Surge arrester

2-electrode arrester

Series/Type: EC90XB1
Ordering code: B88069X4361****
Version/Date: Issue 03 / 2015-01-13
**Surge arrester B88069X4361****

**2-electrode arrester EC90XB1**

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### 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

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### Electrical specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DC spark-over voltage 1)2)</th>
<th>Impulse spark-over voltage</th>
<th>Service life</th>
<th>Insulation resistance at 50 V&lt;sub&gt;DC&lt;/sub&gt;</th>
<th>Capacitance at 1 MHz</th>
<th>Arc voltage at 1 A</th>
<th>Glow to arc transition current</th>
<th>Glow voltage</th>
<th>Weight</th>
<th>Operation and storage temperature</th>
<th>Climatic category (IEC 60068-1)</th>
<th>Marking, red positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC spark-over voltage</td>
<td>90 V ±20 %</td>
<td>&lt;500 V &lt;450 V &lt;600 V &lt;550 V</td>
<td>5 A</td>
<td>&gt;10 GΩ</td>
<td>&lt;1.5 pF</td>
<td>~12 V</td>
<td>&lt;0.8 V</td>
<td>~55 V</td>
<td>~1.5 g</td>
<td>~40 ... +90 °C</td>
<td>40/ 90/ 21</td>
<td>EPCOS EC 90 YY O</td>
</tr>
<tr>
<td>Tolerance</td>
<td></td>
<td></td>
<td></td>
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<td>EC - Series</td>
</tr>
<tr>
<td>Min.</td>
<td>72 V</td>
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<td></td>
<td>90 - Nominal voltage</td>
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<tr>
<td>Max.</td>
<td>108 V</td>
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<td></td>
<td></td>
<td>YY - Year of production</td>
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<tr>
<td>Impulse spark-over voltage</td>
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<td></td>
<td>O - Non radioactive</td>
</tr>
<tr>
<td>at 100 V/µs</td>
<td>- for 99% of measured values</td>
<td>- typical values of distribution</td>
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<tr>
<td>at 1 kV/µs</td>
<td>- for 99% of measured values</td>
<td>- typical values of distribution</td>
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<tr>
<td>Service life</td>
<td>10 operations 50 Hz, 1 s</td>
<td>1 operation 50 Hz, 0.18 s (9 cycles)</td>
<td>1 operation 8/20 µs</td>
<td>1 operation 10/350 µs</td>
<td>300 operations 10/1000 µs</td>
<td>5 kA</td>
<td>10 kA</td>
<td>1 kA</td>
<td>100 A</td>
<td>40/ 90/ 21</td>
<td>EPCOS EC 90 YY O</td>
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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 codes and packing advices

*B88069X4361C102* = 100 pcs. on container

*B88069X4361C502* = 500 pcs. on container
Soldering parameter

Wave soldering

![Wave soldering profile](image)

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

Soldering profile applied to a single soldering process.

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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