Surge arrester

3-electrode arrester

Series/Type: T23-A420XF1
Ordering code: B88069X6210B502
Date: 2016-03-14
Version: 03
Surge arrester
B88069X6210B502
3-electrode arrester
T23-A420XF1

Features
- Standard size
- Fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- Reliable failsafe device
- RoHS-compatible

Applications
- Base stations
- Line protection
- Station protection

Electrical specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC spark-over voltage</td>
<td>420 V</td>
</tr>
<tr>
<td>Impulse spark-over voltage</td>
<td>&lt; 750 V</td>
</tr>
<tr>
<td>Service life</td>
<td>10 A</td>
</tr>
<tr>
<td>Insulation resistance at 100 V&lt;sub&gt;dc&lt;/sub&gt;</td>
<td>&gt; 10 GΩ</td>
</tr>
<tr>
<td>Capacitance at 1 MHz</td>
<td>&lt; 1.5 pF</td>
</tr>
<tr>
<td>Transverse delay time</td>
<td>&lt; 0.2 µs</td>
</tr>
<tr>
<td>Arc voltage at 1 A</td>
<td>~ 35 V</td>
</tr>
<tr>
<td>Glow voltage</td>
<td>~ 200 V</td>
</tr>
<tr>
<td>Weight</td>
<td>~ 2 g</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40 ... +90 °C</td>
</tr>
<tr>
<td>Climatic category (IEC 60068-1)</td>
<td>40/090/21</td>
</tr>
</tbody>
</table>

EPCOS
420 YY M O
420 - Nominal voltage
YY - Year of production
M - Month of production
(1 ... 9 = Jan ... Sep
O ... D = Oct ... Dec)
O - Non radioactive

Continued on next page
Certifications

UL 497B (E163070)

1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode
3) Tip or ring electrode to center electrode
4) Total current through center electrode, half value through tip respectively ring electrode.
5) Test according to ITU-T Rec. K.12

Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

The arrester failsafe mechanism contains a solder pellet with a melting temperature between 193 and 203 °C.

Failsafe characteristic diagram
For arrester only, characteristic can differ in assembled module.
Dimensional drawing in mm

Ordering code and packing advice

B88069X6210B502 = 500 pcs. on trays
**Surge arrester B88069X6210B502**

**3-electrode arrester T23-A420XF1**

### Soldering parameter

**Wave soldering**

![Wave soldering diagram](image)

- **Wave profile features** for 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

- Depending on the sensor material, the short-circuit spring does not trigger until 180 °C is reached. Thermal radiation to adjacent components must be taken into consideration in the circuit design. Depending on the mounting position, the surge arrester may have to be secured by additional mechanical means.
- Do not continue to use surge arresters whose short-circuit mechanisms have been activated.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- 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.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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