

Surge protection device - TTC-3-2X1-24DC-PT



2907326

<https://www.phoenixcontact.com/us/products/2907326>

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



Your advantages

- Extremely space-saving installation with the narrowest overall width of just 3.5 mm
- Cost-optimized with tailored product features
- Finding the right product for all possible requirements in MCR applications is easy, thanks to the complete range of products with customized features

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Commercial Data

Item number	2907326
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	C07
Product Key	CL2266
Catalog Page	Page 131 (C-4-2019)
GTIN	4055626199924
Weight per Piece (including packing)	24.3 g
Weight per Piece (excluding packing)	24.2 g
Customs tariff number	85363010
Country of origin	DE

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Technical Data

Product properties

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

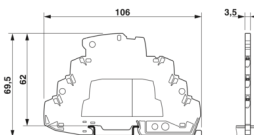
Insulation characteristics

Overvoltage category	III
Pollution degree	2

Connection data

Connection method	Push-in connection
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm ² ... 1 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section solid	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16

Dimensions

Dimensional drawing	
Width	3.5 mm
Height	106 mm
Depth	69.5 mm (incl. DIN rail 7.5 mm)

Material specifications

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

Mechanical properties

Mechanical data

Open side panel	Yes
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Protective circuit

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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	250 mA (70°C)
Operating effective current I_C at U_C	$\leq 1 \mu A$
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge surge current I_n (8/20) μs (Core-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)	$\leq 50 V$ (C1 - 500 V / 250 A)
	$\leq 100 V$ (C2 - 10 kV / 5 kA)
	$\leq 50 V$ (C3 - 30 A)
Response time t_A (line-earth)	$\leq 1 ns$
Input attenuation aE, asym.	typ. 0.3 dB ($\leq 600 kHz$ / 150 Ω)
Cut-off frequency f_g (3 dB), asym. (signal ground) in 150 Ω system	typ. 2.4 MHz
Capacity (Core-Earth)	typ. 1 nF
Resistance per path	2.2 $\Omega \pm 10 \%$
Surge protection fault message	none
Max. required back-up fuse	250 mA (FF)
Impulse durability (line-earth)	C1 - 500 V / 250 A
	C2 - 10 kV / 5 kA
	C3 - 30 A
	D1 - 500 A
Pulse reset time (line-earth)	$\leq 30 ms$

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (with end cover)
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	$\leq 4000 m$ (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

Standards/specifications	IEC 61643-21
Standards/specifications	EN 61643-21

Mounting

Mounting type	DIN rail: TH 35 - 7.5 mm
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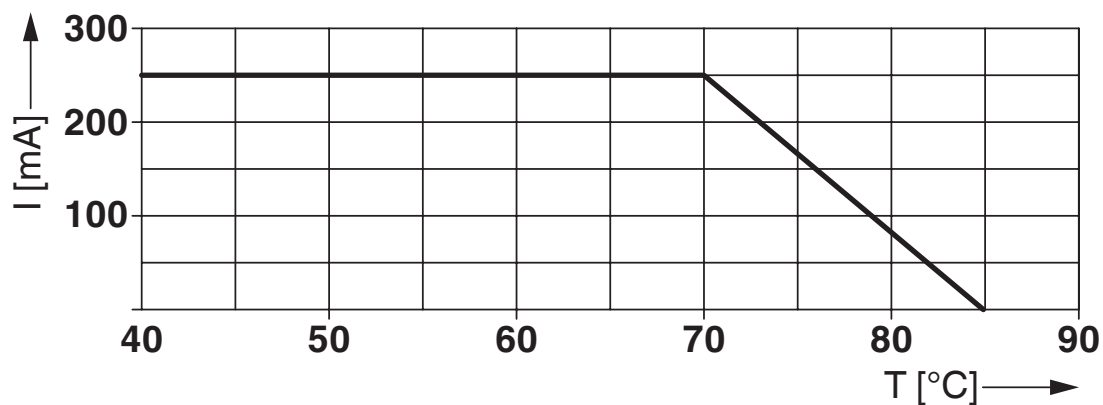
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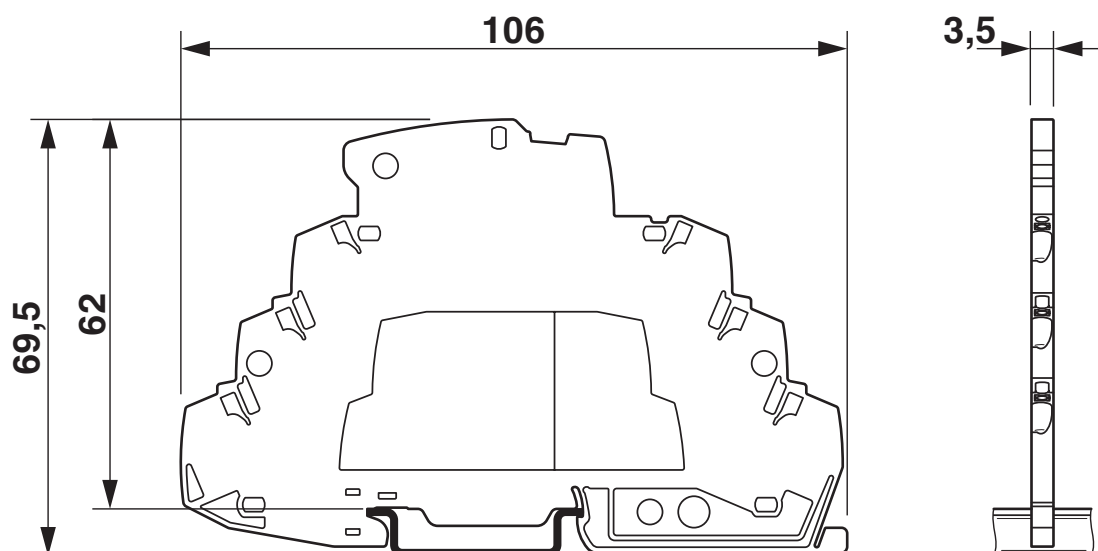


Drawings

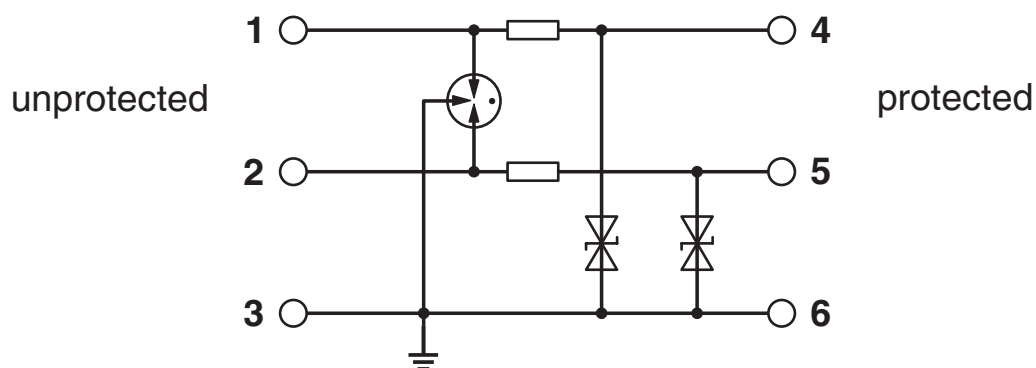
Diagram



Dimensional drawing



Circuit diagram



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Approvals



CSA
Approval ID: 70136717

	DNV GL Approval ID: TAE000027G				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²	
			-	-	



UL Listed
Approval ID: FILE E 138168



CSAus
Approval ID: 70136717

cCSAus

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Classifications

ECLASS

ECLASS-9.0	27130807
ECLASS-10.0.1	27130807
ECLASS-11.0	27130807

ETIM

ETIM 8.0	EC000943
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UNSPSC

UNSPSC 21.0	39121600
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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"

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Accessories

Marker pen

Marker pen - X-PEN 0,35 - 0811228

<https://www.phoenixcontact.com/us/products/0811228>

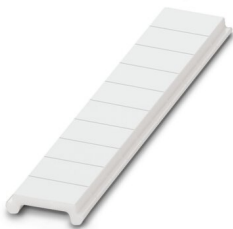


Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

Zack Marker strip, flat

Zack Marker strip, flat - ZBF 3,5:UNBEDRUCKT - 0829392

<https://www.phoenixcontact.com/us/products/0829392>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 3.5 mm, lettering field size: 3.5 x 5.2 mm, Number of individual labels: 10

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Zack Marker strip, flat

Zack Marker strip, flat - ZBF 3,5,LGS:FORTL.ZAHLEN - 0801406

<https://www.phoenixcontact.com/us/products/0801406>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snapped, for terminal block width: 3.5 mm, lettering field size: 5.15 x 3.5 mm, Number of individual labels: 10

End clamp

End clamp - CLIPFIX 35-5 - 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

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Cover

Cover - TTC-3-LCP - 2908843

<https://www.phoenixcontact.com/us/products/2908843>

End cover for terminating a row of TERMITRAB complete TTC-3... terminal blocks



Ferrule

Ferrule - AI-S 1 - 8 TQ - 1200293

<https://www.phoenixcontact.com/us/products/1200293>

Ferrule, S-Slimline, sleeve length: 8 mm, length: 14.5 mm, color: turquoise



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