



## Surge arrester

2-electrode arrester

**Series/Type:** EM1000X  
**Ordering code:** B88069X4651xxxx <sup>a)</sup>  
Version/Date: Issue 02 / 2007-01-12

| Features  | Applications   |
|---|--|
| <ul style="list-style-type: none"> <li>▪ Very small size</li> <li>▪ Fast response time</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>▪ AC power line devices</li> <li>▪ Consumer electronics</li> <li>▪ Power supply</li> <li>▪ Modem</li> </ul> |

**Electrical specifications**

|  |   |        |
|--|---|--------|
| DC spark-over voltage <sup>1) 2)</sup>       | 1000<br>± 20  | V<br>% |
| Impulse spark-over voltage                   |   |        |
| at 100 V/μs - for 99 % of measured values    | < 1700  | V      |
| - typical values of distribution             | < 1600  | V      |
| at 1 kV/μs - for 99 % of measured values     | < 1900  | V      |
| - typical values of distribution             | < 1800  | V      |
| Service life                                 |   |        |
| 10 operations      50 Hz, 1 s                | 2   | A      |
| 3 operations      8/20 μs                    | 2   | kA     |
| 1 operation      8/20 μs                     | 2.5   | kA     |
| 300 operations    10/1000 μs                 | 100   | A      |
| Insulation resistance at 100 V <sub>dc</sub> | > 1   | GΩ     |
| Capacitance at 1 MHz                         | < 1   | pF     |
| Arc voltage at 1 A                           | ~ 11  | V      |
| Glow to arc transition current               | ~ 0.5   | 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 1000 YY O</b><br>EM      - Series<br>1000    - Nominal voltage<br>YY      - Year of production<br>O        - Non radioactive |        |

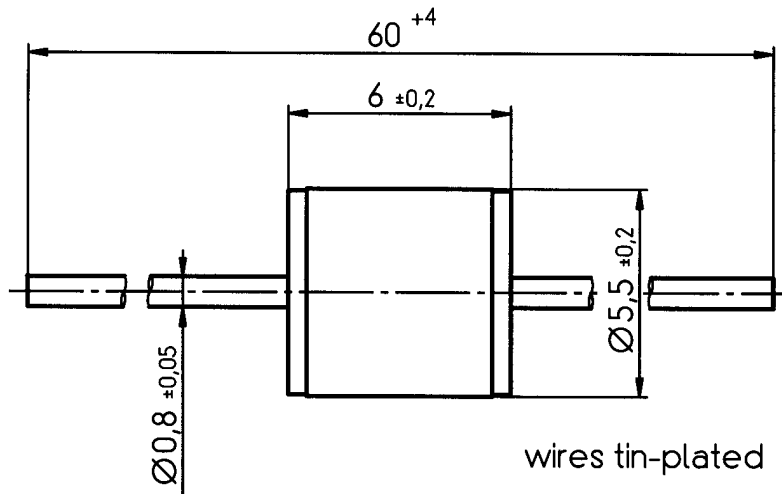
<sup>a)</sup> xxxx = S102 (100 pcs on 5 taped stripes)  
= T502 (500 pcs on tape and reel)

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

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

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

**Dimensional drawing**



*Not to scale*

*Dimensions in mm*

*Non controlled document*

**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.

## Important notes

The following applies to all products named in this publication:

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