



Surge arrester

3-electrode arrester

Series/Type: T33-A230XF1
Ordering code: B88069X9550B502
Version/Date: Issue 08 / 2007-11-22

| 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 failsafe device ▪ RoHS-compatible | <ul style="list-style-type: none"> ▪ Line protection ▪ Station protection ▪ Base stations |

Electrical specifications

| | | |
|---|--|--------|
| DC spark-over voltage ^{1) 2) 4)} | 230 ± 20 | V % |
| Impulse spark-over voltage ⁴⁾ | | |
| at 100 V/μs - for 99 % of measured values | < 400 | V |
| - typical values of distribution | < 350 | V |
| at 1 kV/μs - for 99 % of measured values | < 450 | V |
| - typical values of distribution | < 420 | V |
| Service life | | |
| 10 operations 50 Hz; 1 s ^{5) 6)} | 10 | A |
| 1 operation 50 Hz; 0.18 s (9 cycles) ⁵⁾ | 30 | A |
| 10 operations [5x (+) & 5x (-)] 8/20 μs ⁵⁾ | 10 | kA |
| 1 operation 8/20 μs ⁵⁾ | 10 | kA |
| 1 operation 10/350 μs ⁵⁾ | 2 | kA |
| 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 230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive | |

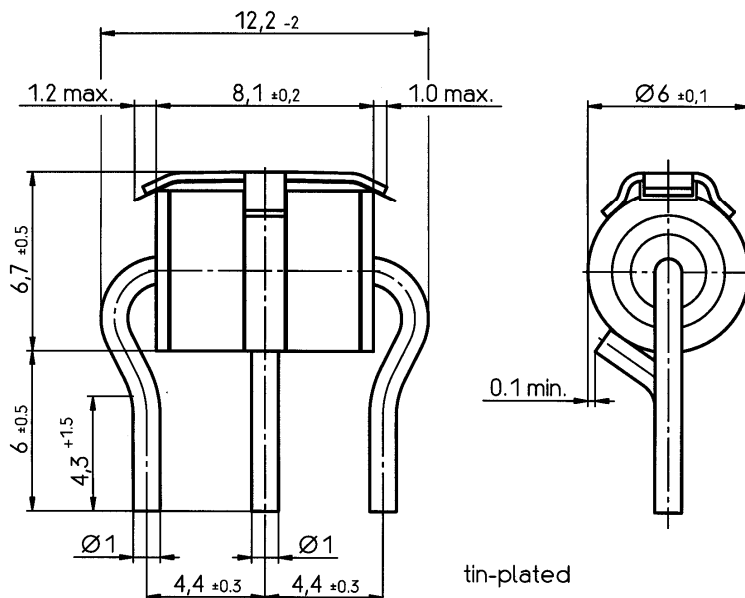
- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Test according to ITU-T Rec. K.12
- 4) Tip or ring electrode to center electrode
- 5) Total current through center electrode, half value through tip respectively ring electrode.
- 6) Voltage of the current source 230 V_{RMS}

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

The arrester failsafe mechanism contains an insulating foil with a melting temperature of 260 °C.

Arrester failsafe 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



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 sensor material. Care must be taken to limit the thermal radiation onto adjacent parts to safe values.
- If the contacts of the surge arresters are defective, current stress can lead to the formation of sparks and loud noises.
- 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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