



Surge arrester

3-electrode arrester

Series/Type: T33-A230XF1
Ordering code: B88069X9550B502
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Features	Applications
- 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	- 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 - typical values of distribution	< 400 < 350	V V
at 1 kV/μs - for 99 % of measured values - typical values of distribution	< 450 < 420	V 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	

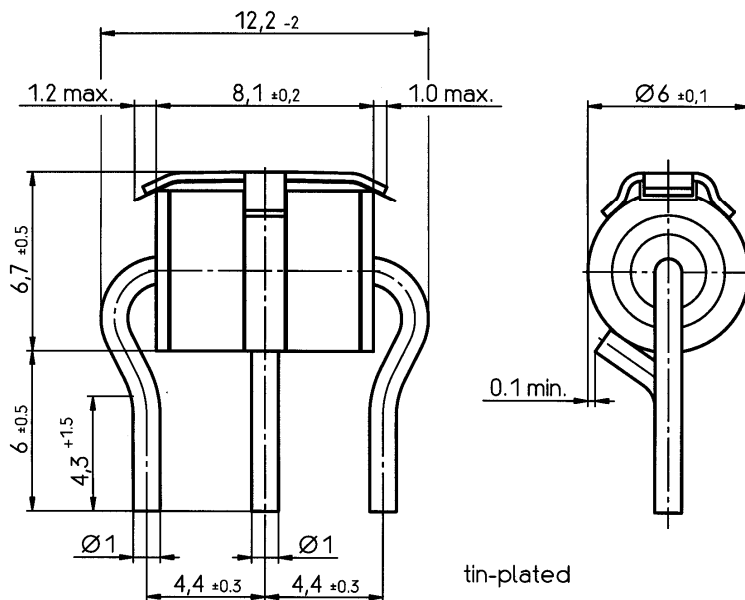
- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Test according to ITU-T Rec. K.12
- 4) Tip or ring electrode to center electrode
- 5) Total current through center electrode, half value through tip respectively ring electrode.
- 6) Voltage of the current source 230 V_{RMS}

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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