

TTC-6P-T3-24DC-PT-I - Type 3 surge protection device



1027586

<https://www.phoenixcontact.com/us/products/1027586>

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Type 3 surge protection, consisting of protective plug and base element, with integrated status indicator for 24 V DC power supplies

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 | 1027586 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL01 |
| Product key | CL14D2 |
| GTIN | 4055626522333 |
| Weight per piece (including packing) | 49 g |
| Weight per piece (excluding packing) | 36.62 g |
| Customs tariff number | 85363030 |
| Country of origin | DE |

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Technical data

Notes

General

| Note | |
|------|----------------------------------|
| | CBM: |
| | 2905743 CBM E4 24DC/0.5-10A NO-R |
| | 2905744 CBM E8 24DC/0.5-10A NO-R |
| | CBMC: |
| | 2906032 CBMC E4 24DC/1-10A NO |
| | 2908716 CBMC E4 24DC/1-10A NO-C |
| | 2910411 CBMC E4 24DC/1-10A IOL |
| | PTCB: |
| | 2908262 PTCB E1 24DC/1-8A NO |
| | CB E1: |
| | 2800907 CB E1 24DC/10A NO P |
| | 2800914 CB E1 24DC/10A S-R P |
| | 2800928 CB E1 24DC/10A S-C P |
| | 2905805 CB E1 24DC/10A SI-R P |
| | 2905812 CB E1 24DC/10A SI-C P |

Product properties

| | |
|--------------------------------|---|
| Product type | Device protection |
| Product family | TERMITRAB complete |
| IEC power supply system | DC |
| Type | DIN rail module, two-section, divisible |
| Number of positions | 2 |
| Surge protection fault message | optical |

Insulation characteristics

| | |
|-------------------------|-----|
| Overvoltage category | III |
| Pollution degree | 2 |
| IEC test classification | III |
| | T3 |
| EN type | T3 |
| Number of ports | One |

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

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

Material specifications

| | |
|--|-----------------------|
| Color (Base element) | gray (RAL 7042) |
| Color (Male connector) | light gray (RAL 7035) |
| Flammability rating according to UL 94 | V-0 |
| CTI value of material | 600 |
| Insulating material | PBT |
| Housing material | PBT |

Protective circuit

Power supplies

| | |
|--|---|
| Direction of action | 1L-N & N-PE |
| Nominal voltage U_N | 24 V DC |
| Maximum continuous operating voltage U_C | 30 V DC |
| Rated load current I_L | 6 A (30 °C) |
| Protective conductor current I_{PE} | $\leq 5 \mu\text{A}$ |
| Nominal discharge current I_n (8/20) μs | 1 kA |
| Combination wave U_{OC} | 2 kV (2 Ω) 2 kV (2 Ω) |
| Voltage protection level U_p (DC+) - (DC-) | $\leq 0.09 \text{ kV}$ ($U_{oc} = 2 \text{ kV}$) $\leq 0.2 \text{ kV}$ ($U_{oc} = 6 \text{ kV}$) |
| Voltage protection level U_p (DC+/DC-) - PE | $\leq 0.7 \text{ kV}$ |
| Response time t_A (DC+) - (DC-) | $\leq 1 \text{ ns}$ |
| Response time t_A (DC+/DC-) - PE | $\leq 100 \text{ ns}$ |
| Short-circuit current rating I_{SCCR} | 60 A DC (without additional backup fuse) 220 A DC |
| Max. backup fuse with branch wiring | 6 A (gG) 10 A (see the note: CBM, CBMC, PTGB, CB E1) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -40 °C ... 80 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | $\leq 6000 \text{ m}$ (amsl) |

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| | |
|----------------------------------|--|
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z) |
| Vibration (operation) | 5g (10 Hz ... 150 Hz / 20 cycles/axis / X, Y, Z) |

Approvals

Conformity/Approvals

| | |
|------------------|--|
| UL, USA / Canada | Class I, Div. 2, Groups A, B, C, D T4A |
|------------------|--|

Standards and regulations

| | |
|--------------------------|--------------|
| Standards/specifications | IEC 61643-11 |
| Note | 2011 |

EN 61643-11

| | |
|--------------------------|-------------|
| Standards/specifications | EN 61643-11 |
| Note | 2012 |

Mounting

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

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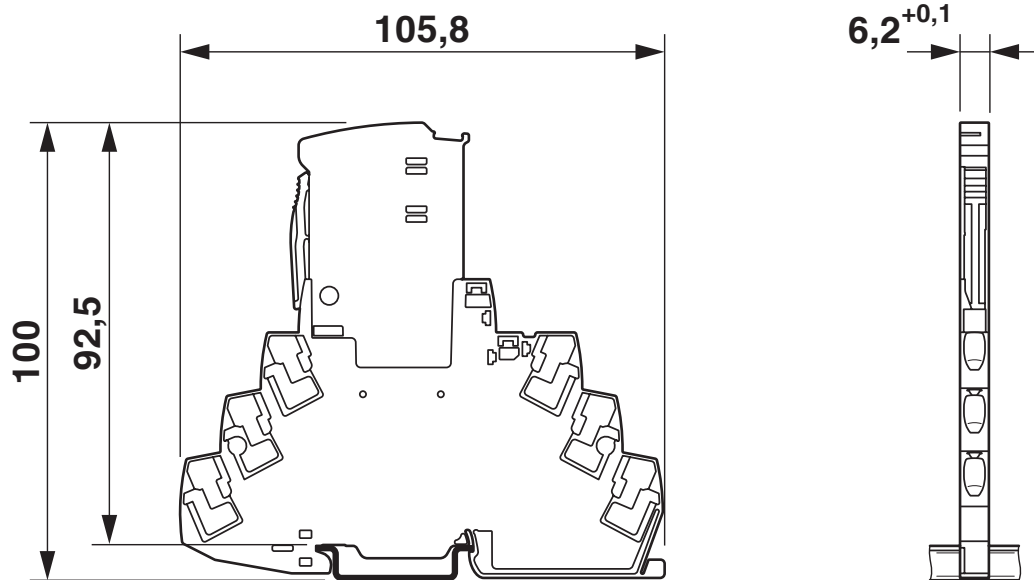


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Drawings

Dimensional drawing



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Product drawing

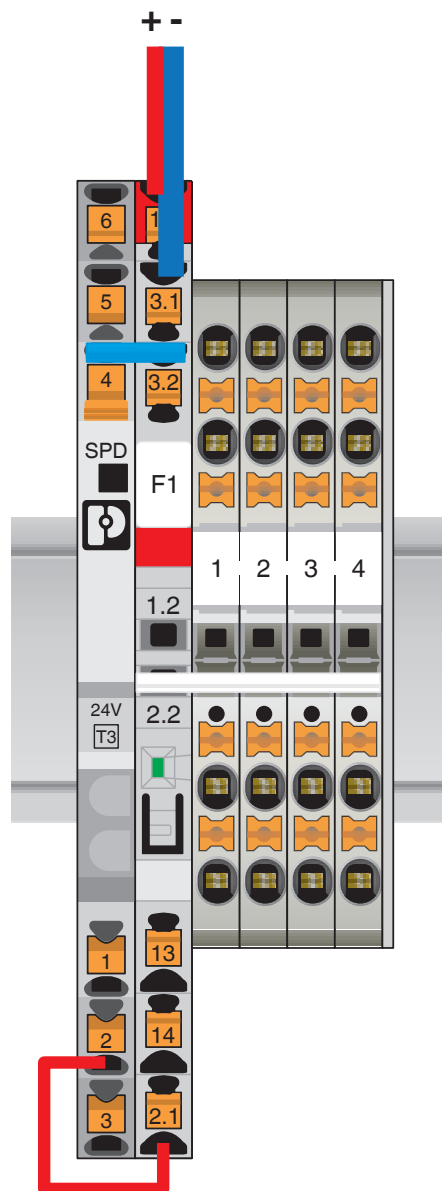


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Application drawing



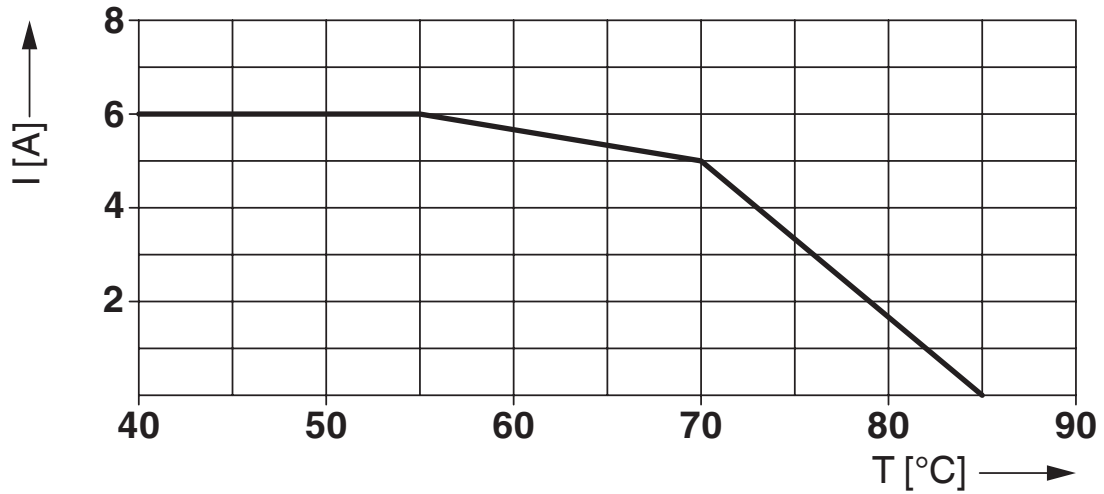
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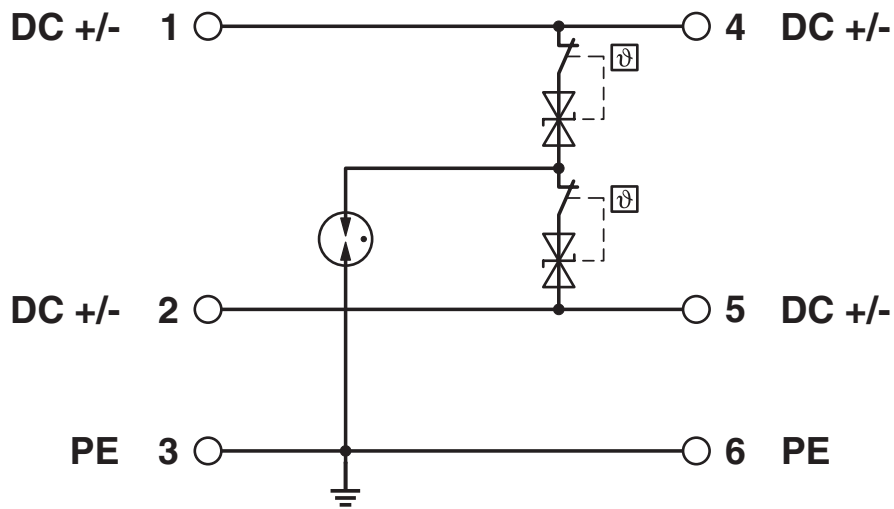
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Diagram



Circuit diagram



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Approvals


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 **UL Listed**
Approval ID: FILE E 138168


 **DNV GL**
Approval ID: TAE000027G

UAE-RoHS
Approval ID: 22-06-16783

 **UL Listed**
Approval ID: FILE E 138168

 **cUL Listed**
Approval ID: FILE E 333250

 **UL Listed**
Approval ID: FILE E 333250

 **cULus Listed**
Approval ID: File E 333250

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27171203 |
| ECLASS-15.0 | 27171203 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC000942 |
|-----------|----------|

UNSPSC

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

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Environmental product compliance

EU RoHS

| | |
|---|--------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |
| SCIP | 3e946770-56e5-4cd1-aeaa-c2ea582063dd |

EF3.1 Climate Change

| | |
|---------|---------------|
| CO2e kg | 1.073 kg CO2e |
|---------|---------------|

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