Surge arrester

2-electrode arrester

Series/Type: EC90XG
Ordering code: B88069X5110T502
Date: 2019-07-09
Version: 05
Surge arrester

B88069X5110T502

2-electrode arrester

EC90XG

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>DC spark-over voltage</th>
<th>Impulse spark-over voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90 V</td>
<td>&lt; 500 V</td>
</tr>
<tr>
<td>Tolerance</td>
<td>±20%</td>
<td>&lt; 450 V</td>
</tr>
<tr>
<td>Min.</td>
<td>72 V</td>
<td>&lt; 600 V</td>
</tr>
<tr>
<td>Max.</td>
<td>108 V</td>
<td>&lt; 550 V</td>
</tr>
</tbody>
</table>

- for 99% of measured values
- typical values of distribution

<table>
<thead>
<tr>
<th>Feature</th>
<th>Service life</th>
<th>Insulation resistance at 50 V&lt;sub&gt;DC&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>50 Hz, 1 s</td>
<td>&gt; 10 GΩ</td>
</tr>
<tr>
<td>1</td>
<td>50 Hz, 0.18 s (9 cycles)</td>
<td>20 A</td>
</tr>
<tr>
<td>10</td>
<td>8/20 µs</td>
<td>5 kA</td>
</tr>
<tr>
<td>1</td>
<td>8/20 µs</td>
<td>10 kA</td>
</tr>
<tr>
<td>1</td>
<td>10/350 µs</td>
<td>1 kA</td>
</tr>
<tr>
<td>300</td>
<td>10/1000 µs</td>
<td>100 A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Capacitance at 1 MHz</th>
<th>Arc voltage at 1 A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 1.5 pF</td>
<td>~ 12 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt; 0.8 A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ 55 V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</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></td>
<td>~ 1.5 g</td>
<td>−40 ... +125 °C</td>
<td>40/125/21</td>
<td>EPCOS EC 90 YY O</td>
</tr>
</tbody>
</table>

1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
Terms in accordance with ITU-T Rec. K.12 and IEC 61643-311.
Dimensional drawing in mm

Ordering codes and packing advices

*B88069X5110T502 = 500 pcs. on tape and reel*
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

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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