Surge protection device - TTC-6-2X1-24DC-PT - 2906805

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Surge protection for two signal wires with common reference potential, e.g., Digital IN/OUT.

Why buy this product

- Space-saving installation due to the narrow overall width of 6.2 mm
- Quick and tool-free installation of surge protective devices, thanks to Push-in connection technology



Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 135595
GTIN	4055626135595

Technical data

Dimensions

Height	105.8 mm
Width	6.2 mm +0.1 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
Altitude	≤ 4000 m (amsl (above mean sea level))
Degree of protection	IP20

General

Housing material	PBT
Flammability rating according to UL 94	V-0
Color	traffic grey A RAL 7042

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Technical data

General

Mounting type	DIN rail: TH 35 - 7.5 mm
Type	DIN rail module, one-piece
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous voltage U_C	30 V DC
Rated current	600 mA (40 °C)
Operating effective current I_C at U_C	≤ 5 µA
Residual current I_{PE}	≤ 10 µA
Nominal discharge current I_n (8/20) µs (line-earth)	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)	≤ 140 V (C1 - 1 kV/500 A)
	≤ 130 V (C2 - 10 kV / 5 kA)
	≤ 45 V (C3 - 25 A)
	≤ 50 V (C3 - 100 A)
Voltage protection level U_p static (line-earth)	≤ 55 V (C1 - 1 kV/500 A)
	≤ 80 V (C2 - 10 kV / 5 kA)
Response time t_A (line-earth)	≤ 1 ns
Input attenuation aE, asym.	typ. 0.3 dB (≤ 270 kHz/150 Ω)
Cut-off frequency fg (3 dB), asym. (PE) in 150 Ohm system	typ. 960 kHz
Capacity (line-earth)	typ. 2.2 nF
Resistance in series	1.65 Ω ±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)	≤ 300 ms

Additional technical data

Max. total discharge current $I_{total\ max}$ (8/20) µs	20 kA (1x)

Connection data

Connection method	Push-in connection

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Connection data

Stripping length	8 mm
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Standards and Regulations

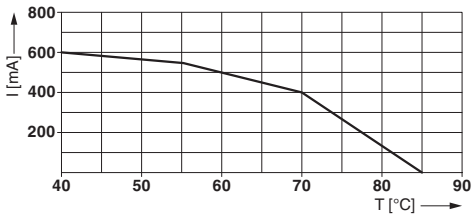
Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

Drawings

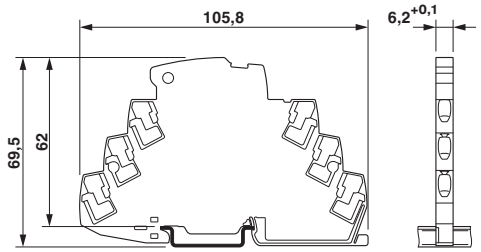
Pictogram



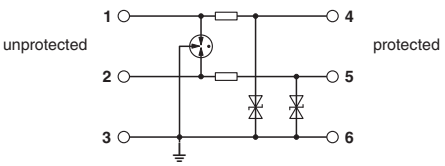
Diagram



Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

UL Listed / CSA / CSAus / DNV GL / cCSAus

Ex Approvals

Approval details

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Approvals

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
CSA		http://www.csagroup.org/services-industries/product-listing/	70136717
CSAus		http://www.csagroup.org/services-industries/product-listing/	70136717
DNV GL		http://exchange.dnv.com/tari/	TAE000027G
cCSAus		http://www.csagroup.org/services-industries/product-listing/	

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