Surge arrester

2-electrode arrester

Series/Type: EF470X
Ordering code: B88069X5080****
Date: 2019-04-19
Version: 09
Features

- Standard size
- High follow current capability
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Application with high follow current
- Power supply
- Consumer electronics
- AC power line devices

Electrical specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC spark-over voltage 1) 2)</td>
<td>470 V</td>
<td>V</td>
</tr>
<tr>
<td>Tolerance</td>
<td>−15/+25</td>
<td>%</td>
</tr>
<tr>
<td>Min.</td>
<td>400 V</td>
<td>V</td>
</tr>
<tr>
<td>Max.</td>
<td>588 V</td>
<td>V</td>
</tr>
<tr>
<td>Impulse spark-over voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>at 100 V/µs for 99% of measured values</td>
<td>&lt; 700 V</td>
<td>V</td>
</tr>
<tr>
<td>- typical values of distribution</td>
<td>&lt; 600 V</td>
<td>V</td>
</tr>
<tr>
<td>at 1 kV/µs for 99% of measured values</td>
<td>&lt; 800 V</td>
<td>V</td>
</tr>
<tr>
<td>- typical values of distribution</td>
<td>&lt; 700 V</td>
<td>V</td>
</tr>
<tr>
<td>Service life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 operations 50 Hz, 1 s</td>
<td>5 A</td>
<td>A</td>
</tr>
<tr>
<td>1 operation 50 Hz, 0.18 s (9 cycles)</td>
<td>65 A</td>
<td>A</td>
</tr>
<tr>
<td>10 operations 8/20 µs</td>
<td>5 kA</td>
<td>kA</td>
</tr>
<tr>
<td>1 operation 8/20 µs</td>
<td>10 kA</td>
<td>kA</td>
</tr>
<tr>
<td>1 operation 10/350 µs</td>
<td>1 kA</td>
<td>kA</td>
</tr>
<tr>
<td>Max. follow current during one voltage half cycle at 50 Hz</td>
<td>200 A</td>
<td>A</td>
</tr>
<tr>
<td>Insulation resistance at 100 V_{DC}</td>
<td>&gt; 10 GΩ</td>
<td>GΩ</td>
</tr>
<tr>
<td>Capacitance at 1 MHz</td>
<td>&lt; 1.5 pF</td>
<td>pF</td>
</tr>
<tr>
<td>Arc voltage at 1 A</td>
<td>~ 18 V</td>
<td>V</td>
</tr>
<tr>
<td>Glow to arc transition current</td>
<td>&lt; 0.3 A</td>
<td>A</td>
</tr>
<tr>
<td>Glow voltage</td>
<td>~ 150 V</td>
<td>V</td>
</tr>
<tr>
<td>Weight</td>
<td>~ 1.5 g</td>
<td>g</td>
</tr>
<tr>
<td>Operation and storage temperature</td>
<td>−40 ... +125 °C</td>
<td>°C</td>
</tr>
<tr>
<td>Climatic category (IEC 60068-1)</td>
<td>40/125/21</td>
<td></td>
</tr>
</tbody>
</table>

Marking, red positive

EPCOS EF 470 YY O

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

Continued on next page
Surge arrester

2-electrode arrester

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 and IEC 61643-311.

Dimensional drawing in mm

Ordering code and packing advice

B88069X5080S102 = 100 pcs. on 5 taped stripes
B88069X5080T502 = 500 pcs. on tape and reel

Please read Cautions and warnings and Important notes at the end of this document.
Soldering parameter

Wave soldering

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.
- The follow current must be limited (see page 2) so that the arrester can be properly extinguished when the surge has decayed. The arrester might otherwise heat up and ignite adjacent components.
- 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.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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