

# Surge arrester

3-electrode arrester

Series/Type: T23-A420XF1
Ordering code: B88069X6210B502

Version/Date: Issue 02 / 2007-04-23

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3-electrode arrester T23-A420XF1

Features	Applications
<ul> <li>Standard size</li> </ul>	Line protection
<ul> <li>Fast response time</li> </ul>	Station protection
<ul> <li>Very high current rating</li> </ul>	Base stations
<ul> <li>Stable performance over life</li> </ul>	
<ul> <li>Very low capacitance</li> </ul>	
<ul> <li>High insulation resistance</li> </ul>	
<ul> <li>RoHS-compatible</li> </ul>	

## **Electrical specifications**

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

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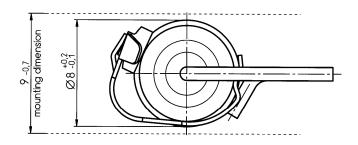
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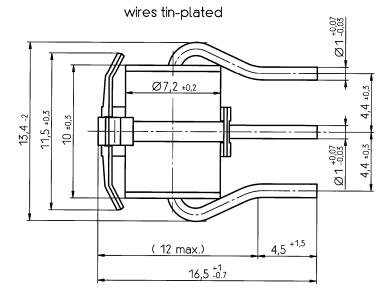
- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Test according to ITU-T Rec. K.12
- 4) Tip or ring electrode to center electrode
- Total current through center electrode, half value through tip respectively ring electrode.

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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