Surge arrester

2-electrode arrester

<table>
<thead>
<tr>
<th>Series/Type:</th>
<th>EM2000X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering code:</td>
<td>B88069X5600****</td>
</tr>
<tr>
<td>Date:</td>
<td>2019-09-20</td>
</tr>
<tr>
<td>Version:</td>
<td>05</td>
</tr>
</tbody>
</table>
### Features
- Small size
- Fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

### Applications
- Power supplies
- Modem
- Consumer electronics
- AC power line devices

### Electrical specifications

<table>
<thead>
<tr>
<th>DC spark-over voltage</th>
<th>2000</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerance</td>
<td>±20</td>
<td>%</td>
</tr>
<tr>
<td>Min.</td>
<td>1600</td>
<td>V</td>
</tr>
<tr>
<td>Max.</td>
<td>2400</td>
<td>V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impulse spark-over voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 100 V/µs</td>
</tr>
<tr>
<td>- for 99% of measured values</td>
</tr>
<tr>
<td>- typical values of distribution</td>
</tr>
<tr>
<td>at 1 kV/µs</td>
</tr>
<tr>
<td>- for 99% of measured values</td>
</tr>
<tr>
<td>- typical values of distribution</td>
</tr>
</tbody>
</table>

### Service life

<table>
<thead>
<tr>
<th>Operation</th>
<th>50 Hz, 1 s</th>
<th>8/20 µs</th>
<th>8/20 µs</th>
<th>8/20 µs</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 operations</td>
<td>1.5 A</td>
<td>100 A</td>
<td>2 kA</td>
<td>2.5 kA</td>
</tr>
<tr>
<td>300 operations</td>
<td>10 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 operation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Insulation resistance at 100 V<sub>dc</sub>
- > 1 GΩ

### Capacitance at 1 MHz
- < 1 pF

### Arc voltage at 1 A
- ~ 30 V

### Glow to arc transition current
- < 0.5 A

### Glow voltage
- ~ 85 V

### Weight
- ~ 0.7 g

### Operation and storage temperature
- -40 ... +125 °C

### Climatic category (IEC 60068-1)
- 40/125/21

### Marking, red positive
- EPCOS EM 2000 YY O

### Certifications
- UL 1449 (E319264)

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1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
3) Voltage withstand test AC 900 V, 1 min

Terms in accordance with ITU-T Rec. K. 12 and IEC 61643-311.
Surge arrester

B88069X5600****

2-electrode arrester

EM2000X

Dimensional drawing in mm

Ordering codes and packing advices

B88069X5600S102 = 100 pcs. on 5 taped stripes

B88069X5600T502 = 500 pcs. on tape & reel
Soldering parameter

Wave soldering

![Wave soldering profile](image)

Soldering profile applied to a single soldering process.

c| 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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