

# Surge arrester



## 2-electrode arrester

Series/Type: **EM90XHC**  
 Ordering code: **B88069X4293\*\*\*\***  
 Date: 2019-07-19  
 Version: 02

Surge arrester

B88069X4293\*\*\*\*

2-electrode arrester

EM90XHC

### Features

- Small size
- Fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

### Applications

- Power supplies
- Antenna protection
- Air condition
- Modem
- Consumer electronics
- Dataline protection

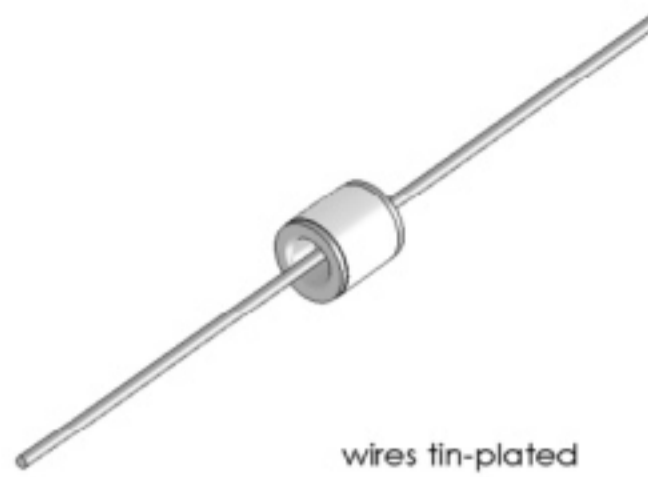
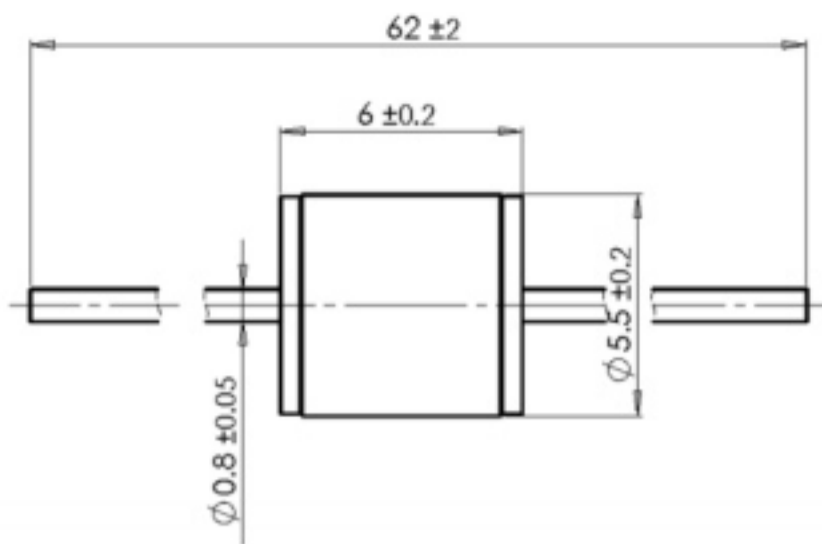
### Electrical specifications

|   |   |    |
|---|---|----|
| DC spark-over voltage <sup>1) 2)</sup>      | 90  | V  |
| Tolerance                                   | ±20   | %  |
| Min.  | 72  | V  |
| Max.  | 108   | V  |
| Impulse spark-over voltage                  |   |    |
| 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     | < 600   | V  |
| - typical values of distribution            | < 550   | V  |
| Service life                                |   |    |
| 10 operations 50 Hz, 1 s                    | 10  | A  |
| 1 operation 50 Hz, 0.18 s (9 cycles)        | 20  | A  |
| 10 operations 8/20 μs                       | 10  | kA |
| 10 operations 10/350 μs                     | 1   | kA |
| 300 operations 10/1000 μs                   | 100   | A  |
| Insulation resistance at 50 V <sub>DC</sub> | > 1   | GΩ |
| Capacitance at 1 MHz                        | < 1   | pF |
| Arc voltage at 1 A                          | ~ 10  | V  |
| Glow to arc transition current              | < 0.1   | A  |
| Glow voltage                                | ~ 50  | V  |
| Weight                                      | ~ 1   | g  |
| Operation and storage temperature           | -40 ... +125  | °C |
| Climatic category (IEC 60068-1)             | 40/125/21   |    |
| Marking, blue positive                      | <b>EPCOSEM 90 YY O</b><br>EM - Series<br>90 - 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

## Dimensional drawing in mm

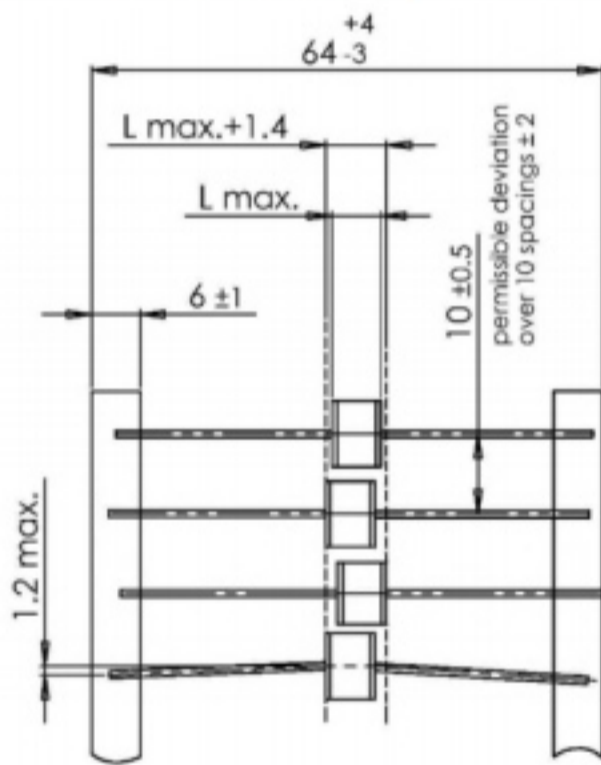


wires tin-plated

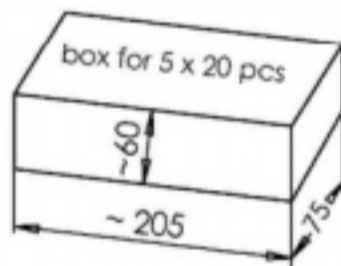
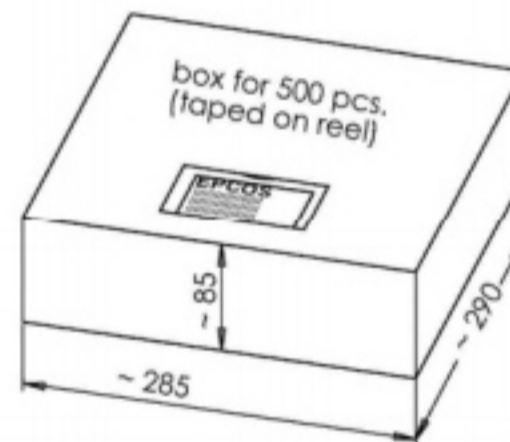
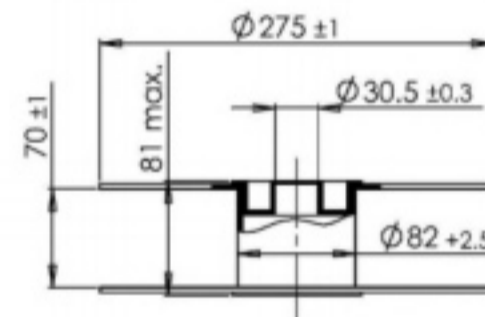
## Ordering codes and packing advices

B88069X4293S102 = 100 pcs. on 5 taped stripes

B88069X4293T502 = 500 pcs. on tape and reel

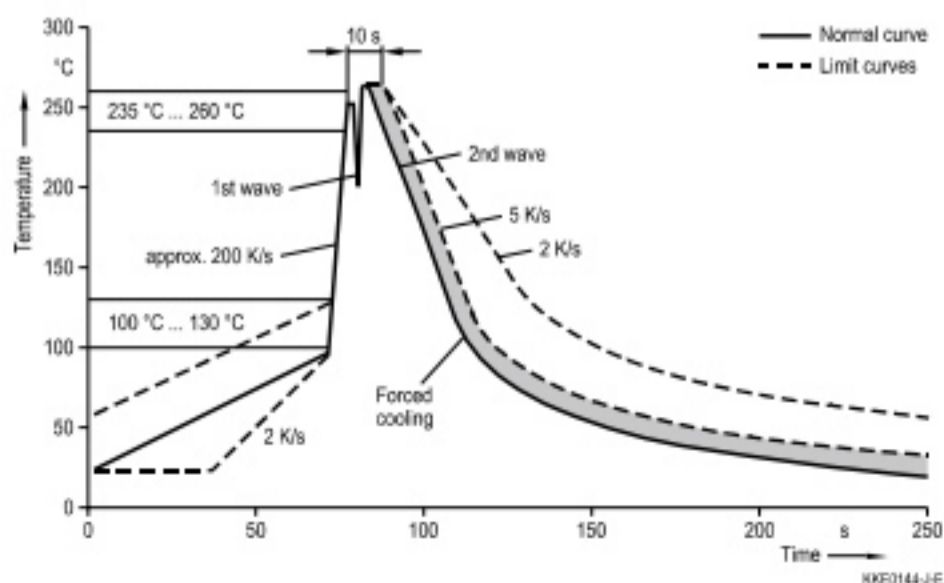


tape acc. to IEC 60286-1



## Soldering parameter

### Wave soldering



| Wave profile features   | Pb-free assembly          |
|-------------------------|---------------------------|
| Solder                  | Sn 95.5 / Ag 3.8 / Cu 0.7 |
| Solder bath temperature | 263 (±3) °C               |
| Dwell time              | < 3 s                     |

Soldering profile applied to a single soldering process.