

Surge arrester

2-electrode arrester

Series/Type: ES90XN

Ordering code: B88069X4421****

2019-07-23 Date:

Version: 06

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2-electrode arrester ES90XN

Features

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

Applications

- Modem
- XDSL-splitter
- Data lines
- Tuner
- Antenna

Electrical specifications

| Electrical specifications | | | |
|--|------------|---|--------------|
| DC spark-over voltage 1) 2) | | 90 | V |
| Tolerance | | ±20 | % |
| Min. | | 72 | V |
| Max. | | 108 | V |
| Impulse spark-over voltage | | | |
| at 100 V/µs - for 99% of measured values | | < 450 | V |
| typical values of distribution | | < 300 | V |
| at 1 kV/µs - for 99% of measured values | | < 600 | V |
| typical values of distribution | | < 550 | V |
| Service life | | | |
| 10 operations | 50 Hz, 1 s | 2.5 | Α |
| 10 operations | 8/20 µs | 2.5 | kA |
| 10 operations [5x (+) & 5x (-)] | 10/250 μs | 1 | kA |
| 2 operations [1x (+) & 1x (-)] 10/250 μs | | 2 | kA |
| 50 operations [25x (+) & 25x (-)] | 10/1000 μs | 100 | Α |
| Insulation resistance at 50 V _{DC} | | > 1 | GΩ |
| Capacitance at 1 MHz | | < 1 | pF |
| Arc voltage at 1 A | | ~ 12 | V |
| Glow to arc transition current | | < 0.5 | Α |
| Glow voltage | | ~ 70 | V |
| Weight | | ~ 0.3 | g |
| Operation and storage temperature | | -40 + 125 | °C |
| Climatic category (IEC 60068-1) | | 40/125/21 | |
| Marking, red positive | | EPCOS ES 90 YY O ES - Series 90 - Nominal voltage YY - Year of production O - Non radioactive | |
| Certification | | UL 497B (E163070) | 71 2° |

¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859

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

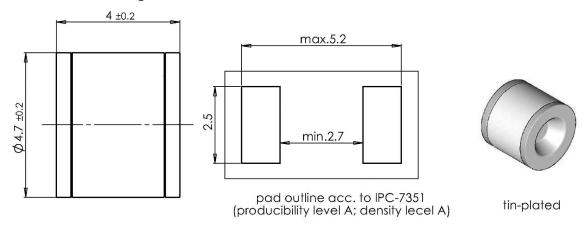
²⁾ In ionized mode



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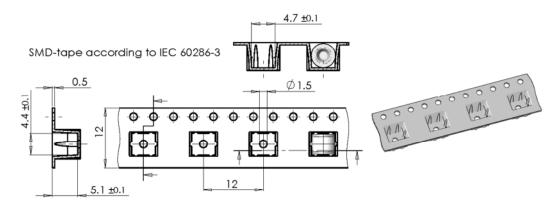
ES90XN

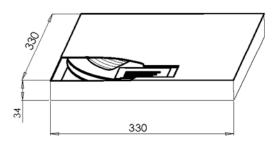
Dimensional drawing in mm



Ordering codes and packing advices

B88069X4421**T103** = 1000 pcs. on SMD-tape & reel



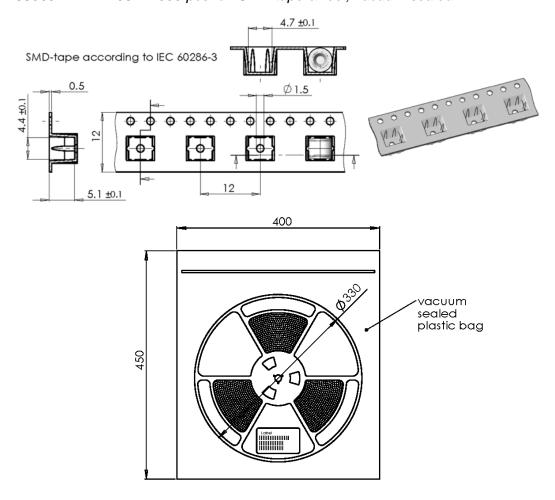


PPD AB PD / PPD AB PM Version: 06 / 2019-07-23



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B88069X4421**V103** = 1000 pcs. on SMD-tape & reel, vacuum sealed



Caution

Surge arresters are not sensitive to humidity. The vacuum bag may be damaged but this has no effect on the product performance.



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Cautions and warnings

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- Surge arresters may become hot in the event of longer periods of current stress (burn risk). In the event of overload the connectors may fail or the component may be destroyed.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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Release 2018-10

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