

## Surge protection device - TTC-6-TVSD-C-48DC-PT-I - 2906849

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

### Your advantages

- ✓ Space-saving installation due to the narrow overall width of 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
- ✓ Quick and tool-free installation of surge protective devices, thanks to Push-in connection technology
- ✓ 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 137056 |
| GTIN                                 | 4055626137056                                                                                           |
| Weight per Piece (excluding packing) | 22.700 g                                                                                                |
| Custom tariff number                 | 85363010                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### 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 |

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## Technical data

### Ambient conditions

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Permissible humidity (operation) | 5 % ... 95 %                           |
| Altitude                         | ≤ 4000 m (amsl (above mean sea level)) |
| Degree of protection             | IP20 (with end cover)                  |

### General

|                                        |                            |
|----------------------------------------|----------------------------|
| Housing material                       | PBT                        |
| 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                                      | C3                            |
| Nominal voltage $U_N$                                        | 48 V DC                       |
| Maximum continuous voltage $U_C$                             | 53 V DC                       |
|                                                              | 37 V AC                       |
| Rated current                                                | 10 A (60 °C)                  |
| Operating effective current $I_C$ at $U_C$                   | ≤ 5 μA                        |
| Residual current $I_{PE}$                                    | ≤ 5 μA                        |
| Nominal discharge current $I_n$ (8/20) μs (line-earth)       | 90 A                          |
| Voltage protection level $U_p$ (line-earth)                  | ≤ 80 V (C3 - 18 A)            |
| Response time $t_A$ (line-earth)                             | ≤ 1 ns                        |
| Input attenuation aE, asym.                                  | typ. 0.3 dB (≤ 1 MHz / 150 Ω) |
| Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system | typ. 3.5 MHz                  |
| Capacity (line-earth)                                        | 1 nF                          |
| Resistance per path                                          | ≤ 100 mΩ                      |
| Surge protection fault message                               | optical                       |
| Impulse durability (line-earth)                              | C3 - 18 A                     |

### Connection data

|                                  |                     |
|----------------------------------|---------------------|
| Connection method                | Push-in connection  |
| Stripping length                 | 8 mm                |
| Conductor cross section flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross section solid    | 0.2 mm² ... 4 mm²   |
| 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

|            |                                          |
|------------|------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 |
|------------|------------------------------------------|

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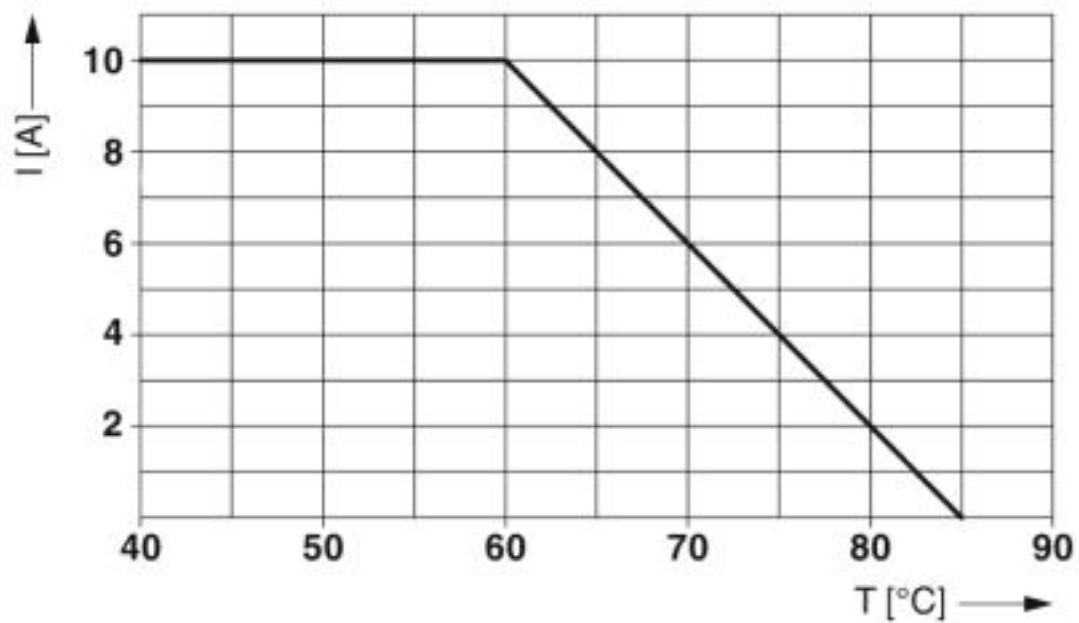
### Technical data

#### Environmental Product Compliance

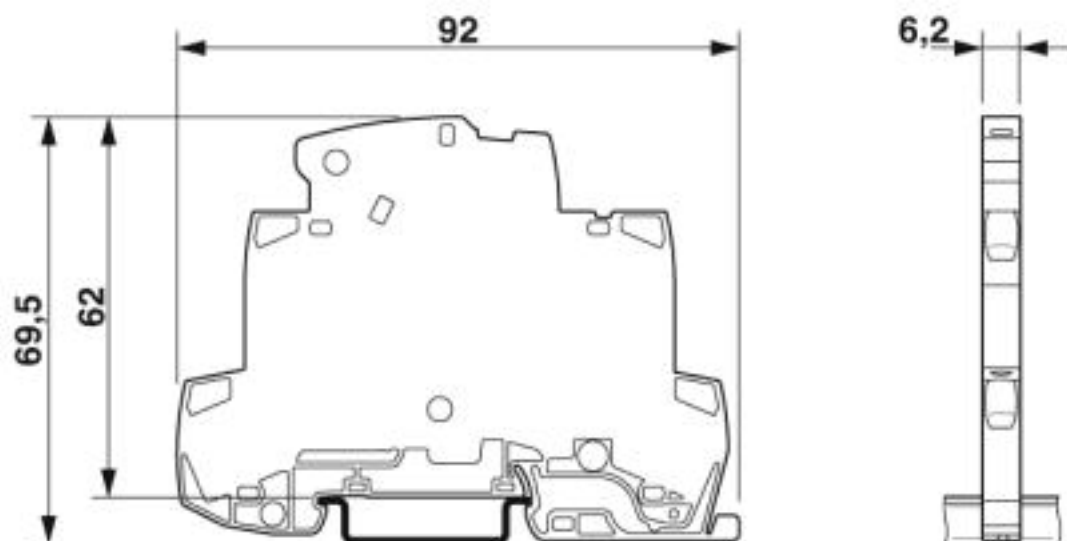
|  |                                                                                                        |
|--|--------------------------------------------------------------------------------------------------------|
|  | For details about hazardous substances go to tab "Downloads",<br>Category "Manufacturer's declaration" |
|--|--------------------------------------------------------------------------------------------------------|

### Drawings

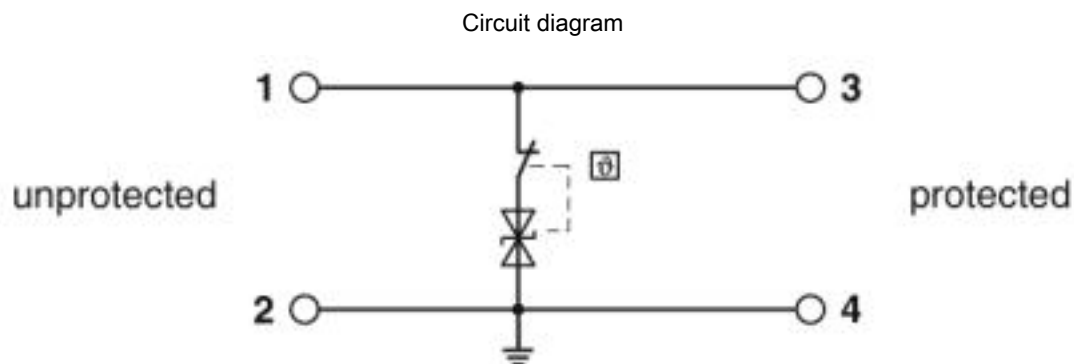
Diagram



Dimensional drawing



## Surge protection device - TTC-6-TVSD-C-48DC-PT-I - 2906849



### Classifications

eCl@ss

|            |          |
|------------|----------|
| 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 |

### Approvals

Approvals

## Surge protection device - TTC-6-TVSD-C-48DC-PT-I - 2906849

### 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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#### Labeled terminal marker

## Surge protection device - TTC-6-TVSD-C-48DC-PT-I - 2906849

### Accessories

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-48DC-PT-I - 2906849

### Accessories

Remote signaling set - TTC-6-FMRS-PT - 2907811



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

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Cover - TTC-6-LCP - 2908729



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

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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

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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