

Surge protection device - TTC-6P-1X2-F-12DC-PT-I - 2908198

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Surge protection, consisting of protective plug and base element, with integrated status indicator for a 2-wire floating signal circuit. Indirect grounding via gas-filled surge arrester.

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
- ✓ The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs
- ✓ Error-free replacement of protective plugs, thanks to coding
- ✓ Safe behavior in the event of overload, thanks to the integrated disconnect device
- ✓ Grounded or insulated shield grounding, thanks to the third terminal point on the surge protective device
- ✓ Simple testing and documentation with CHECKMASTER 2, thanks to pluggable protective modules



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 282824 |
| GTIN | 4055626282824 |
| Weight per Piece (excluding packing) | 37.040 g |
| Custom tariff number | 85363010 |
| Country of origin | Germany |
| Note | Made to Order (non-returnable) |

Technical data

Dimensions

| | |
|--------|----------------|
| Height | 105.8 mm |
| Width | 6.2 mm +0.1 mm |

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Technical data

Dimensions

| | |
|-------|--------------------------------|
| Depth | 100 mm (incl. DIN rail 7.5 mm) |
|-------|--------------------------------|

Ambient conditions

| | |
|---|--|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | ≤ 4000 m (amsl (above mean sea level)) |
| Degree of protection | IP20 |

General

| | |
|--|--|
| Housing material | PBT |
| Flammability rating according to UL 94 | V-0 |
| Color | traffic grey A RAL 7042 light grey RAL 7035 |
| Mounting type | DIN rail: TH 35 - 7.5 mm |
| Type | DIN rail module, two-section, divisible |
| Direction of action | Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground |

Protective circuit

| | |
|---|---|
| IEC test classification | C1 C2 C3 D1 |
| Nominal voltage U_N | 12 V DC |
| Maximum continuous voltage U_C | 15 V DC 10 V AC |
| Rated current | 600 mA (56 °C) |
| Operating effective current I_C at U_C | ≤ 100 µA |
| Residual current I_{PE} | ≤ 1 µA |
| Nominal discharge current I_n (8/20) µs (line-line) | 5 kA |
| Nominal discharge current I_n (8/20) µs (line-earth) | 5 kA |
| Nominal discharge current I_n (8/20) µs (line-signal ground) | 5 kA |
| Pulse discharge current I_{imp} (10/350) µs (line-line) | 0.5 kA |
| Pulse discharge current I_{imp} (10/350) µs (line-earth) | 0.5 kA |
| Pulse discharge current I_{imp} (10/350) µs (line-signalground) | 0.5 kA |
| Total discharge current I_{total} (8/20) µs | 10 kA |
| Voltage protection level U_p (line-line) | ≤ 220 V (C1 - 1 kV/500 A) ≤ 350 V (C2 - 10 kV / 5 kA) ≤ 25 V (C3 - 25 A) ≤ 35 V (C3 - 100 A) |
| Voltage protection level U_p (line-earth) | ≤ 900 V (C1 - 1 kV/500 A) ≤ 1.05 kV (C2 - 10 kV / 5 kA) |

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Technical data

Protective circuit

| | |
|---|-------------------------------|
| | ≤ 1.3 kV (C3 - 25 A) |
| | ≤ 1.4 kV (C3 - 100 A) |
| Voltage protection level U_p (line-signalground) | ≤ 750 V (C1 - 1 kV/500 A) |
| | ≤ 750 V (C2 - 10 kV / 5 kA) |
| | ≤ 700 V (C3 - 25 A) |
| | ≤ 750 V (C3 - 100 A) |
| Voltage protection level U_p static (line-line) | ≤ 30 V (C1 - 1 kV/500 A) |
| | ≤ 85 V (C2 - 10 kV / 5 kA) |
| Voltage protection level U_p static (line-earth) | ≤ 900 V (C1 - 1 kV/500 A) |
| | ≤ 1.05 kV (C2 - 10 kV / 5 kA) |
| Voltage protection level U_p static (line-signalground) | ≤ 750 V (C1 - 1 kV/500 A) |
| | ≤ 750 V (C2 - 10 kV / 5 kA) |
| Response time t_A (line-line) | ≤ 1 ns |
| Response time t_A (line-signalground) | ≤ 100 ns |
| Response time t_A (line-earth) | ≤ 100 ns |
| Input attenuation aE, sym. | typ. 0.3 dB (≤ 130 kHz/150 Ω) |
| Cut-off frequency f_g (3 dB), sym. in 150 Ohm system | typ. 420 kHz |
| Capacity (line-line) | typ. 5.2 nF |
| Resistance per path | 1.65 Ω ±20 % |
| Max. required back-up fuse | 630 mA (FF) |
| Impulse durability (line-line) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C3 - 100 A |
| Impulse durability (line-earth) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C3 - 100 A |
| | D1 - 500 A |
| Impulse durability (line-signalground) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C3 - 100 A |
| | D1 - 500 A |
| Pulse reset time (line-line) | ≤ 700 ms |
| Pulse reset time (line-earth) | ≤ 30 ms |
| Pulse reset time (line-signalground) | ≤ 1500 ms |

Additional technical data

| | |
|---|------------|
| Max. total discharge current $I_{total\ max}$ (8/20) μs | 20 kA (1x) |
|---|------------|

Connection data

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|-------------------|--------------------|
| Connection method | Push-in connection |
| Stripping length | 8 mm |

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Technical data

Connection data

| | |
|----------------------------------|---|
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section solid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG | 24 ... 12 |

Standards and Regulations

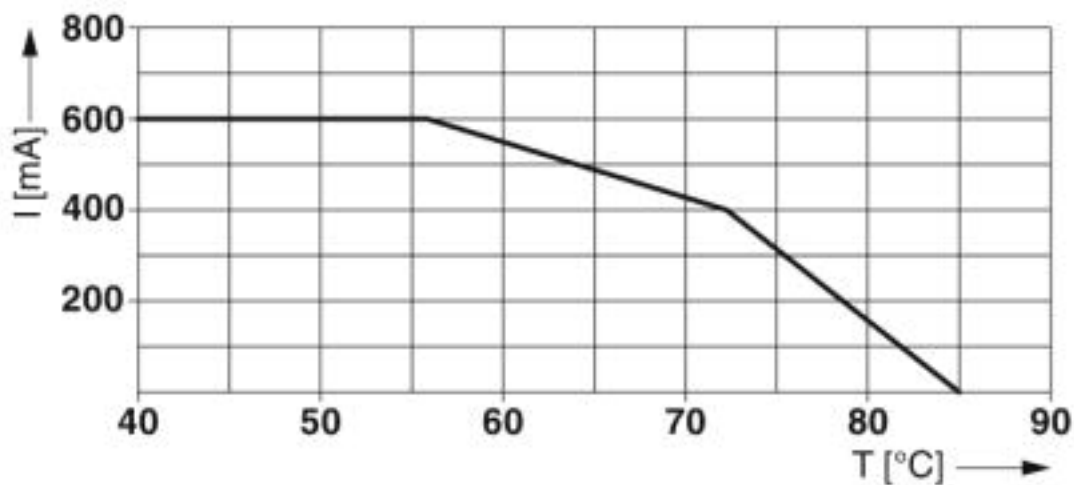
| | |
|--------------------------|--|
| Standards/specifications | IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012 |
| | EN 61643-21 2001 + A1:2009 + A2:2013 |

Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

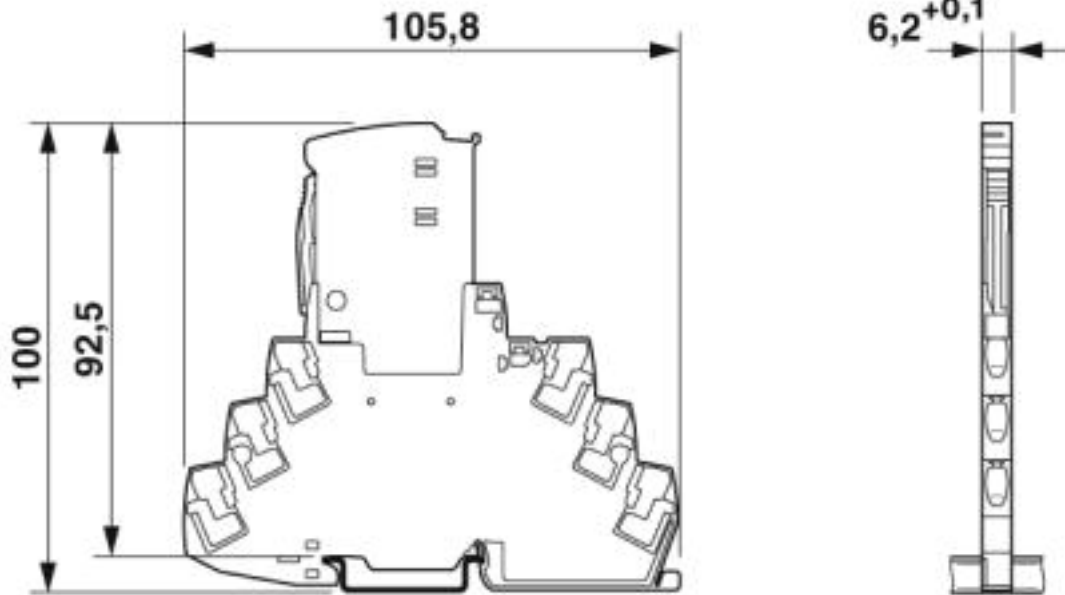
Drawings

Diagram

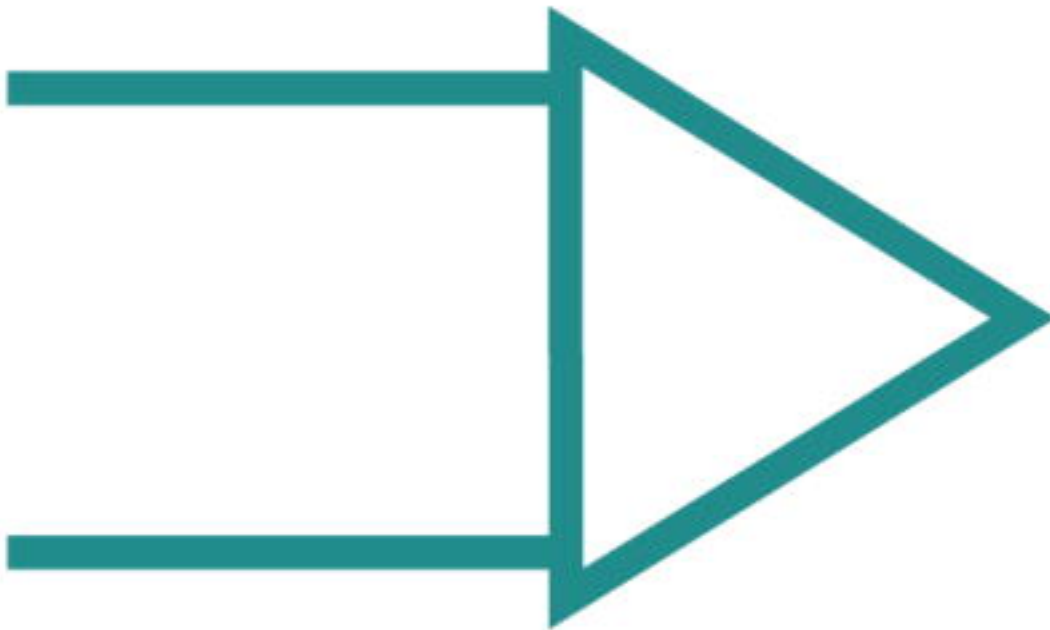


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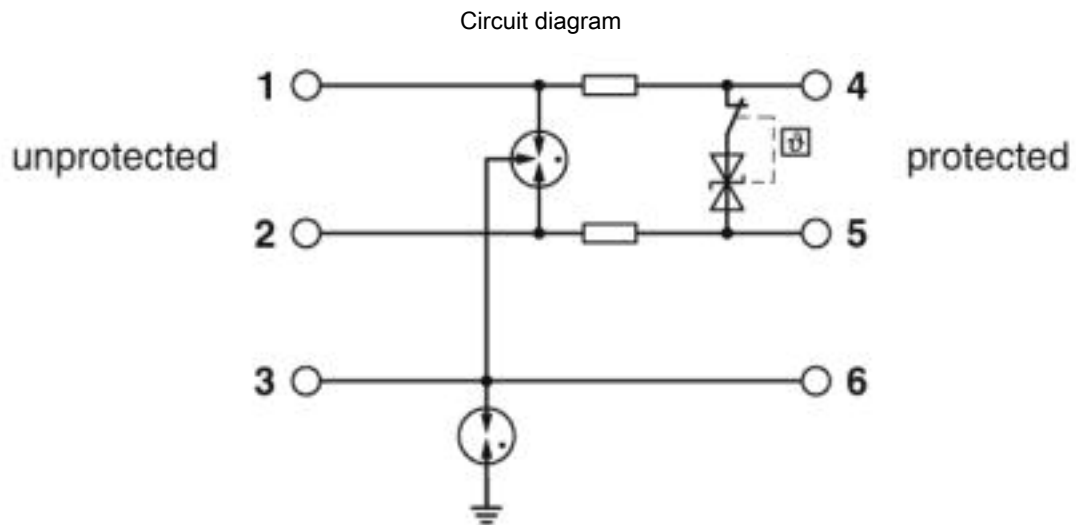
Dimensional drawing



Pictogram



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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 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 |

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Approvals

Approvals

Approvals

DNV GL / CSA / UL Listed / CSAus / cCSAus

Ex Approvals

Approval details

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

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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.

Shield connection - SSA 3-6 - 2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

Spare parts

Surge protection plug - TTC-6P-1X2-12DC-I-P - 2907839



Surge protection plug with integrated status indicator on the module for a 2-wire floating signal circuit. Nominal voltage: 12 V DC