



## Surge arrester

### 3-electrode arrester

**Series/Type:** T33-A230X  
**Ordering code:** B88069X9800B502  
**Version/Date:** Issue 05 / 2013-05-08

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Features	Applications
<ul style="list-style-type: none"> <li>▪ Very small size</li> <li>▪ Extremely fast response time</li> <li>▪ High current rating</li> <li>▪ Stable performance over life</li> <li>▪ Extremely low capacitance</li> <li>▪ High insulation resistance</li> <li>▪ RoHS-compatible</li> </ul>	<ul style="list-style-type: none"> <li>▪ Line protection</li> <li>▪ Station protection</li> <li>▪ Base stations</li> </ul>

**Electrical specifications**

DC spark-over voltage <sup>1) 2) 3)</sup>	230 ± 20	V %
Impulse spark-over voltage <sup>3)</sup>		
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 <sup>4)</sup>	10	A
1 operation                        50 Hz; 0.18 s (9 cycles) <sup>4)</sup>	30	A
10 operations [5× (+) & 5× (-)] 8/20 μs <sup>4)</sup>	10	kA
1 operation                        8/20 μs <sup>4)</sup>	10	kA
1 operation                        10/350 μs <sup>4)</sup>	2	kA
Insulation resistance at 100 V <sub>DC</sub> <sup>3)</sup>	> 10	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	~ 30	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 200	V
Weight	~ 1.4	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	<b>EPCOS</b> <b>230 YY O</b> 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

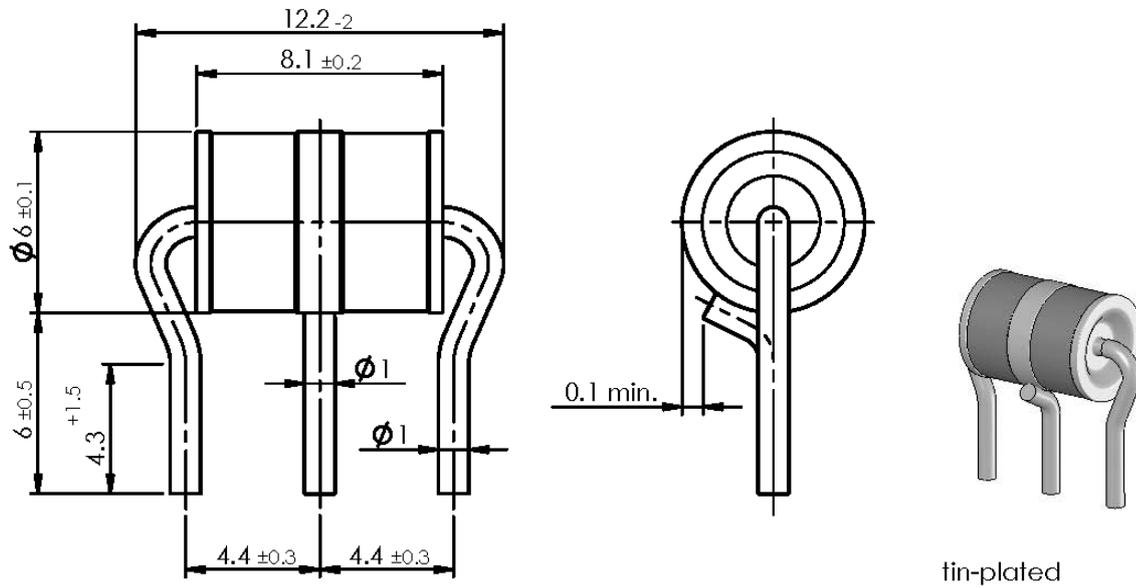
4) Tip or ring electrode to center electrode

5) Total current through center electrode, half value through tip respectively ring electrode.

3) Test according to ITU-T Rec. K.12

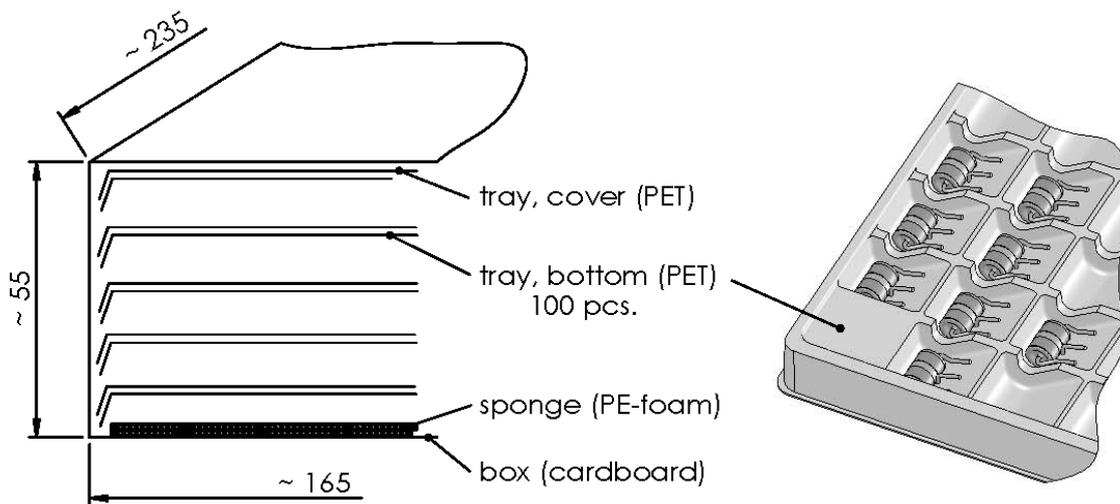
Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

Dimensional drawing in mm



Ordering code and packing advice

B88069X9800B502 = 500 pcs. on trays



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 lead contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

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