

TTC-6-2-24DC-UT - Surge protection device



2906800

<https://www.phoenixcontact.com/us/products/2906800>

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 for resistance-dependent measuring signals.



Your advantages

- Space saving with a narrow overall width of just 6□mm
- Cost-optimized with tailored product features
- Easy selection for all possible demands in MCR applications with a complete product portfolio

Commercial data

Item number	2906800
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL23
Product key	CL2261
Catalog page	Page 143 (C-4-2019)
GTIN	4055626135557
Weight per piece (including packing)	37.2 g
Weight per piece (excluding packing)	30 g
Customs tariff number	85363010
Country of origin	DE

TTC-6-2-24DC-UT - Surge protection device

2906800

<https://www.phoenixcontact.com/us/products/2906800>

Technical data

Product properties

IEC test classification	C1
	C2
	C3
	D1
Type	DIN rail module, one-piece
Product type	Surge protection for MCR technology
Product family	TERMITRAB complete

Insulation characteristics

Overvoltage category	III
Pollution degree	2

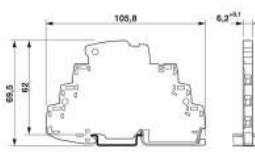
Electrical properties

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

Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
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	69.5 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

TTC-6-2-24DC-UT - Surge protection device



2906800

<https://www.phoenixcontact.com/us/products/2906800>

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

Protective circuit

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	450 mA (80 °C)
Operating effective current I_C at U_C	$\leq 5 \mu\text{A}$
Residual current I_{PE}	$\leq 1 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (line-line)	0.5 kA
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-line)	$\leq 60 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 45 \text{ V}$ (C3 - 25 A)
	$\leq 50 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p (line-earth)	$\leq 650 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 1.1 \text{ kV}$ (C2 - 10 kV / 5 kA)
	$\leq 600 \text{ V}$ (C3 - 25 A)
	$\leq 700 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p static (line-earth)	$\leq 1.1 \text{ kV}$ (C2 - 10 kV / 5 kA)
Response time t_A (line-line)	$\leq 1 \text{ ns}$
Response time t_A (line-earth)	$\leq 100 \text{ ns}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 300 \text{ kHz}$ / 150 Ω)
Cut-off frequency fg (3 dB), sym. in 150 Ω system	typ. 965 kHz
Capacity (Core-Earth)	typ. 2.2 nF
Resistance per path	$\leq 100 \text{ m}\Omega$
Surge protection fault message	none
Max. required back-up fuse	500 mA (FF)
Impulse durability (line-line)	C1 - 1 kV / 500 A
	C3 - 100 A
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)	$\leq 1 \text{ s}$

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
----------------------	------

TTC-6-2-24DC-UT - Surge protection device



2906800

<https://www.phoenixcontact.com/us/products/2906800>

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 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

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

Mounting

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

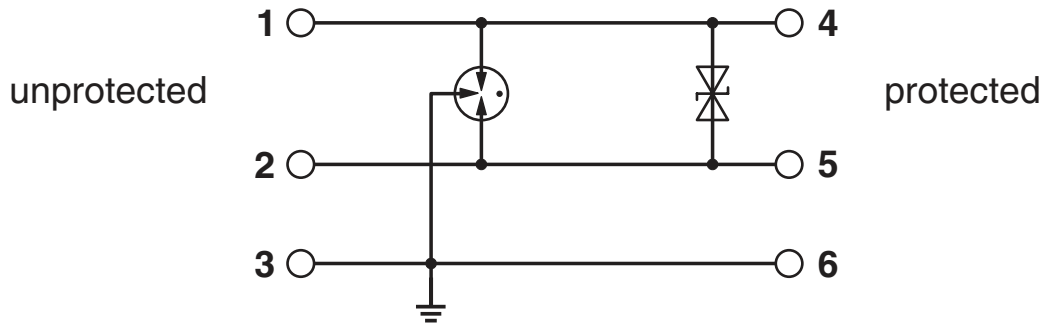
TTC-6-2-24DC-UT - Surge protection device

2906800

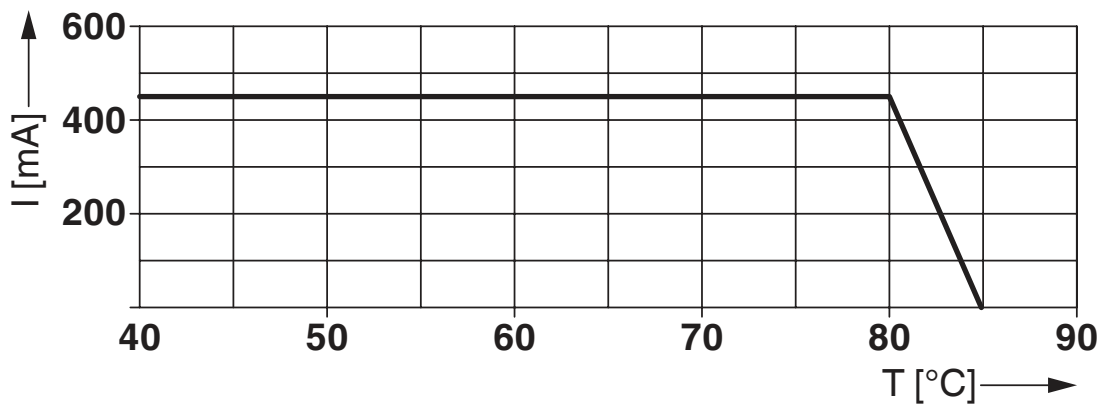
<https://www.phoenixcontact.com/us/products/2906800>

Drawings

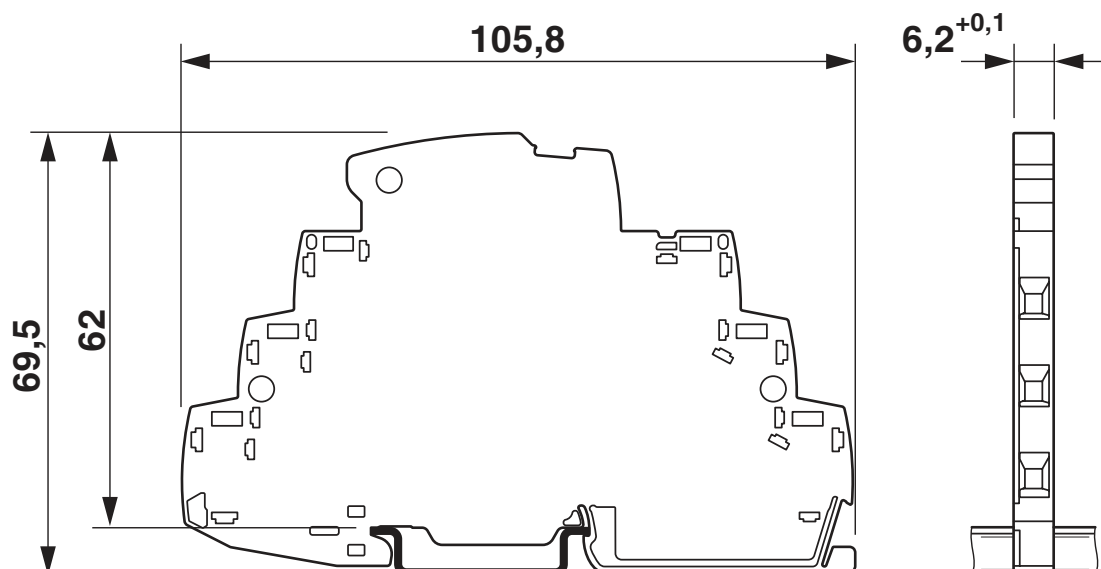
Circuit diagram



Diagram



Dimensional drawing



TTC-6-2-24DC-UT - Surge protection device




2906800

<https://www.phoenixcontact.com/us/products/2906800>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2906800>

 **CSA**
Approval ID: 70136717

 **DNV GL**
Approval ID: TAE000027G

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

 **CSAus**
Approval ID: 70136717

UAE-RoHS
Approval ID: 22-06-16191

cCSAus

TTC-6-2-24DC-UT - Surge protection device



2906800

<https://www.phoenixcontact.com/us/products/2906800>

Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

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

UNSPSC

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

TTC-6-2-24DC-UT - Surge protection device



2906800

<https://www.phoenixcontact.com/us/products/2906800>

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-6-2-24DC-UT - Surge protection device



2906800

<https://www.phoenixcontact.com/us/products/2906800>

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-6-2-24DC-UT - Surge protection device

2906800

<https://www.phoenixcontact.com/us/products/2906800>

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-6-2-24DC-UT - Surge protection device

2906800

<https://www.phoenixcontact.com/us/products/2906800>



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-FC-UT - Fuse holder

1054762

<https://www.phoenixcontact.com/us/products/1054762>



Fuse carrier for surge protective devices of the TERMITRAB complete product range with screw connection technology. Multi-level connection on TTC-6 housings possible. For conventional 5x20 mm miniature fuses.

TTC-6-2-24DC-UT - Surge protection device

2906800

<https://www.phoenixcontact.com/us/products/2906800>

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-6-2-24DC-UT - Surge protection device

2906800

<https://www.phoenixcontact.com/us/products/2906800>



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

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