

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Surge protection, consisting of protective plug and base element, with integrated status indicator for two signal wires with common reference potential, e.g., Digital IN/OUT.

Your advantages

- Space-saving and cost-saving with a narrow overall width of just 6 mm
- Continuous monitoring of protective devices, plus mechanical status indicator with optional remote signaling
- Finding the right product for all possible requirements in MCR applications is easy, thanks to the complete range of products with customized features
- Easy testing and documentation with CHECKMASTER 2 with pluggable protective modules
- The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2906816 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL23 |
| Product key | CL2162 |
| Catalog page | Page 128 (C-4-2019) |
| GTIN | 4055626135793 |
| Weight per piece (including packing) | 41.371 g |
| Weight per piece (excluding packing) | 35.19 g |
| Customs tariff number | 85363010 |
| Country of origin | DE |

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Technical data

Product properties

| | |
|-------------------------|---|
| IEC test classification | C1 |
| | C2 |
| | C3 |
| | D1 |
| Type | DIN rail module, two-section, divisible |
| Product type | Surge protection for MCR technology |
| Product family | TERMITRAB complete |

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 2 |

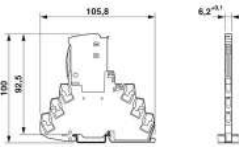
Electrical properties

| | |
|-----------------------|---------|
| Nominal voltage U_N | 24 V DC |
|-----------------------|---------|

Connection data

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Conductor cross section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross section rigid | 0.2 mm ² ... 4 mm ² |
| Conductor cross section AWG | 24 ... 12 |

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 6.2 mm +0.1 mm |
| Height | 105.8 mm |
| Depth | 100 mm (incl. DIN rail 7.5 mm) |

Material specifications

| | |
|--|-----|
| Flammability rating according to UL 94 | V-0 |
| Insulating material | PBT |
| Housing material | PBT |

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Protective circuit

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

| | |
|---|--|
| Direction of action | Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground |
| Maximum continuous voltage U_C | 30 V DC |
| | 21 V AC |
| Rated current | 600 mA (56 °C) |
| Operating effective current I_C at U_C | $\leq 5 \mu\text{A}$ |
| Residual current I_{PE} | $\leq 10 \mu\text{A}$ |
| Nominal discharge current I_n (8/20) μs (line-ground) | 5 kA |
| Pulse discharge current I_{imp} (10/350) μs (line-earth) | 0.5 kA |
| Total discharge current I_{total} (8/20) μs | 10 kA |
| Voltage protection level U_p (line-earth) | $\leq 140 \text{ V}$ (C1 - 1 kV / 500 A) |
| | $\leq 190 \text{ V}$ (C2 - 10 kV / 5 kA) |
| | $\leq 45 \text{ V}$ (C3 - 25 A) |
| | $\leq 50 \text{ V}$ (C3 - 100 A) |
| Voltage protection level U_p static (line-earth) | $\leq 55 \text{ V}$ (C1 - 1 kV / 500 A) |
| | $\leq 120 \text{ V}$ (C2 - 10 kV / 5 kA) |
| Response time t_A (line-earth) | $\leq 1 \text{ ns}$ |
| Input attenuation aE, asym. | typ. 0.3 dB ($\leq 270 \text{ kHz}/150 \Omega$) |
| Cut-off frequency f_g (3 dB), asym. (PE) in 150 Ω system | typ. 960 kHz |
| Capacity (Core-Earth) | typ. 2.2 nF |
| Resistance per path | 1.65 $\Omega \pm 20 \%$ |
| Surge protection fault message | optical |
| Max. required back-up fuse | 630 mA (FF) |
| Impulse durability (line-earth) | C1 - 1 kV / 500 A |
| | C2 - 10 kV / 5 kA |
| | C3 - 100 A |
| | D1 - 500 A |
| Pulse reset time (line-earth) | $\leq 300 \text{ ms}$ |

Additional technical data

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

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | $\leq 4000 \text{ m}$ (amsl) |
| Permissible humidity (operation) | 5 % ... 95 % |

Standards and regulations

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

EN 61643-21

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

| | |
|--------------------------|--------------------------|
| Standards/specifications | EN 61643-21 |
| Note | 2001 + A1:2009 + A2:2013 |

Mounting

| | |
|---------------|--------------------------|
| Mounting type | DIN rail: TH 35 - 7.5 mm |
|---------------|--------------------------|

TTC-6P-2X1-24DC-PT-I - Surge protection device

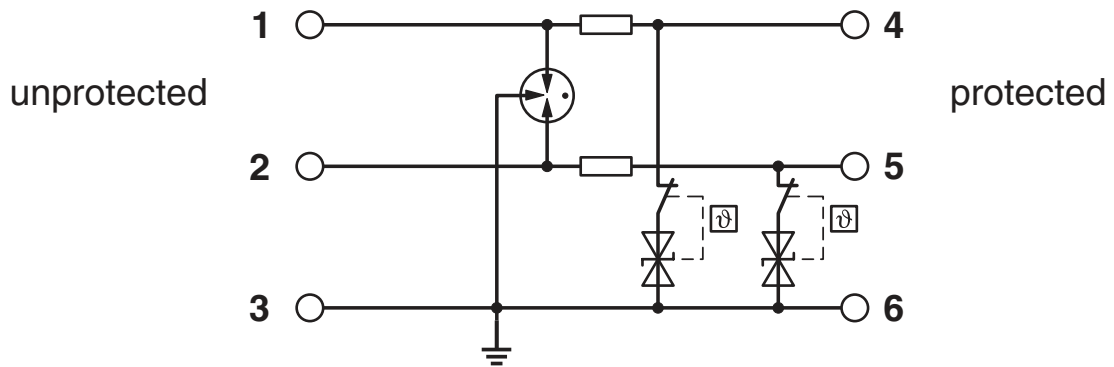


2906816

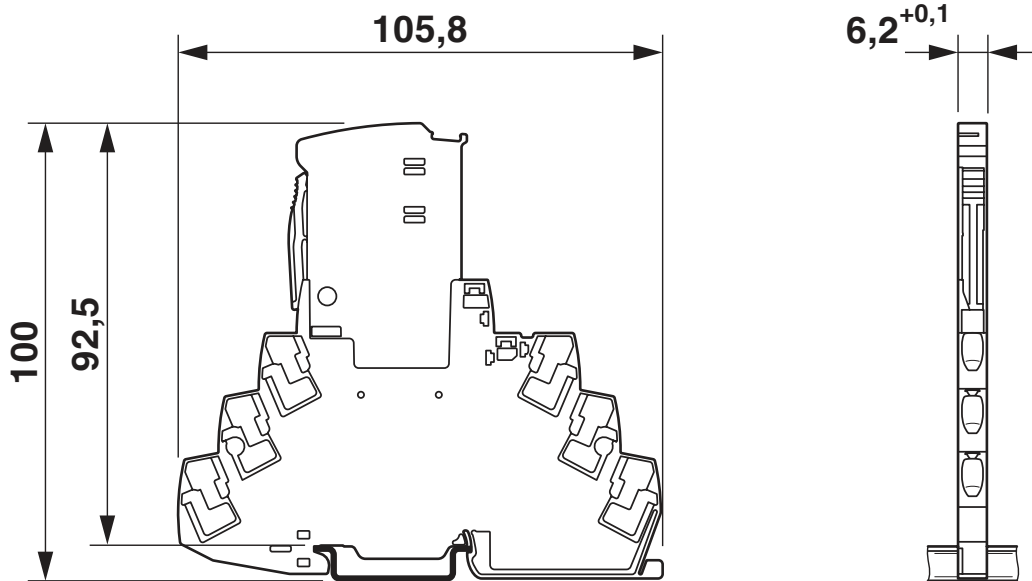
<https://www.phoenixcontact.com/us/products/2906816>

Drawings

Circuit diagram



Dimensional drawing



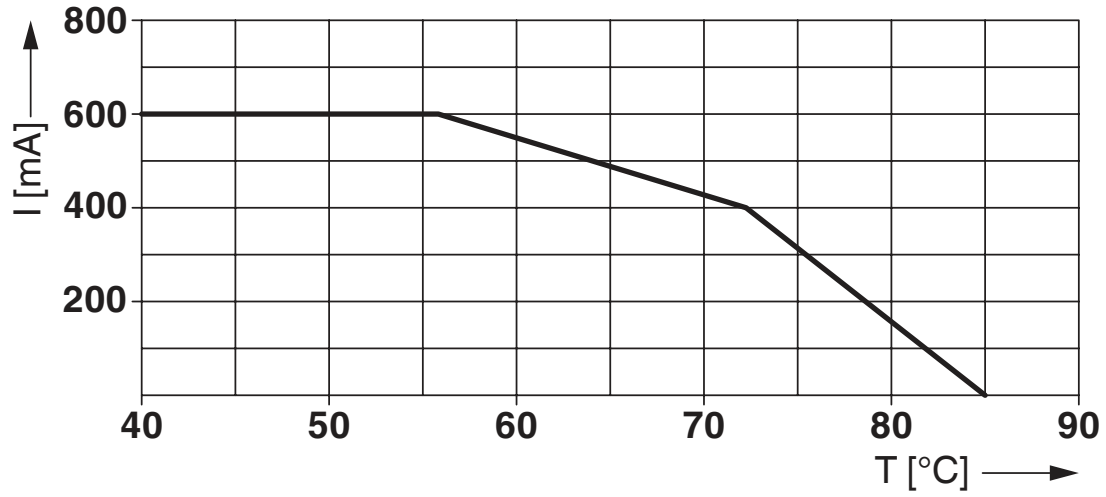
TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Diagram



TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2906816>



CSA

Approval ID: 70136717



DNV GL

Approval ID: TAE000027G



UL Listed

Approval ID: FILE E 138168



CSAus

Approval ID: 70136717

UAE-RoHS

Approval ID: 22-06-16781

cCSAus

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27130807 |
| ECLASS-13.0 | 27171501 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC000943 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Environmental product compliance

| | |
|------------|--|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

Accessories

ZBF 6 CUS - Zack Marker strip, flat

0825027

<https://www.phoenixcontact.com/us/products/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

ZBF 6:UNBEDRUCKT - Zack Marker strip, flat

0808710

<https://www.phoenixcontact.com/us/products/0808710>



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

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

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

0808736

<https://www.phoenixcontact.com/us/products/0808736>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 1000

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

0808765

<https://www.phoenixcontact.com/us/products/0808765>



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

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

CLIPFIX 35-5 - End clamp

3022276

<https://www.phoenixcontact.com/us/products/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

TTC-6-FMRS-PT - Remote signaling set

2907811

<https://www.phoenixcontact.com/us/products/2907811>



Module set for the optical monitoring and floating remote signaling of adjacent surge protective devices in the TERMITRAB complete or CLIXTRAB product family. Suitable for directly grounded DIN rails.

TTC-6P-2X1-24DC-PT-I - Surge protection device



2906816

<https://www.phoenixcontact.com/us/products/2906816>

SSA 3-6 - Shield connection

2839295

<https://www.phoenixcontact.com/us/products/2839295>

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



SSA 5-10 - Shield connection

2839512

<https://www.phoenixcontact.com/us/products/2839512>

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



TTC-6P-2X1-24DC-PT-I - Surge protection device

2906816

<https://www.phoenixcontact.com/us/products/2906816>



X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/us/products/0811228>



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

TTC-6P-2X1-24DC-I-P - Surge protection plug

2907843

<https://www.phoenixcontact.com/us/products/2907843>



Surge protection plug with integrated status indicator on the module for two signal wires with a common reference potential. Nominal voltage: 24 V DC

Phoenix Contact 2023 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com