Surge arrester

2-electrode arrester

Series/Type: EM500X
Ordering code: B88069X2780S102
Date: 2019-04-04
Version: 04
Features
- Small size
- Fast response time
- High current handling capability
- Stable performance over service life
- Low capacitance and insertion loss
- High insulation resistance
- RoHS-compatible

Applications
- Power supplies
- Antenna protection
- Air condition
- Modem
- Consumer electronics
- Dataline protection

Electrical specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>DC spark-over voltage 1) 2)</th>
<th>Impulse spark-over voltage</th>
<th>Service life</th>
<th>Insulation resistance at 100 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>
<th>Certifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance</td>
<td>±20%</td>
<td>&lt;950 V</td>
<td>10 operations</td>
<td>&gt; 1 GΩ</td>
<td>&lt; 1 pF</td>
<td>~ 10 V</td>
<td>&lt; 0.3 A</td>
<td>~ 60 V</td>
<td>~ 1 g</td>
<td>−40 ... +125 °C</td>
<td>40/125/21</td>
<td>EM 500 YY O</td>
<td>UL 497B (E163070)</td>
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<tr>
<td>Min.</td>
<td>400 V</td>
<td></td>
<td>1 operation</td>
<td></td>
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<td>UL 1449 (E319264)</td>
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<tr>
<td>Max.</td>
<td>600 V</td>
<td></td>
<td>10 operations</td>
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</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 code and packing advice
B88069X2780S102 = 100 pcs. on 5 taped stripes

tape acc. to IEC 60286-1

box for 5 x 20 pcs
Soldering parameter

Wave soldering

[Diagram of wave soldering profile]

- Normal curve
- Limit curve

- 235 °C - 260 °C
- 1st wave
- approx. 200 °C
- Second wave
- 500 °C
- 10 s
- Cooling

Wave profile features

- Pb-free assembly

<table>
<thead>
<tr>
<th>Wave profile features</th>
<th>Sn 95.5 / Ag 3.8 / Cu 0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solder bath temperature</td>
<td>263 (±3) °C</td>
</tr>
<tr>
<td>Dwell time</td>
<td>&lt; 3 s</td>
</tr>
</tbody>
</table>

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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