

# Surge protection device - TTC-6-TVSD-C-12DC-UT-I - 2906829

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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
- ✓ Safe behavior in the event of overload, thanks to the integrated disconnect device
- ✓ Fine surge protection by means of suppressor diode

RoHS

10 A  
IEC


12 V  
IEC

2.5 mm<sup>2</sup>

IP20

**SIL**  
 evaluated  
 IEC 61508

## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 126234
GTIN	4055626126234
Weight per Piece (excluding packing)	28.200 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
Permissible humidity (operation)	5 % ... 95 %

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## Technical data

### Ambient conditions

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	C1
	C3
Nominal voltage $U_N$	12 V DC
Maximum continuous voltage $U_C$	15 V DC
	10 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)	300 A
Voltage protection level $U_p$ (line-earth)	≤ 25 V (C1 - 0,6 kV / 300 A)
	≤ 22 V (C3 - 25 A)
	≤ 25 V (C3 - 60 A)
Response time $t_A$ (line-earth)	≤ 1 ns
Input attenuation aE, asym.	typ. 0.3 dB (≤ 340 kHz / 150 Ω)
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system	typ. 1.1 MHz
Capacity (line-earth)	2 nF
Resistance per path	≤ 100 mΩ
Surge protection fault message	optical
Impulse durability (line-earth)	C1 - 0.6 kV/300 A
	C3 - 60 A

### Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

### Standards and Regulations

# Surge protection device - TTC-6-TVSD-C-12DC-UT-I - 2906829

## Technical data

### Standards and Regulations

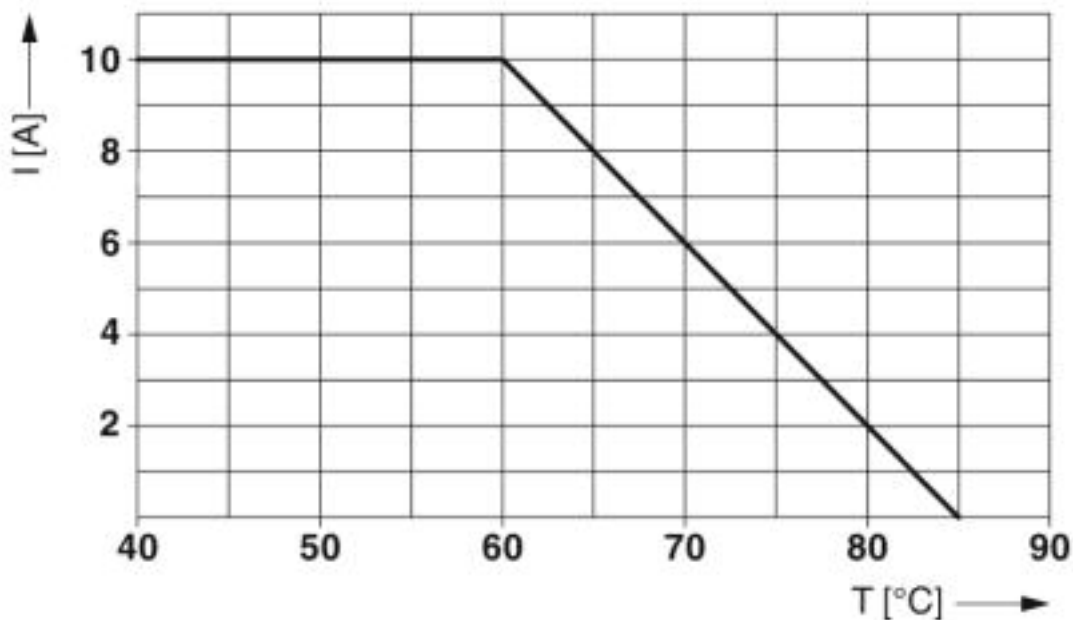
Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

### 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"

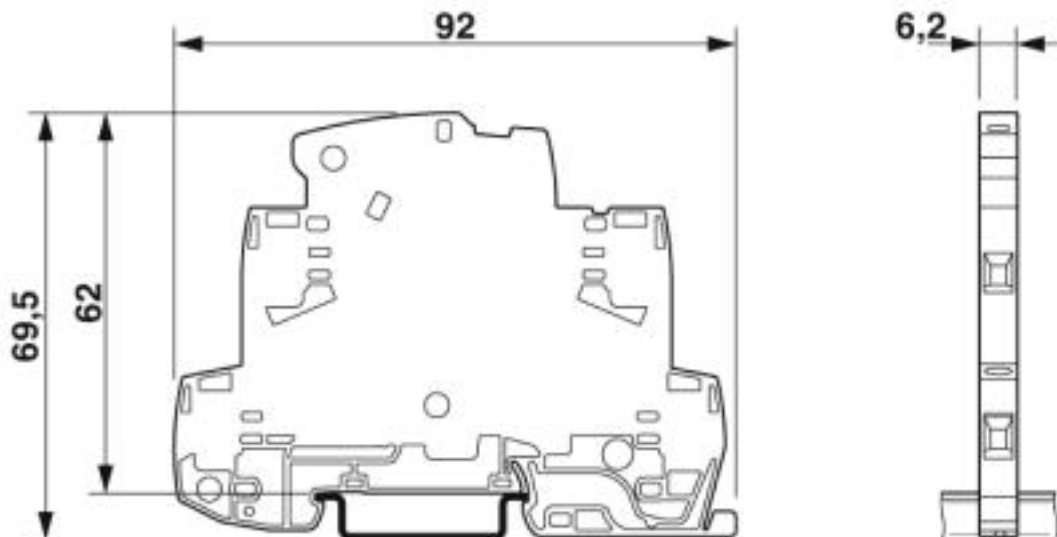
## Drawings

Diagram

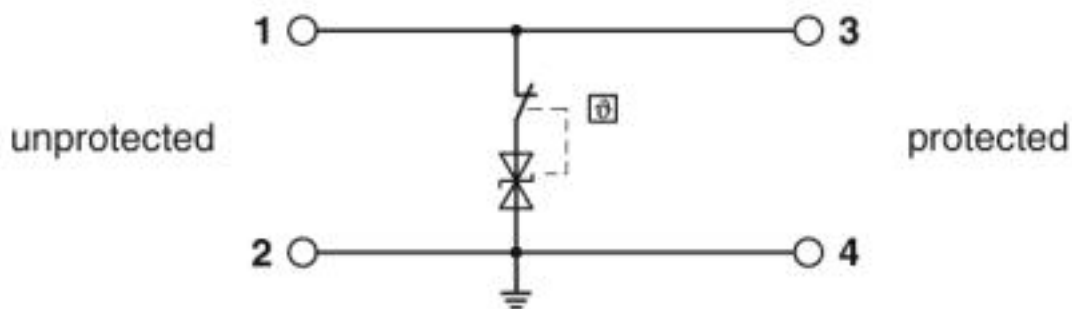


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Dimensional drawing



Circuit diagram



## 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

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## Classifications

### ETIM

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

#### Approvals

DNV GL / CSA / UL Listed / CSAus / cCSAus

#### Ex Approvals

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE000027G
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	70136717
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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
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CSAus		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	70136717
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## Approvals

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

#### 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

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### Accessories

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

Remote signaling set - TTC-6-FMRS-UT - 2907810



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

Cover - TTC-6-LCP - 2908729



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

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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### Accessories

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

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