Surge arrester

2-electrode arrester

Series/Type: EC470X
Ordering code: B88069X5740S102
Version/Date: Issue 06 / 2015-01-13
**Surge arrester**

**2-electrode arrester**

**EC470X**

### Features
- Standard size
- Very fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

### Applications
- Branch exchange
- Line protection
- Subscriber protection
- Alarm system
- Tuner
- Antenna protection

### Electrical specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>470</th>
<th>541</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DC spark-over voltage</strong> 1)2) Tolerance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min.</td>
<td>±15</td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Max.</td>
<td>400</td>
<td>541</td>
<td>V</td>
</tr>
<tr>
<td><strong>Impulse spark-over voltage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 100 V/µs - for 99% of measured values</td>
<td>&lt;850</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>- typical values of distribution</td>
<td>&lt;800</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>at 1 kV/µs - for 99% of measured values</td>
<td>&lt;1100</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>- typical values of distribution</td>
<td>&lt;1000</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td><strong>Service life</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 operations 50 Hz, 1 s</td>
<td>5</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1 operation 50 Hz, 0.18 s (9 cycles)</td>
<td>20</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>10 operations 8/20 µs</td>
<td>5</td>
<td></td>
<td>kA</td>
</tr>
<tr>
<td>1 operation 8/20 µs</td>
<td>10</td>
<td></td>
<td>kA</td>
</tr>
<tr>
<td><strong>Insulation resistance at 100 V&lt;sub&gt;DC&lt;/sub&gt;</strong></td>
<td></td>
<td>&gt;10</td>
<td>GΩ</td>
</tr>
<tr>
<td><strong>Capacitance at 1 MHz</strong></td>
<td>&lt;1.5</td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td><strong>Arc voltage at 1 A</strong></td>
<td>~12</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Glow to arc transition current</td>
<td>&lt;0.1</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td><strong>Glow voltage</strong></td>
<td>~60</td>
<td></td>
<td>V</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>~1.5</td>
<td></td>
<td>g</td>
</tr>
<tr>
<td><strong>Operation and storage temperature</strong></td>
<td>−40...+90</td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td><strong>Climatic category (IEC 60068-1)</strong></td>
<td>40/90/21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Marking, red positive**

**EPCOS EC 470 YY O**

- EC = Series
- 470 = Nominal voltage
- YY = Year of production
- O = Non radioactive

**Certifications**

- UL 497B (E163070)
- UL 1449 (E319264)

1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode

Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.
Dimensional drawing in mm

Ordering code and packing advice
B88069X5740S102 = 100 pcs. on 5 taped stripes
Soldering parameter

Wave soldering

Wave profile features
Pb-free assembly
- Solder: Sn 95.5 / Ag 3.8 / Cu 0.7
- Solder bath temperature: 263 (±3) °C
- Dwell time: < 3 s

Cautions and warnings

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- Surge arresters may become hot in the event of longer periods of current stress (burn risk). In the event of overload the connectors may fail or the component may be destroyed.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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