



## Surge arrester

### 3-electrode arrester

**Series/Type:** T23-A420XF1  
**Ordering code:** B88069X6210B502  
**Version/Date:** Issue 02 / 2007-04-23

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| Features   | Applications   |
|--|--|
| <ul style="list-style-type: none"> <li>▪ Standard size</li> <li>▪ Fast response time</li> <li>▪ Very high current rating</li> <li>▪ Stable performance over life</li> <li>▪ Very low capacitance</li> <li>▪ High insulation resistance</li> <li>▪ RoHS-compatible</li> </ul> | <ul style="list-style-type: none"> <li>▪ Line protection</li> <li>▪ Station protection</li> <li>▪ Base stations</li> </ul> |

**Electrical specifications**

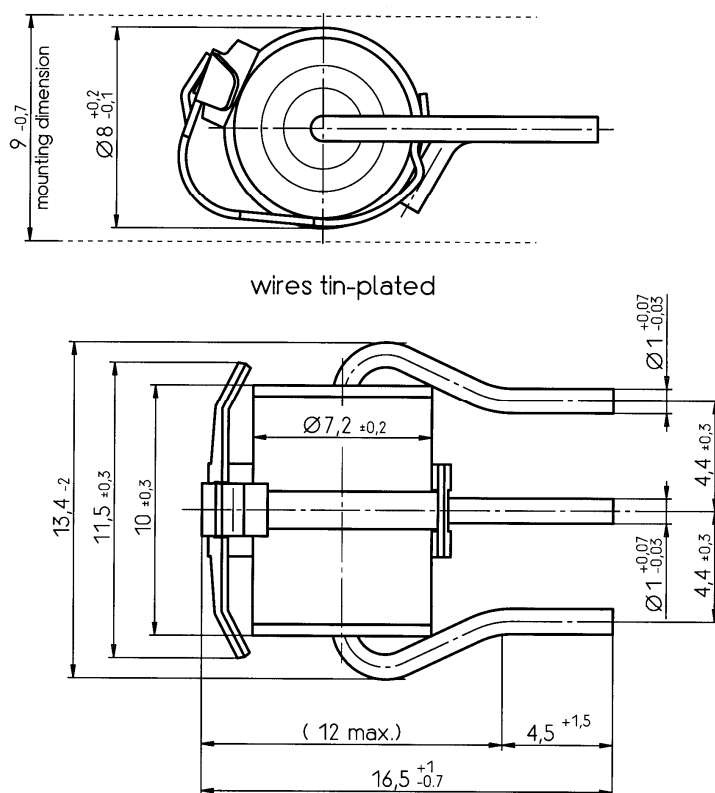
|  |  |    |
|--|--|----|
| DC spark-over voltage <sup>1) 2) 4)</sup>                  | 350 ... 550  | V  |
| Impulse spark-over voltage <sup>4)</sup>                   |  |    |
| at 100 V/μs - for 99 % of measured values                  | < 750  | V  |
| - typical values of distribution                           | < 700  | V  |
| at 1 kV/μs - for 99 % of measured values                   | < 850  | V  |
| - typical values of distribution                           | < 800  | V  |
| Service life   |  |    |
| 10 operations      50 Hz; 1 s <sup>5)</sup>                | 10   | A  |
| 1 operation       50 Hz; 9 cycles <sup>5)</sup>            | 50   | A  |
| 10 operations      8/20 μs <sup>5)</sup>                   | 20   | kA |
| 1 operation       8/20 μs <sup>5)</sup>                    | 25   | kA |
| 1 operation       10/350 μs <sup>5)</sup>                  | 5  | kA |
| Insulation resistance at 100 V <sub>dc</sub> <sup>4)</sup> | > 10   | GΩ |
| Capacitance at 1 MHz <sup>4)</sup>                         | < 1.5  | pF |
| Transverse delay time <sup>3)</sup>                        | < 0.2  | μs |
| Arc voltage at 1 A   | ~ 30   | V  |
| Glow to arc transition current                             | ~ 1  | A  |
| Glow voltage   | ~ 200  | V  |
| Weight   | ~ 2.5  | g  |
| Storage temperature  | -40 ... +90  | °C |
| Climatic category (IEC 60068-1)                            | 40/ 90/ 21   |    |
| Marking, blue negative                                     | <b>EPCOS</b><br><b>420 YY M O</b><br>420 - Nominal voltage<br>YY - Year of production<br>M - Month of production<br>(1 ... 9 = Jan ... Sep;<br>O ... D = Oct ... Dec)<br>O - Non radioactive |    |

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

Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE0845

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

### Dimensional drawing



Not to scale

Dimensions in mm

Non controlled document

### Cautions and warnings

- The short-circuit spring does not trigger until 180 °C is reached depending on the material. Care must be taken to limit the thermal radiation onto adjacent parts to safe values.
- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

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