



## Surge arrester

2-electrode arrester

**Series/Type:** EM3000X  
**Ordering code:** B88069X3431\*\*\*\*  
Version/Date: Issue 02 / 2013-08-30

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**Features**

- Very small size
- Fast response time
- Stable performance over life
- Extremely low capacitance
- High insulation resistance
- RoHS-compatible

**Applications**

- AC power line devices
- Consumer electronics
- Power supply

**Electrical specifications**

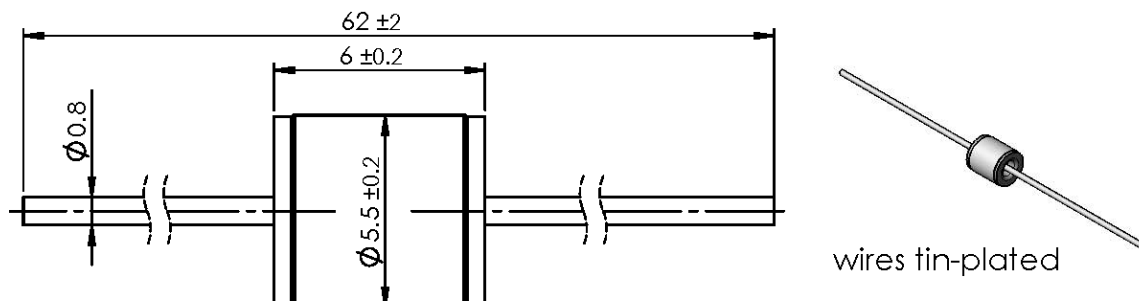
DC spark-over voltage <sup>1) 2)</sup>	2550 ... 3600	V
Impulse spark-over voltage at 100 V/μs - for 99% of measured values - typical values of distribution	< 4500 < 4000	V V
at 1 kV/μs - for 99% of measured values - typical values of distribution	< 5500 < 5000	V V
Service life <sup>3)</sup>		
10 operations 50 Hz; 1 s	1	A
300 operations 8/20 μs	100	A
3 operations 8/20 μs	2	kA
Insulation resistance at 100 V <sub>DC</sub>	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Arc voltage at 1 A	~ 15	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 80	V
Weight	~ 1	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/21	
Marking, red positive	<b>EPCOSEM 3000 YY O</b> EM - Series 3000 - Nominal voltage YY - Year of production O - Non radioactive	

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

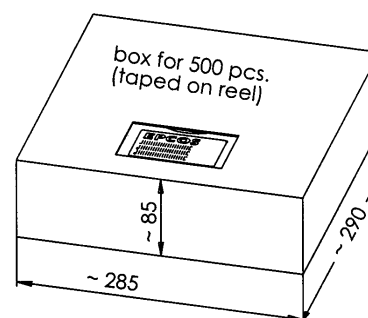
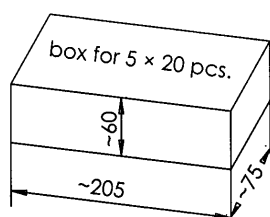
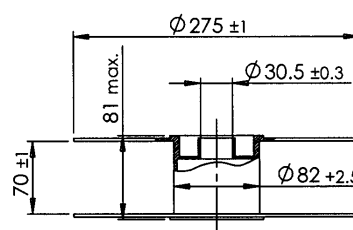
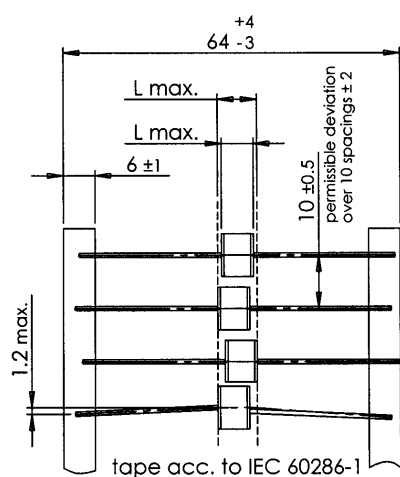
<sup>2)</sup> In ionized mode

<sup>3)</sup> Voltage withstand test AC 1500 V, 1 min.

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

**Dimensional drawing in mm**

**Ordering codes and packing advices**

 B88069X3431**S102** = 100 pcs. on 5 taped stripes

 B88069X3431**T502** = 500 pcs. on tape & reel

**Cautions and warnings**

- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in the event of longer periods of current stress (danger of burning).
- Electromagnetic fields and ionizing radiation may affect the electrical characteristics of the arresters. The impact of this kind of disturbances (inductive and capacitive comply, field distortion by nearby conductors) has to be avoided by circuit design.
- Surge arresters may be used only within their specified values. In the event of overload, the lead contacts may fail or the component may be destroyed.
- Surge arresters must be handled with care and must not be dropped.
- Damaged surge arresters must not be re-used.

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Release 2018-10