/208 V
230 = 220/380 V, 230/408 V
277 = 240/415 V, 277/480 V
400 = 277/480 V, 347/600 V
480 = 347/600 V, 480 V (Delta)
600 = 600 V (Delta)
1250A Series General Duty AC Surge Protective Device

Product Dimensions and Schematics

1P

2P

3P

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1250A Series General Duty AC Surge Protective Device

Product Dimensions and Schematics

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