



## Surge arrester

### 3-electrode arrester

**Series/Type:** T97A-A90X1F1  
**Ordering code:** B88069X1713B502  
**Version/Date:** Issue 01 / 2012-11-08

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**Features**

- Small size
- Fast response time
- High current rating
- Stable performance over life
- Low capacitance
- High insulation resistance
- Reliable failsafe advice
- RoHS-compatible

**Applications**

- Branch exchange (MDF)
- Line protection
- Station protection

**Electrical specifications**

DC spark-over voltage <sup>1) 2) 3)</sup>	90 ± 20	V %
Impulse spark-over voltage <sup>3)</sup>		
at 100 V/μs - for 99% of measured values - typical values of distribution	< 450 < 350	V V
at 1 kV/μs - for 99% of measured values - typical values of distribution	< 600 < 500	V V
Service life		
10 operations                      50 Hz; 1 s <sup>4)</sup>	10	A
1 operation                        50 Hz; 0.18 s (9 cycl.) <sup>4)</sup>	30	A
10 operations [5x (+) & 5x (-)] 8/20 μs <sup>4)</sup>	10	kA
1 operation                        10/350 μs <sup>4)</sup>	1	kA
300 operations (+/- alternating) 10/1000 μs <sup>4)</sup>	200	A
Insulation resistance at 50 V <sub>DC</sub> <sup>3)</sup>	> 1	GΩ
Capacitance at 1 MHz <sup>3)</sup>	< 1.5	pF
Transverse delay time <sup>5)</sup>	< 0.2	μs
Arc voltage at 1 A	~ 10	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 60	V
Weight	~ 1.4	g
Storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	<b>EPCOS</b> <b>90 YY O</b> 90 - Nominal voltage YY - Year of production O - Non radioactive	

<sup>1)</sup> At delivery AQL 0.65 level II, DIN ISO 2859

<sup>2)</sup> In ionized mode

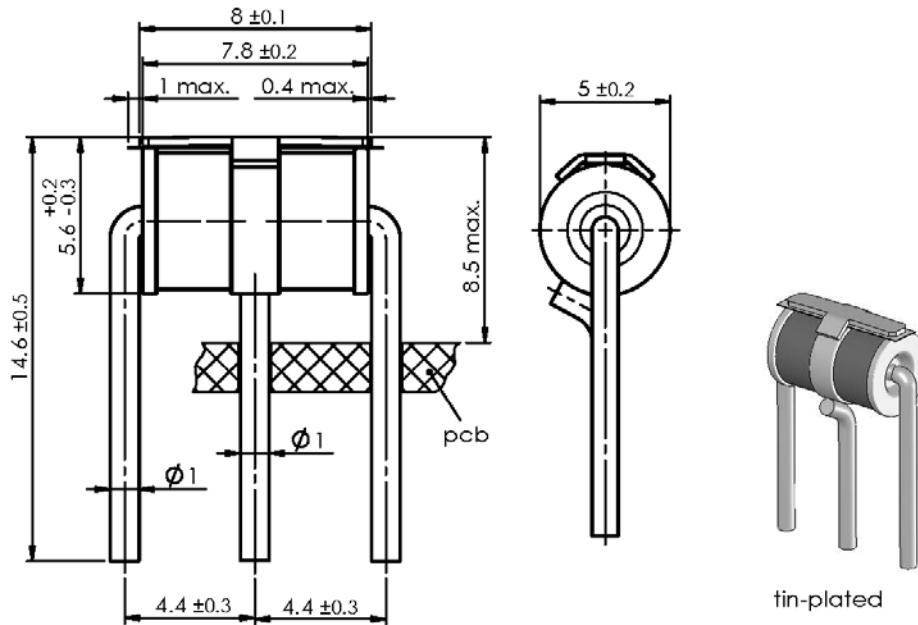
<sup>3)</sup> Tip or ring electrode to center electrode

<sup>4)</sup> Total current through center electrode, half value through tip respectively ring electrode.

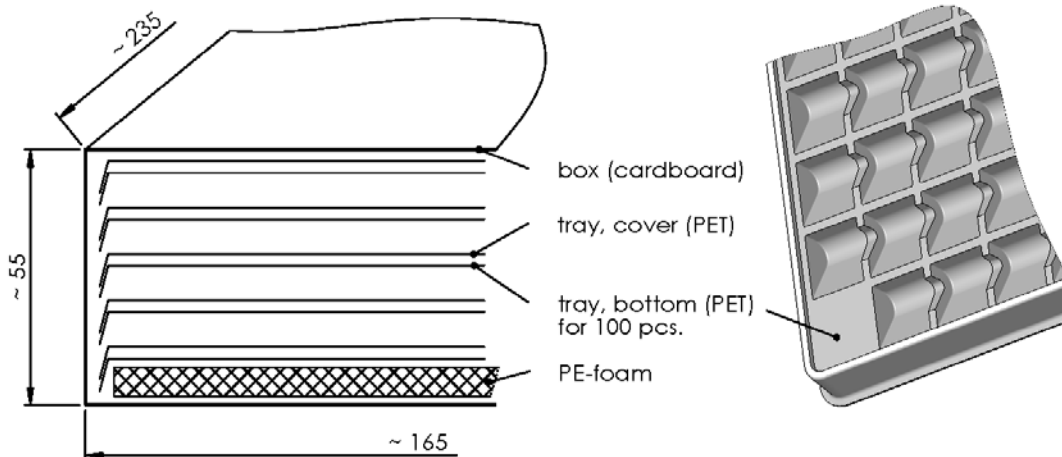
<sup>5)</sup> Test according to ITU-T Rec. K.12

Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

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 in mm**

**Ordering code and packing advice**

**B88069X1713B502** = 500 pcs. on trays


**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.
- Depending on the incorporation position, the surge arrester may have to be additionally secured by mechanical means.
- 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 lead contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

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