

# ANTREX Electronics

## Electronic Components Sourcing Information

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### Product Reference Information

|                      |                                 |
|----------------------|---------------------------------|
| <b>Part Number:</b>  | B88069X4301T502                 |
| <b>Manufacturer:</b> | TDK                             |
| <b>Package:</b>      | Tape & Reel (TR), Cut Tape (CT) |
| <b>Availability:</b> | Please confirm with sales       |

**Product Page:**

<https://antrexco.com/product/details/tdk/b88069x4301t502.html>

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### Contact Information

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### Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

**Note:**

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.



## Surge arrester

### 2-electrode arrester

|                       |                        |
|-----------------------|------------------------|
| <b>Series/Type:</b>   | <b>EF1500X</b>         |
| <b>Ordering code:</b> | <b>B88069X4301****</b> |
| Version/Date:         | 2026-04-01             |
| Version:              | 05                     |

## Surge arrester

B88069X4301\*\*\*\*

## 2-electrode arrester

EF1500X

### Features

- High follow current capability
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

### Applications

- Application with high follow current
- Power supply
- Consumer electronics
- AC power line devices

### Electrical specifications

|                                                                          |                                                                                           |                                                                                       |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| DC spark-over voltage <sup>1) 2)</sup>                                   | 1500                                                                                      | V                                                                                     |
| Tolerance                                                                | ±20                                                                                       | %                                                                                     |
| Min.                                                                     | 1200                                                                                      | V                                                                                     |
| Max.                                                                     | 1800                                                                                      | V                                                                                     |
| Impulse spark-over voltage                                               |                                                                                           |                                                                                       |
| at 100 V/μs - for 99% of measured values                                 | < 1800                                                                                    | V                                                                                     |
| - typical values of distribution                                         | < 1700                                                                                    | V                                                                                     |
| at 1 kV/μs - for 99% of measured values                                  | < 2000                                                                                    | V                                                                                     |
| - typical values of distribution                                         | < 1800                                                                                    | V                                                                                     |
| Service life                                                             |                                                                                           |                                                                                       |
| 10 operations 50 Hz, 1 s                                                 | 5                                                                                         | A                                                                                     |
| 1 operation 50 Hz, 0.18 s (9 cycles)                                     | 35                                                                                        | A                                                                                     |
| 10 operations 8/20 μs                                                    | 10                                                                                        | kA                                                                                    |
| 1 operation 8/20 μs                                                      | 10                                                                                        | kA                                                                                    |
| Max. follow current during one voltage half cycle at 50 Hz <sup>3)</sup> | 200                                                                                       | A                                                                                     |
| Insulation resistance at 100 V <sub>DC</sub>                             | > 10                                                                                      | GΩ                                                                                    |
| Capacitance at 1 MHz                                                     | < 1.5                                                                                     | pF                                                                                    |
| Arc voltage at 1 A                                                       | ~ 30                                                                                      | V                                                                                     |
| Glow to arc transition current                                           | < 0.3                                                                                     | A                                                                                     |
| Glow voltage                                                             | ~ 90                                                                                      | V                                                                                     |
| Weight                                                                   | ~ 1.5                                                                                     | g                                                                                     |
| Operation and storage temperature                                        | -40 ... +125                                                                              | °C                                                                                    |
| Climatic category (IEC 60068-1)                                          | 40/125/21                                                                                 |                                                                                       |
| Marking, red positive                                                    | <b>TDK EF 1500 YY</b><br>EF - Series<br>1500 - Nominal voltage<br>YY - Year of production |                                                                                       |
| Certifications                                                           | UL 1449 (E319264)                                                                         |  |

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

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

<sup>3)</sup> Follow current has to be limited by an appropriate varistor in series.

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

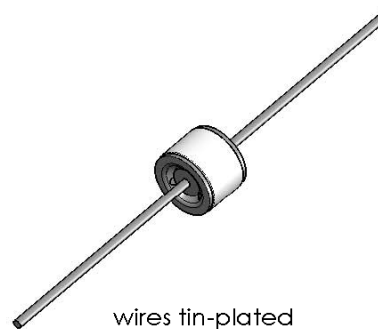
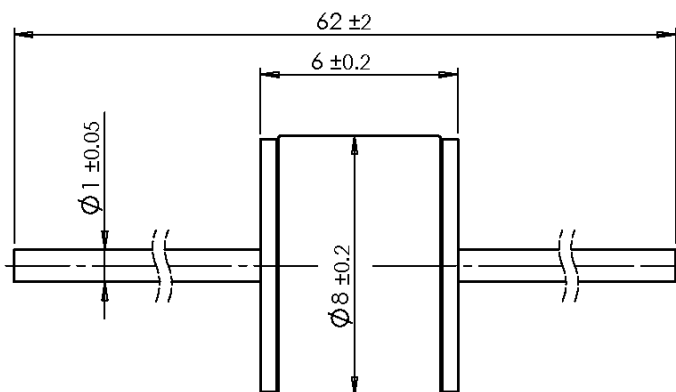
Surge arrester

B88069X4301\*\*\*\*

2-electrode arrester

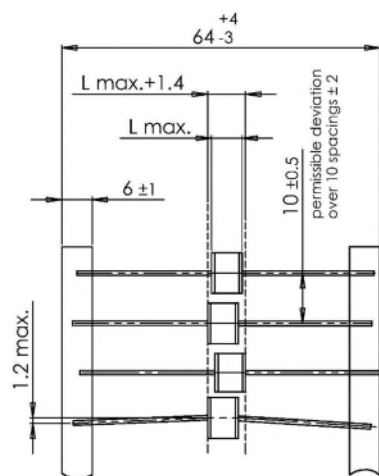
EF1500X

### Dimensional drawing in mm

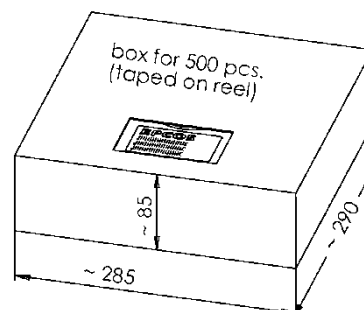
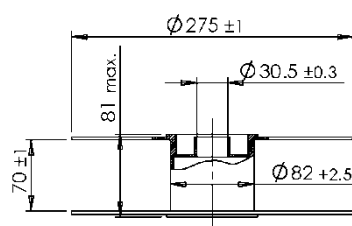
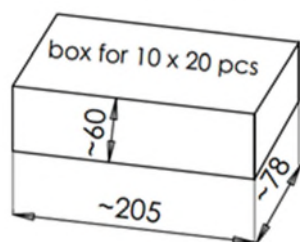


### Ordering codes and packing advices

B88069X4301S202 = 200 pcs. on 10 taped stripes B88069X4301T502 = 500 pcs. on tape and reel

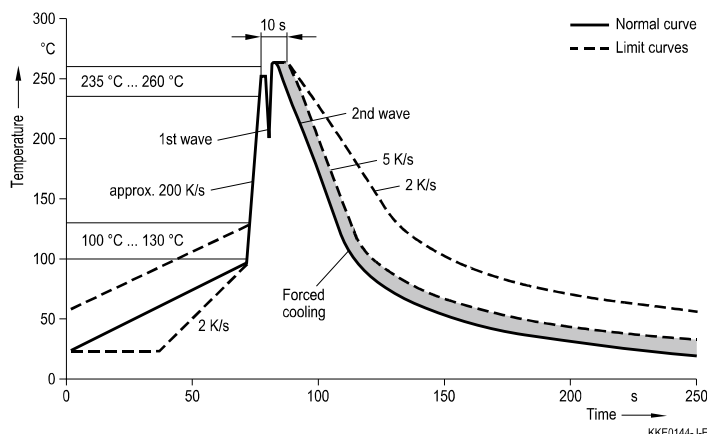


tape acc. to IEC 60286-1



## 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                     |

## 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.
- The follow current must be limited (see page 2) so that the arrester can be properly extinguished when the surge has decayed. The arrester might otherwise heat up and ignite adjacent components.
- 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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## Important notes

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Release 2024-02