

# 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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12

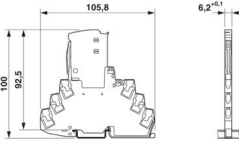
### Dimensions

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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) $\mu\text{s}$	1 kA
Combination wave $U_{OC}$	2 kV (2 $\Omega$ ) 2 kV (2 $\Omega$ )
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
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## 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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# TTC-6P-T3-24DC-PT-I - Type 3 surge protection device

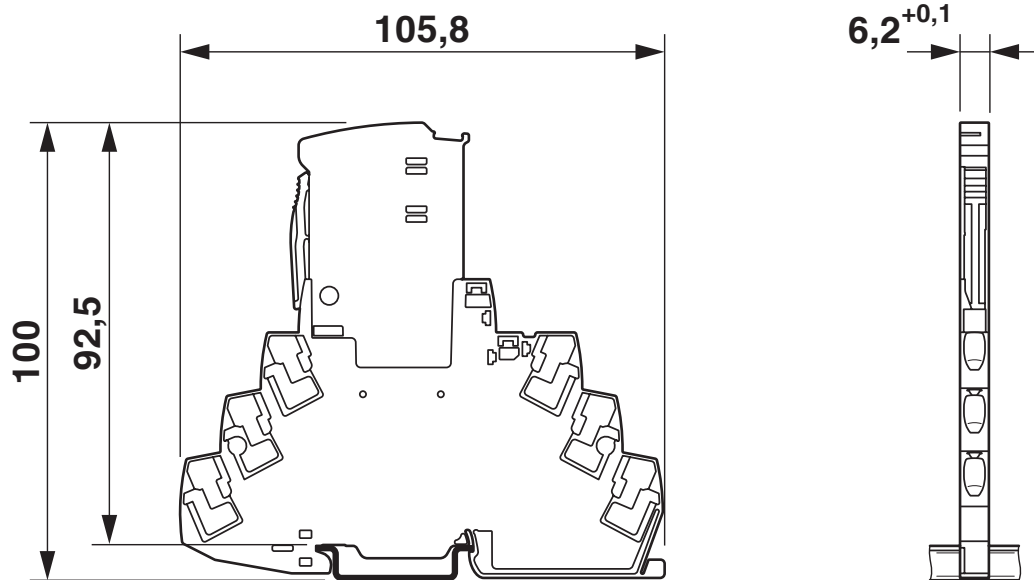


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## Drawings

Dimensional drawing



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## Product drawing

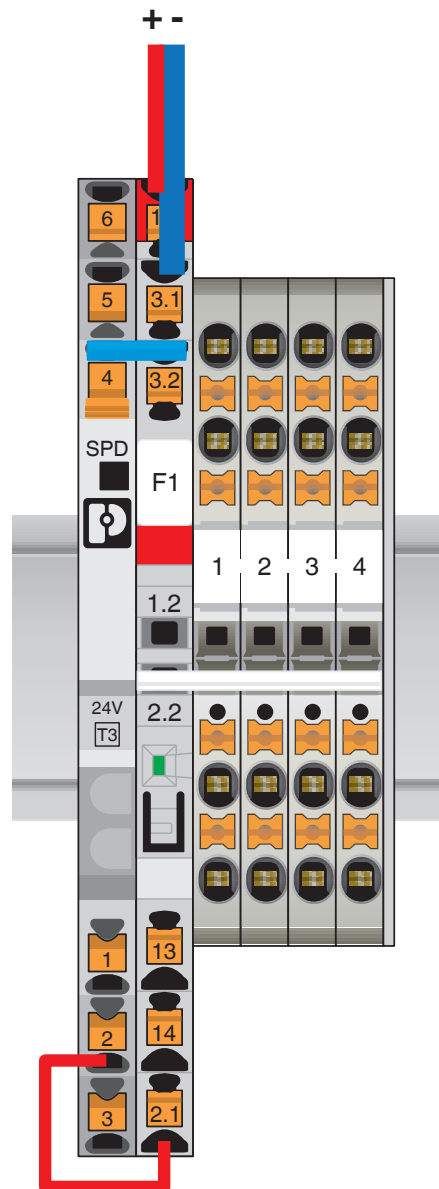


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Application drawing



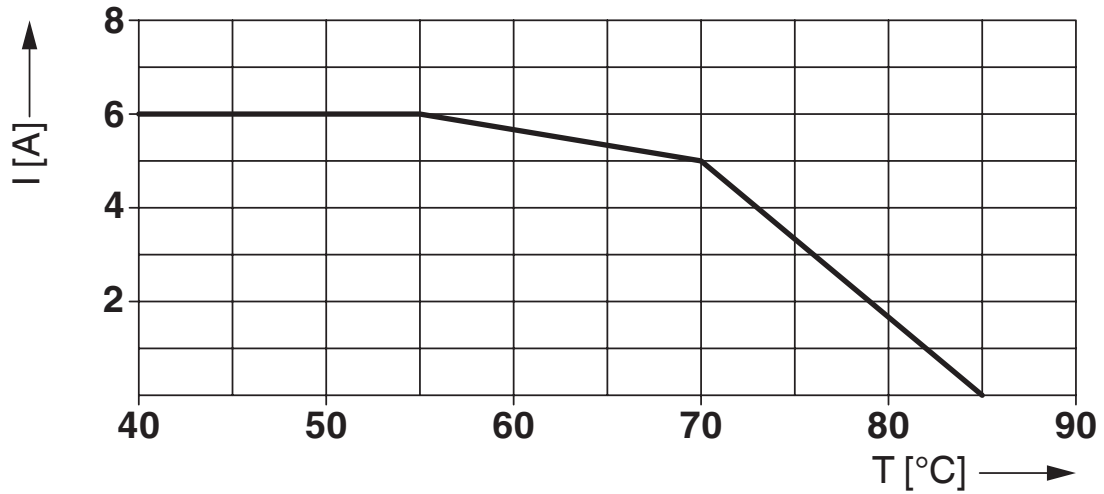
# TTC-6P-T3-24DC-PT-I - Type 3 surge protection device



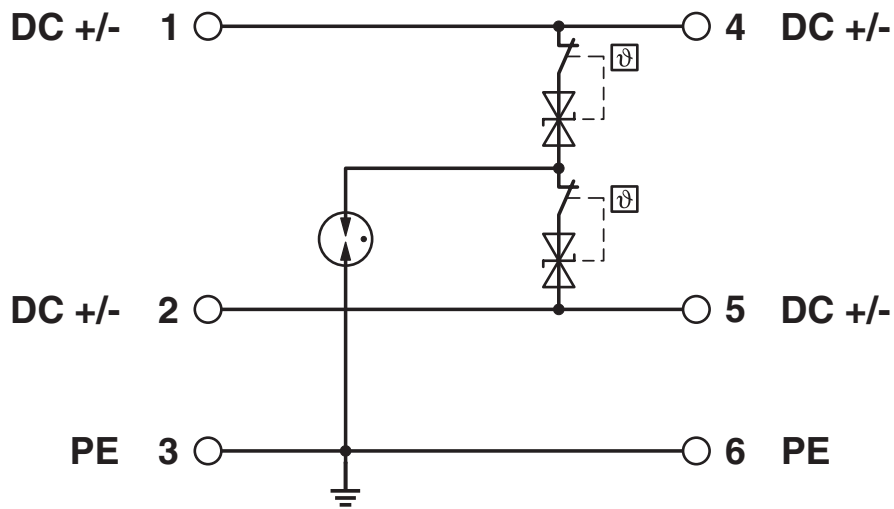
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Diagram



Circuit diagram



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## Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1027586>


 **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

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Approval ID: File E 333250

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## Classifications

### ECLASS

ECLASS-13.0	27171203
ECLASS-15.0	27171203

### ETIM

ETIM 10.0	EC000942
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### 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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