



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Surge arrester

3-electrode arrester

**Series/Type:** T20-A420XF  
**Ordering code:** B88069X7580B502  
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**

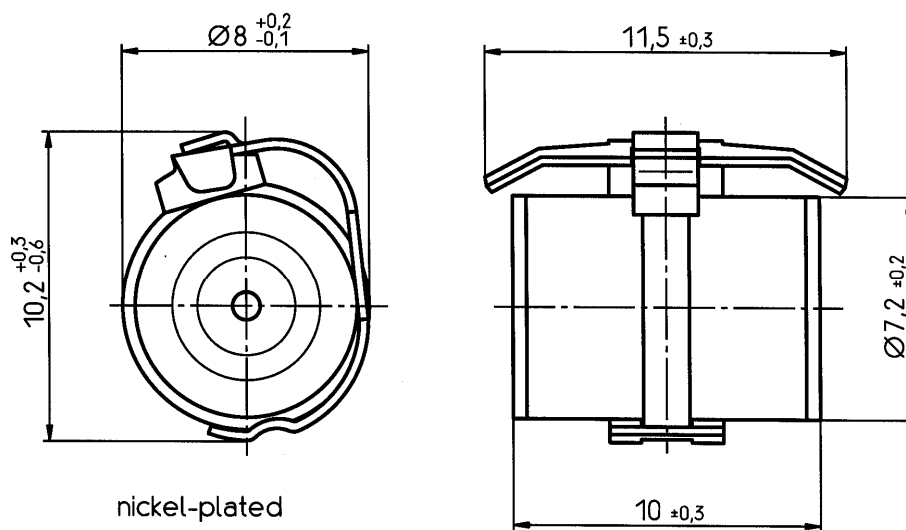
|  |  |    |
|--|--|----|
| DC spark-over voltage <sup>1) 2) 4)</sup>                  | 350 ... 550  | V  |
| Impulse spark-over voltage <sup>4)</sup>                   |  |    |
| at 100 V/μs - for 99 % of measured values                  | < 750  | V  |
| - typical values of distribution                           | < 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   | ~ 2.2  | 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.



## Important notes

The following applies to all products named in this publication:

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