

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



2906805

<https://www.phoenixcontact.com/pc/products/2906805>

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 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
- Quick and tool-free installation of surge protective devices, thanks to Push-in connection technology
- Finding the right product for all possible requirements in MCR applications is easy, thanks to the complete range of products with customized features

Commercial data

Item number	2906805
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CL2262
Catalog page	Page 130 (C-4-2019)
GTIN	4055626135595
Weight per piece (including packing)	34.1 g
Weight per piece (excluding packing)	31.24 g
Customs tariff number	85363010
Country of origin	DE

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



2906805

<https://www.phoenixcontact.com/pc/products/2906805>

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	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	69.5 mm (incl. DIN rail 7.5 mm)

Material specifications

Color	gray (RAL 7042)
	light grey (RAL 7035)
Flammability rating according to UL 94	V-0
Insulating material	PBT
Housing material	PBT

Mechanical properties

Mechanical data

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



2906805

<https://www.phoenixcontact.com/pc/products/2906805>

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	600 mA (40 °C)
Operating effective current I_C at U_C	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 10 \mu A$
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)	$\leq 140 V$ (C1 - 1 kV / 500 A) $\leq 130 V$ (C2 - 10 kV / 5 kA) $\leq 45 V$ (C3 - 25 A) $\leq 50 V$ (C3 - 100 A)
Voltage protection level U_p static (line-earth)	$\leq 55 V$ (C1 - 1 kV / 500 A) $\leq 80 V$ (C2 - 10 kV / 5 kA)
Response time t_A (line-earth)	$\leq 1 ns$
Input attenuation aE, asym.	typ. 0.3 dB ($\leq 270 kHz/150 \Omega$) typ. 0.3 dB ($\leq 407 kHz / 100 \Omega$)
Cut-off frequency f_g (3 dB), asym. (PE) in 100 Ω system	typ. 1280 kHz
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	none
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)	$\leq 300 ms$

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	$\leq 4000 m$ (amsl)
Permissible humidity (operation)	5 % ... 95 %

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



2906805

<https://www.phoenixcontact.com/pc/products/2906805>

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

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

D-32825 Blomberg

+49 (0) 5235-3 00

info@phoenixcontact.com