



## **Surge arrester**

### **2-electrode arrester**

**Series/Type:** ES300XN  
**Ordering code:** B88069X4190T103  
**Version/Date:** Issue 07 / 2007-01-15

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## Surge arrester

B88069X4190T103

## 2-electrode arrester

ES300XN

| Features                                                                                                                                                                                                                                      | Applications                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Extremely small size</li> <li>Very 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>Modem</li> <li>XDSL-splitter</li> <li>Tuner</li> </ul> |

### Electrical specifications

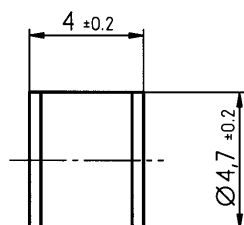
|                                              |                                                                                                                              |        |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------|
| DC spark-over voltage <sup>1) 2)</sup>       | 300<br>± 15                                                                                                                  | V<br>% |
| Impulse spark-over voltage                   |                                                                                                                              |        |
| at 100 V/μs   - for 99% of measured values   | < 480                                                                                                                        | V      |
| - typical values of distribution             | < 450                                                                                                                        | V      |
| at 1 kV/μs    - for 99% of measured values   | < 550                                                                                                                        | V      |
| - typical values of distribution             | < 500                                                                                                                        | V      |
| Service life                                 |                                                                                                                              |        |
| 10 operations   8/20 μs                      | 2.5                                                                                                                          | kA     |
| 1 operation    8/20 μs                       | 5                                                                                                                            | 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               | < 0.5                                                                                                                        | A      |
| Glow voltage                                 | ~ 130                                                                                                                        | V      |
| Weight                                       | ~ 0.3                                                                                                                        | g      |
| Operation and storage temperature            | -40 ... +90                                                                                                                  | °C     |
| Climatic category (IEC 60068-1)              | 40/ 90/ 21                                                                                                                   |        |
| Marking, red positive                        | <b>EPCOSES 300 YY O</b><br>ES    - Series<br>300   - Nominal voltage<br>YY   - Year of production<br>O     - Non radioactive |        |

<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

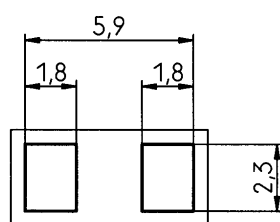


tin-plated

*Not to scale*

*Dimensions in mm*

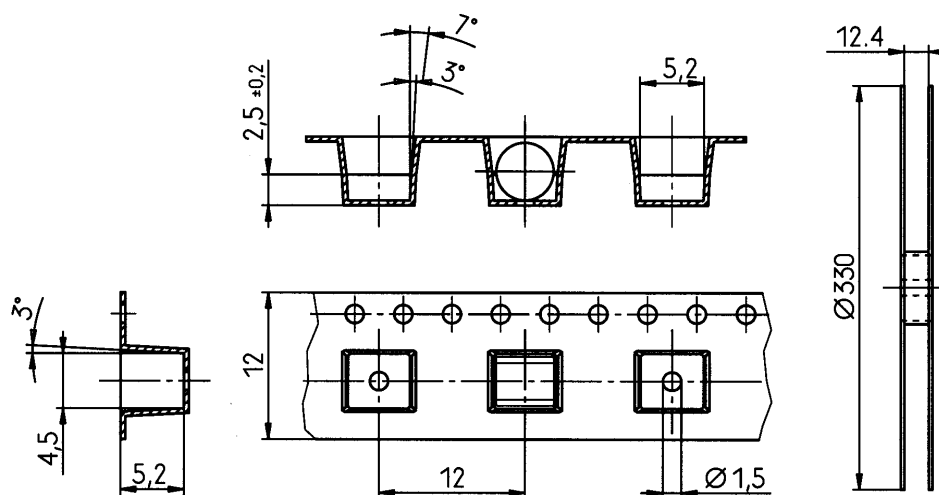
*Non controlled document*



recommended pad outline

## Packing advice

*T103 = 1000 pcs. on tape and reel*



## 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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