

# Surge protection device - TTC-6-TVSD-C-12DC-UT-I - 2906829

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Fine surge protection with integrated status indicator for a signal wire with grounded reference potential.

## Your advantages

- ✓ Space-saving and inexpensive with a narrow overall width of just 6.2 mm
- ✓ Signaling without additional auxiliary power, thanks to the mechanical status indicator
- ✓ Optional remote signaling module monitors up to 40 items, without additional wiring
- ✓ Safe behavior in the event of overload, thanks to the integrated disconnect device
- ✓ Fine surge protection by means of suppressor diode



## Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 1 pc  |
| GTIN         | <br>4 055626 126234 |
| GTIN         | 4055626126234   |

## Technical data

### Dimensions

|        |                                 |
|--------|---------------------------------|
| Height | 92 mm                           |
| Width  | 6.2 mm                          |
| Depth  | 69.5 mm (incl. DIN rail 7.5 mm) |

### Ambient conditions

|   |  |
|---|--|
| Ambient temperature (operation)         | -40 °C ... 85 °C                       |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C                       |
| Permissible humidity (operation)        | 5 % ... 95 %                           |
| Altitude                                | ≤ 4000 m (amsl (above mean sea level)) |
| Degree of protection                    | IP20 (with end cover)                  |

### General

|                  |     |
|------------------|-----|
| Housing material | PBT |
|------------------|-----|

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## Technical data

### General

|  |                            |
|--|----------------------------|
| Flammability rating according to UL 94 | V-0                        |
| Color                                  | traffic grey A RAL 7042    |
| Mounting type                          | DIN rail: 35 mm            |
| Type                                   | DIN rail module, one-piece |
| Direction of action                    | Line-Earth Ground          |

### Protective circuit

|   |   |
|---|---|
| IEC test classification   | C1  |
|   | C3  |
| Nominal voltage $U_N$   | 12 V DC   |
| Maximum continuous voltage $U_C$                                  | 15 V DC   |
|   | 10 V AC   |
| Rated current   | 10 A (60 °C)  |
| Operating effective current $I_C$ at $U_C$                        | $\leq 5 \mu\text{A}$                                  |
| Residual current $I_{PE}$   | $\leq 5 \mu\text{A}$                                  |
| Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-earth) | 300 A   |
| Voltage protection level $U_p$ (line-earth)                       | $\leq 25 \text{ V}$ (C1 - 0,6 kV / 300 A)             |
|   | $\leq 22 \text{ V}$ (C3 - 25 A)                       |
|   | $\leq 25 \text{ V}$ (C3 - 60 A)                       |
| Response time $t_A$ (line-earth)                                  | $\leq 1 \text{ ns}$                                   |
| Input attenuation aE, asym.                                       | typ. 0.3 dB ( $\leq 340 \text{ kHz}$ / 150 $\Omega$ ) |
| Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system      | typ. 1.1 MHz  |
| Capacity (line-earth)   | 2 nF  |
| Resistance per path   | $\leq 100 \text{ m}\Omega$                            |
| Surge protection fault message                                    | optical   |
| Impulse durability (line-earth)                                   | C1 - 0.6 kV/300 A                                     |
|   | C3 - 60 A   |

### Connection data

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Screw thread                     | M3  |
| Tightening torque                | 0.5 Nm ... 0.6 Nm                           |
| Stripping length                 | 8 mm  |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section AWG      | 24 ... 12                                   |

### Standards and Regulations

|                          |  |
|--------------------------|--|
| Standards/specifications | IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012 |
|                          | EN 61643-21 2001 + A1:2009 + A2:2013                               |

### Environmental Product Compliance

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

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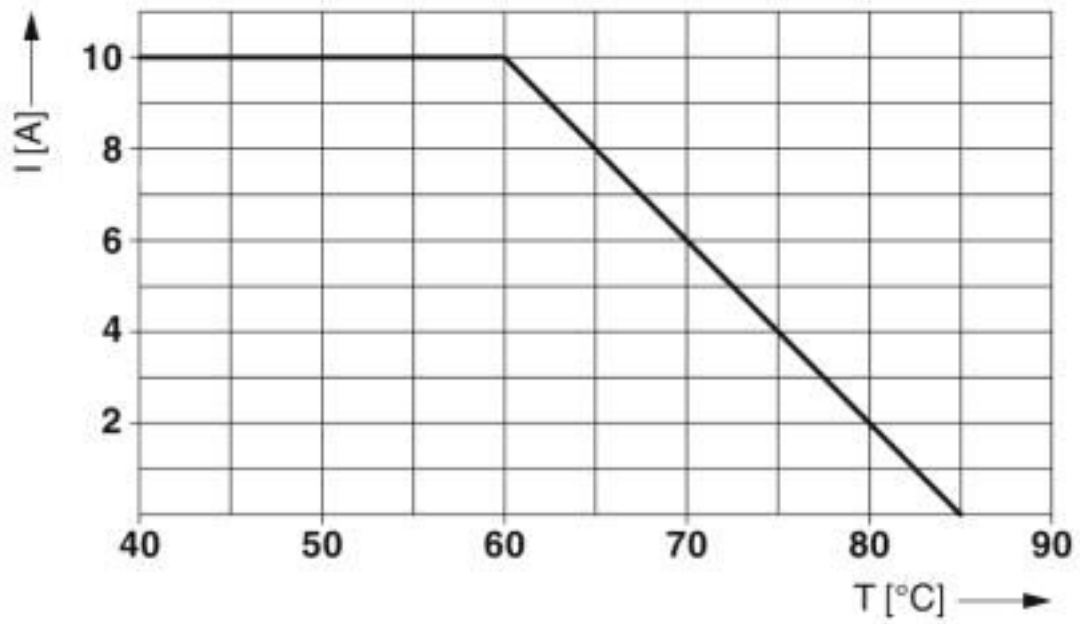
## Technical data

### Environmental Product Compliance

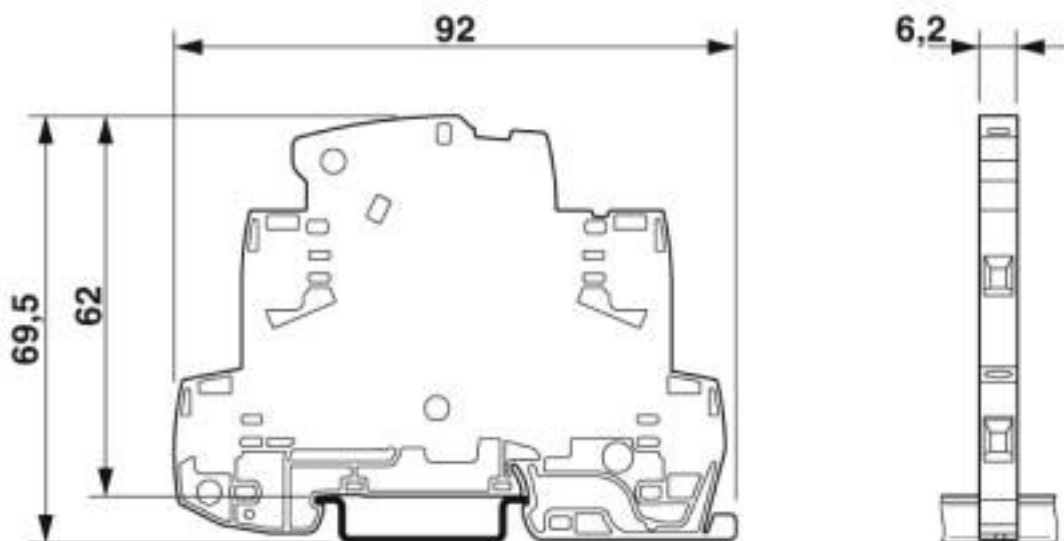
|            |   |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

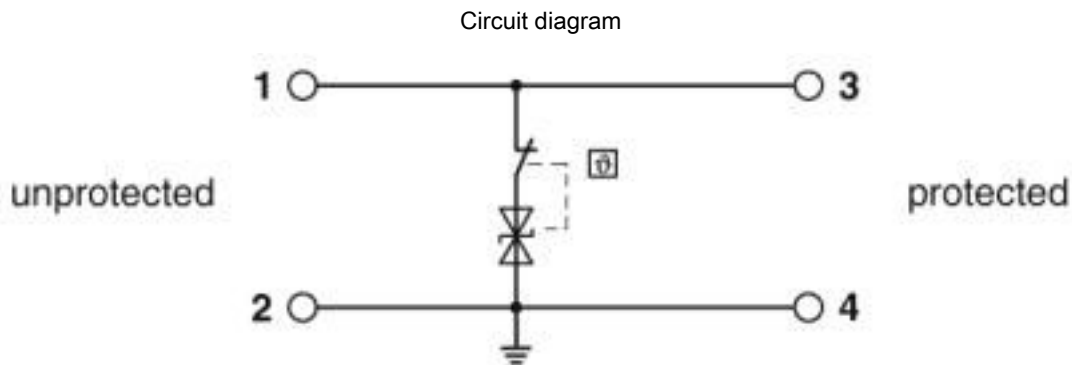
Diagram



Dimensional drawing



## Surge protection device - TTC-6-TVSD-C-12DC-UT-I - 2906829



### Classifications

#### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27130807 |
| eCl@ss 4.0    | 27140201 |
| eCl@ss 4.1    | 27130801 |
| eCl@ss 5.0    | 27130801 |
| eCl@ss 5.1    | 27130801 |
| eCl@ss 6.0    | 27130800 |
| eCl@ss 7.0    | 27130807 |
| eCl@ss 8.0    | 27130807 |
| eCl@ss 9.0    | 27130807 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000943 |
| ETIM 3.0 | EC000943 |
| ETIM 4.0 | EC000943 |
| ETIM 5.0 | EC000943 |
| ETIM 6.0 | EC000943 |
| ETIM 7.0 | EC000943 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30212010 |
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11     | 39121610 |
| UNSPSC 12.01  | 39121610 |
| UNSPSC 13.2   | 39121620 |
| UNSPSC 18.0   | 39121620 |
| UNSPSC 19.0   | 39121620 |
| UNSPSC 20.0   | 39121620 |
| UNSPSC 21.0   | 39121620 |

# Surge protection device - TTC-6-TVSD-C-12DC-UT-I - 2906829

## Approvals

### Approvals

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#### Approvals






DNV GL / CSA / UL Listed / CSAus / cCSAus

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#### Ex Approvals

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### Approval details

|           |   |   |               |
|-----------|---|---|---------------|
| DNV GL    |    | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>   | TAE000027G    |
| CSA       |   | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>               | 70136717      |
| UL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 138168 |
| CSAus     |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>               | 70136717      |
| cCSAus    |  |   |               |

## Accessories

### Accessories

#### End block

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

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### Accessories

#### Labeled terminal marker

Zack Marker strip, flat - ZBF 6 CUS - 0825027



Zack Marker strip, flat, Strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

Zack Marker strip, flat - ZBF 6,QR:FORTL.ZAHLEN - 0808765



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

#### Marker pen

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

#### Terminal marking

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

Zack Marker strip, flat - ZBF 6/WH-100:UNBEDRUCKT - 0808736



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

#### Additional products

## Surge protection device - TTC-6-TVSD-C-12DC-UT-I - 2906829

### Accessories

Remote signaling set - TTC-6-FMRS-UT - 2907810



Module set for the optical monitoring and floating remote signaling of neighboring surge protective devices of the TERMITRAB complete product range.

Cover - TTC-6-LCP - 2908729



End cover for terminating a row of TERMITRAB complete TTC-6... terminal blocks

Shield connection - SSA 3-6 - 2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm<sup>2</sup>, color: black

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PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

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