



Surge arrester

3-electrode arrester

Series/Type: T33-A250XF1
Ordering code: B88069X3971B502
Version/Date: Issue 02 / 2006-06-08

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| Features | Applications |
|---|--|
| <ul style="list-style-type: none"> ▪ Very small size ▪ Extremely fast response time ▪ High current rating ▪ Stable performance over life ▪ Extremely low capacitance ▪ High insulation resistance ▪ Reliable fail safe device ▪ RoHS-compatible | <ul style="list-style-type: none"> ▪ Branch exchange (MDF) ▪ Line protection ▪ Station protection |

Electrical specifications

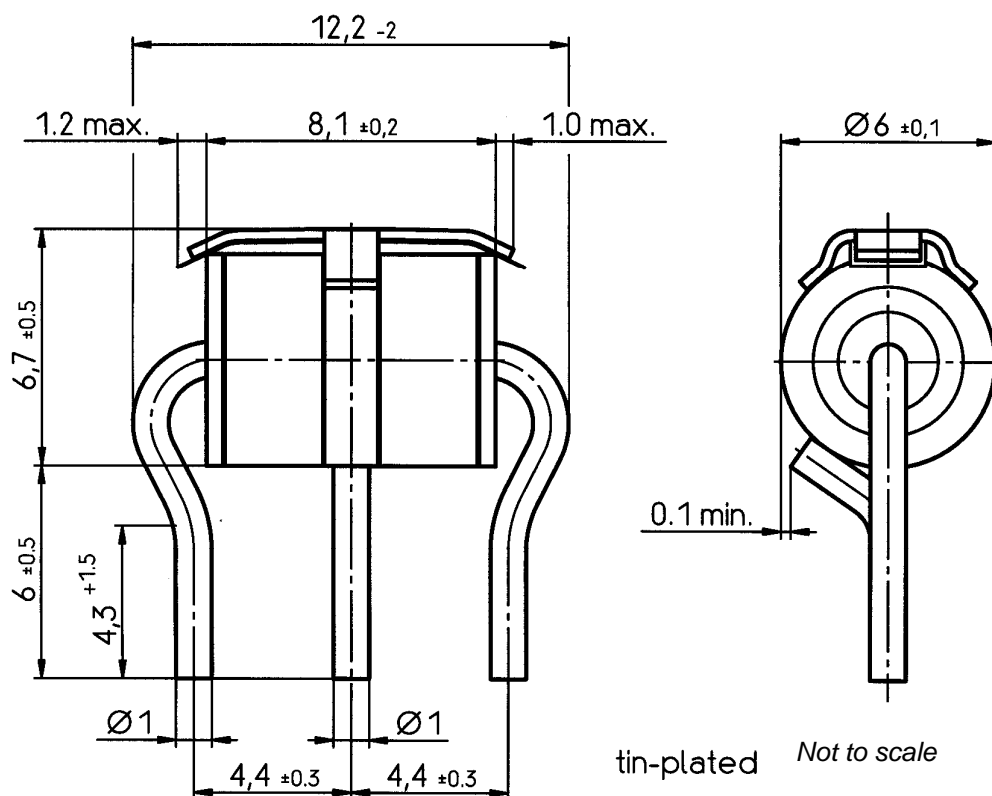
| | | |
|--|--|----|
| DC spark-over voltage (line to ground) ^{1) 2)) 4)} | 200 ... 300 | V |
| DC spark-over voltage (line to line) ^{1) 2) 6)} | 200 ... 450 | V |
| Impulse spark-over voltage ⁴⁾ | | |
| at 100 V/μs - for 99 % of measured values | < 500 | V |
| - typical values of distribution | < 400 | V |
| at 1 kV/μs - for 99 % of measured values | < 550 | V |
| - typical values of distribution | < 450 | V |
| Nominal impulse discharge current (wave 8/20 μs) ⁵⁾ | 10 | kA |
| Single impulse discharge current (wave 8/20 μs) ⁵⁾ | 10 | kA |
| Nominal alternating discharge current (50 Hz, 1 s) ⁵⁾ | 5 | A |
| Insulation resistance at 100 V _{dc} ⁴⁾ | > 10 | GΩ |
| Capacitance at 1 MHz ⁴⁾ | < 1.5 | pF |
| Transverse delay time ³⁾ | < 0.2 | μs |
| Arc voltage at 1 A | ~ 30 | V |
| Glow to arc transition current | ~ 1 | A |
| Glow voltage | ~ 200 | V |
| Weight | ~ 1.4 | g |
| Storage temperature | -40 ... +90 | °C |
| Climatic category (IEC 60068-1) | 40/ 90/ 21 | |
| Marking, blue negative | EPCOS 250 YY O 250 - Nominal voltage YY - Year of production 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.
- 6) Tip or ring electrode (L1) to tip or ring electrode (L2)

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

Arrester fail safe works at temperatures > 260 °C. The arrester has to be fixed mechanically, if the arrester is contacted by soldering and if the solder temperature is less than 260 °C.

Dimensional drawing



tin-plated
Not to scale
Dimensions in mm

Non controlled document

Cautions and warnings

- The short-circuit spring does not trigger until 260 °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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