

# ANTREX Electronics

Electronic Components Sourcing Information

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## Product Reference Information

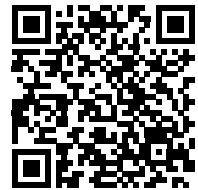
**Part Number:** B88069X4131T502  
**Manufacturer:** TDK  
**Package:** Tape & Reel (TR)  
**Availability:** Please confirm with sales

### Product Page:

<https://antrexco.com/product/details/tdk/b88069x4131t502.html>

### Request a Quote:

[Submit RFQ for this part](#)



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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.

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## Surge arrester

### 2-electrode arrester

|                       |                        |
|-----------------------|------------------------|
| <b>Series/Type:</b>   | <b>EF270X</b>          |
| <b>Ordering code:</b> | <b>B88069X4131****</b> |
| <b>Date:</b>          | <b>2026-04-01</b>      |
| <b>Version:</b>       | <b>08</b>              |

## Surge arrester

B88069X4131\*\*\*\*

## 2-electrode arrester

EF270X

### Features

- Standard size
- 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

### Electrical specifications

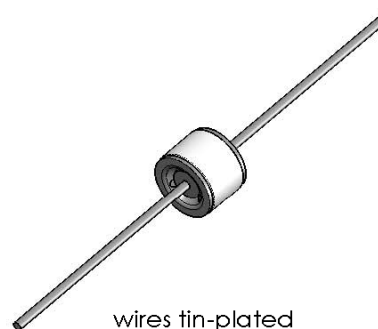
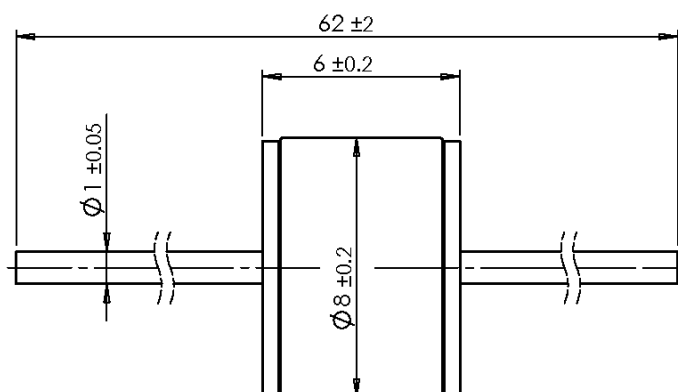
|                                                            |                                                                                         |                                                                                       |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| DC spark-over voltage <sup>1) 2)</sup>                     | 270                                                                                     | V                                                                                     |
| Tolerance                                                  | -15 ... +25                                                                             | %                                                                                     |
| Min.                                                       | 230                                                                                     | V                                                                                     |
| Max.                                                       | 338                                                                                     | V                                                                                     |
| Impulse spark-over voltage                                 |                                                                                         |                                                                                       |
| at 100 V/μs - for 99% of measured values                   | < 500                                                                                   | 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 50 Hz, 1 s                                   | 5                                                                                       | A                                                                                     |
| 1 operation 50 Hz, 0.18 s (9 cycles)                       | 65                                                                                      | A                                                                                     |
| 10 operations 8/20 μs                                      | 5                                                                                       | kA                                                                                    |
| 1 operation 8/20 μs                                        | 10                                                                                      | kA                                                                                    |
| Max. follow current during one voltage half cycle at 50 Hz | 200                                                                                     | A                                                                                     |
| Insulation resistance at 100 V <sub>DC</sub>               | > 10                                                                                    | GΩ                                                                                    |
| Capacitance at 1 MHz                                       | < 1.5                                                                                   | pF                                                                                    |
| Arc voltage at 1 A                                         | ~ 16                                                                                    | V                                                                                     |
| Glow to arc transition current                             | < 0.3                                                                                   | A                                                                                     |
| Glow voltage                                               | ~ 140                                                                                   | 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 270 YY</b><br>EF - Series<br>270 - Nominal voltage<br>YY - Year of production |                                                                                       |
| Certification                                              | UL 1449 (E319264)                                                                       |  |

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

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

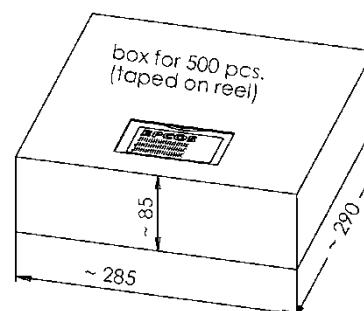
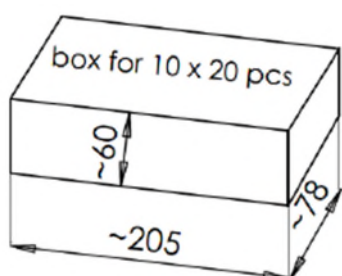
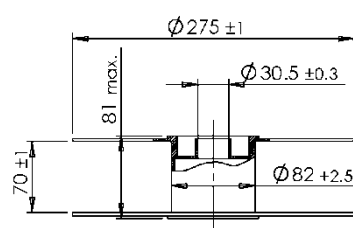
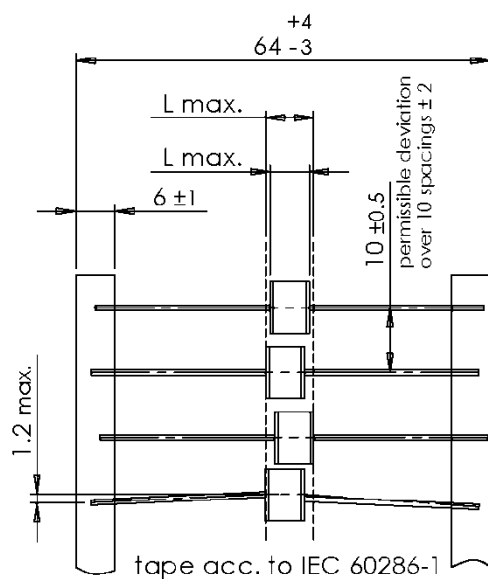
Terms in accordance with ITU-T Rec. K.12 and IEC 61643-311.

# Dimensional drawing in mm



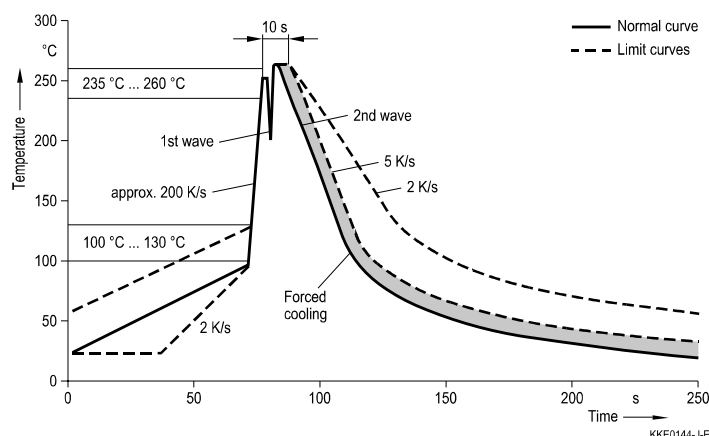
## Ordering codes and packing advices

B88069X4131S202 = 200 pcs. on 10 taped stripes B88069X4131T502 = 500 pcs. on tape and reel



## 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.

## 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 values on 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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2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified**. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
3. **The warnings, cautions and product-specific notes must be observed.**
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## Important notes

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