



Surge arrester

3-electrode arrester

Series/Type: EZ3-A250XF1
Ordering code: B88069X4521B502
Version/Date: Issue 02 / 2007-09-06

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

Electrical specifications

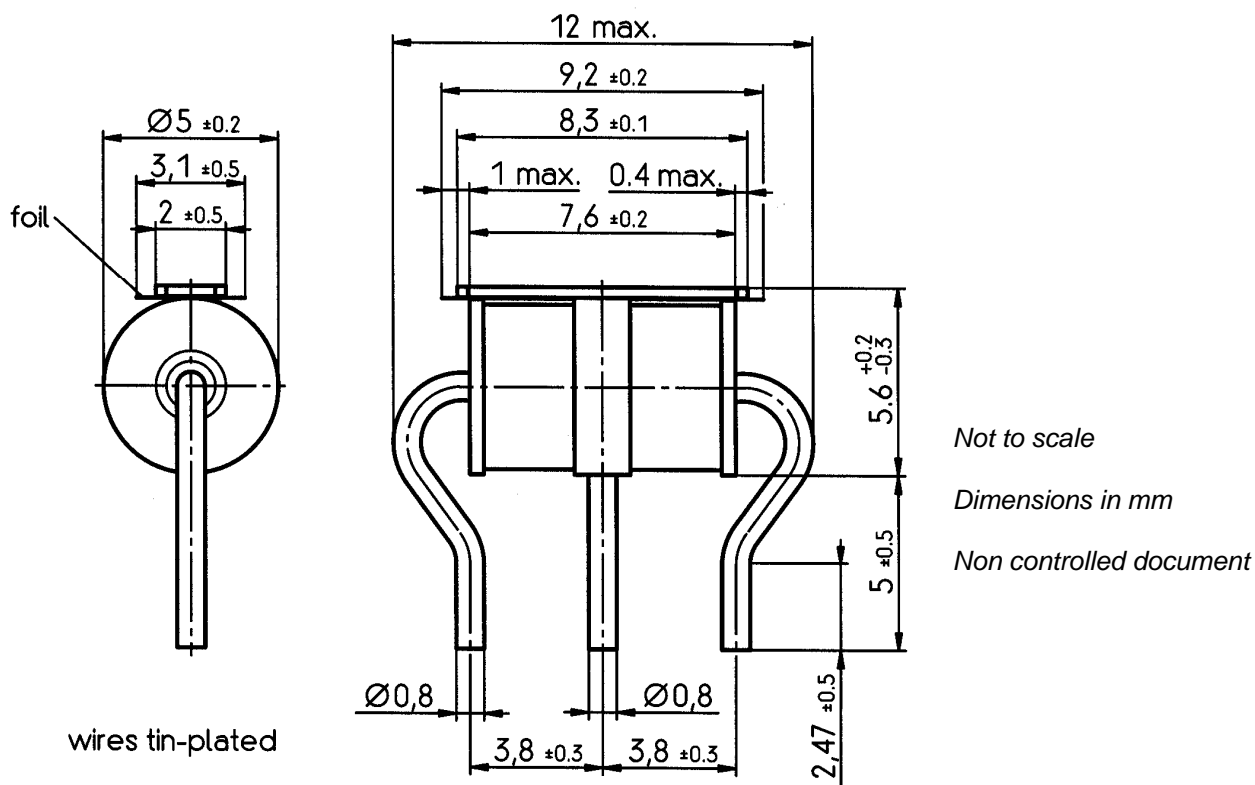
DC spark-over voltage ^{1) 2) 4)}	250 ± 20	V %
Impulse spark-over voltage ⁴⁾		
at 100 V/μs - for 99 % of measured values	< 600	V
- typical values of distribution	< 450	V
at 1 kV/μs - for 99 % of measured values	< 750	V
- typical values of distribution	< 600	V
Service life		
10 operations 50 Hz, 1 s ⁵⁾	5	A
1 operation 50 Hz, 0.18 s ⁵⁾	5	A
10 operations [5x (+) & 5x (-)] 8/20 μs ⁵⁾	5	kA
1 operation 10/350 μs ⁵⁾	1	kA
300 operations (alternating polarity) 10/1000 μs ⁵⁾	200	A
Insulation resistance at 100 V _{dc} ⁴⁾	> 1	GΩ
Capacitance at 1 MHz ⁴⁾	< 1.5	pF
DC holdover voltage ³⁾		
at 135 V _{dc} / 1300 Ω	< 150	ms
Transverse delay time ³⁾	< 0.2	μs
Arc voltage at 1 A	~ 10	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 80	V
Weight	~ 1.0	g
Storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	EPCOS EZ 250 YY O EZ - Series 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.

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

Arrester fail safe works at temperatures $> 260\text{ }^{\circ}\text{C}$. The arrester has to be fixed mechanically, if the arrester is contacted by soldering and if the solder temperature is less than $260\text{ }^{\circ}\text{C}$.

Dimensional Drawing



Cautions and warnings

- 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.
- Surge arrester with triggered short-circuit mechanism must not be re-used.

Important notes

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2. We also point out that **in individual cases, a malfunction of passive electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of a passive electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of a passive electronic component.
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