

TTC-6-3-HF-F-24AC-PT-I - Surge protection device



1088786

<https://www.phoenixcontact.com/us/products/1088786>

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Surge protection with integrated status indicator for three signal wires with common reference potential. For HF applications and telecommunications interfaces without supply voltage (up to 90 Mbps). Indirect grounding via gas discharge tube.

Your advantages

- Space-saving and cost-saving with a narrow overall width of just 6 mm
- Continuous monitoring of protective devices, plus mechanical status indicator with optional remote signaling
- 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	1088786
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL23
Product key	CL2262
GTIN	4055626891712
Weight per piece (including packing)	38.2 g
Weight per piece (excluding packing)	37 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Product properties

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

Data management status

Article revision	02
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Insulation characteristics

Overvoltage category	III
Pollution degree	2

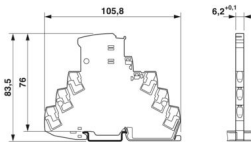
Electrical properties

Nominal voltage U_N	24 V AC
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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	83.5 mm (incl. DIN rail 7.5 mm)

Material specifications

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

Mechanical properties

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Mechanical data

Open side panel	No
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Protective circuit

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Maximum continuous voltage U_C	43 V DC 30 V AC
Rated current	600 mA (40 °C)
Residual current I_{PE}	$\leq 1 \mu A$
Nominal discharge current I_n (8/20) μs	10 kA
Pulse discharge current I_{imp} (10/350) μs	2.5 kA
Total discharge current I_{total} (8/20) μs	10 kA
Voltage protection level U_p (line-line)	$\leq 80 V$ (C1 - 1 kV / 500 A) $\leq 80 V$ (C1 - 1 kV / 500 A, $>1 \mu s$) $\leq 150 V$ (C2 - 10 kV / 5 kA) $\leq 70 V$ (C2 - 10 kV / 5 kA, $>1 \mu s$) $\leq 75 V$ (C3 - 100 A) $\leq 75 V$ (C3 - 100 A, $>1 \mu s$)
Voltage protection level U_p (line-earth)	$\leq 900 V$ (C1 - 1 kV / 500 A) $\leq 100 V$ (C1 - 1 kV / 500 A, $>1 \mu s$) $\leq 1 kV$ (C2 - 10 kV / 5 kA) $\leq 70 V$ (C2 - 10 kV / 5 kA, $>1 \mu s$) $\leq 1200 V$ (C3 - 100 A) $\leq 70 V$ (C3 - 100 A, $>1 \mu s$)
Voltage protection level U_p (line-signalground)	$\leq 90 V$ (C1 - 1 kV / 500 A) $\leq 90 V$ (C1 - 1 kV / 500 A, $>1 \mu s$) $\leq 170 V$ (C2 - 10 kV / 5 kA) $\leq 70 V$ (C2 - 10 kV / 5 kA, $>1 \mu s$) $\leq 75 V$ (C3 - 70 A) $\leq 75 V$ (C3 - 70 A, $>1 \mu s$)
Response time t_A (line-line)	$\leq 1 ms$
Response time t_A (line-earth)	$\leq 55 ms$
Response time t_A (line-signalground)	$\leq 1 ms$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 10 MHz/150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 60 MHz
Capacity (Core-Core)	typ. 25 pF
Capacity (Core-Earth)	typ. 50 pF
Capacity (line-signalground)	typ. 25 pF
Resistance per path	1.65 $\Omega \pm 20 \%$
Surge protection fault message	optical
Max. required back-up fuse	630 mA (FF)
Impulse durability (line-line)	C1 - 1 kV / 500 A C2 - 10 kV / 5 kA

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Impulse durability (line-earth)	C2 - 10 kA
	C3 - 100 A
	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 100 A
Impulse durability (line-signalground)	D1 - 2.5 kA
	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 70 A

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	≤ 4000 m (amsl)
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Standards and regulations

Standards/specifications	IEC 61643-21
Note	2000 + A1:2008 + A2:2012

EN 61643-21

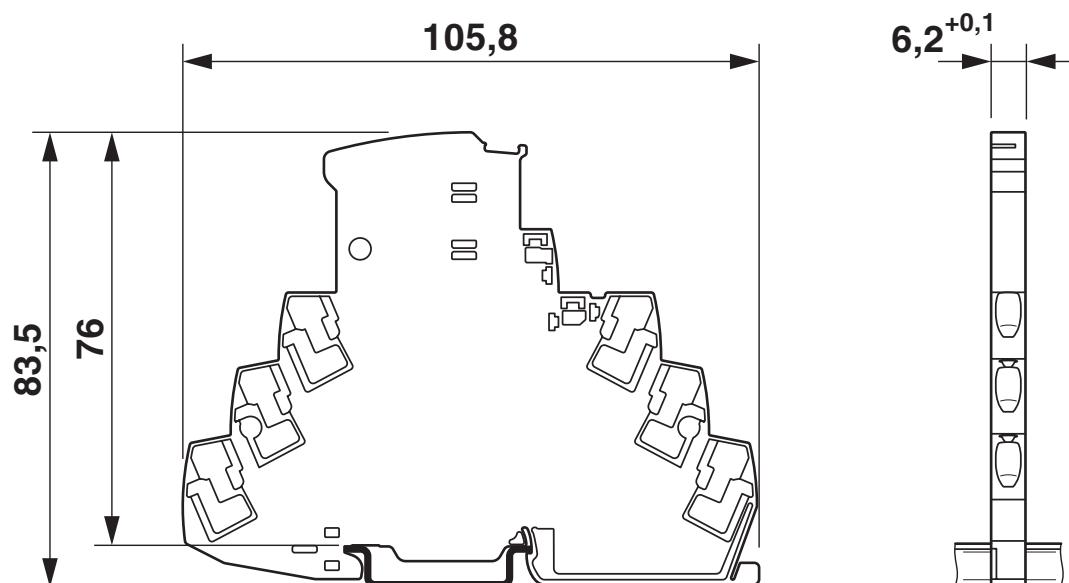
Standards/specifications	EN 61643-21
Note	2001 + A1:2009 + A2:2013

Mounting

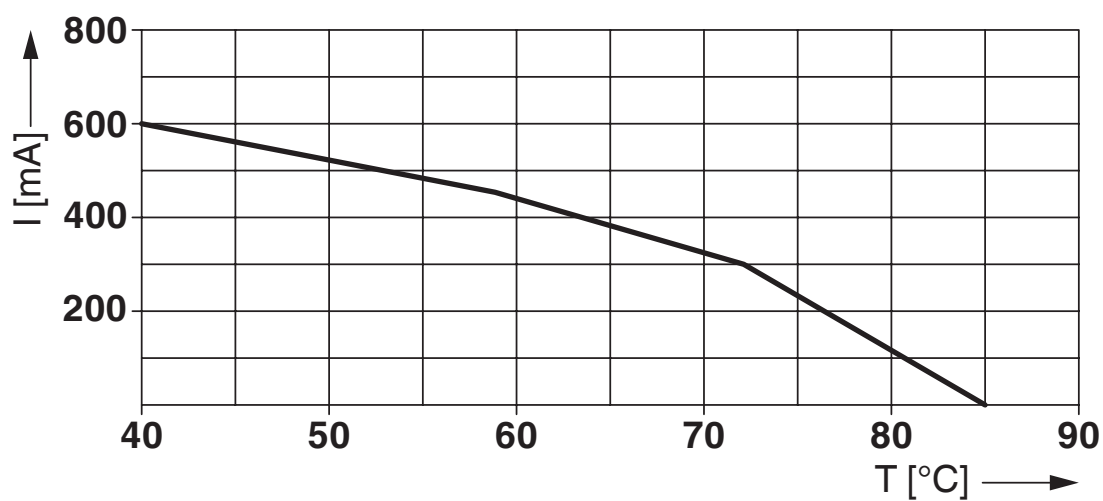
Mounting type	DIN rail: TH 35 - 7.5 mm
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Drawings

Dimensional drawing



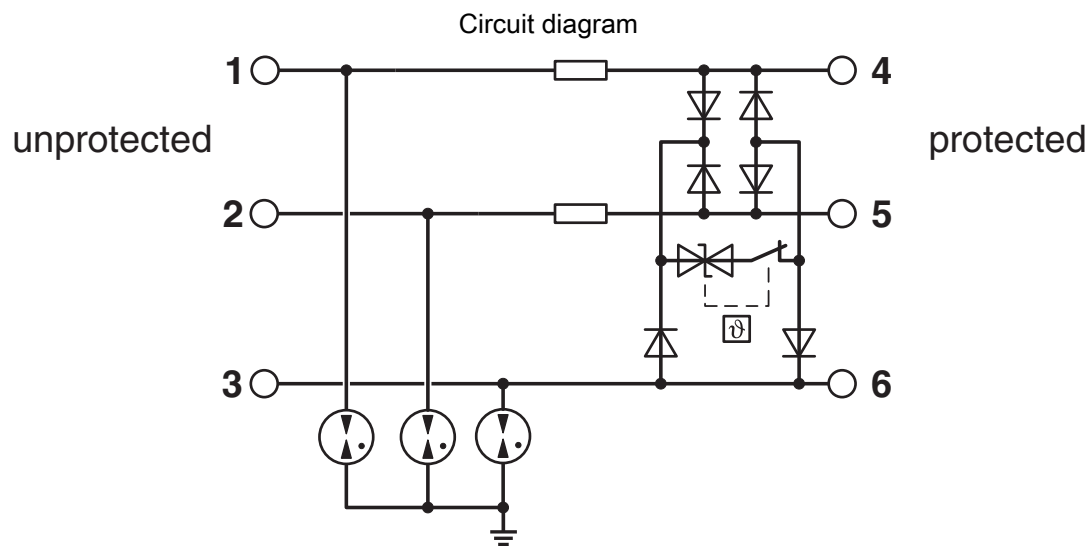
Diagram



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Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171503

ETIM

ETIM 9.0	EC001466
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	1038112a-79db-461e-bf6a-5ea278c79e20

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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

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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

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CLIPFIX 35-5 - End bracket

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-FMRS-PT - Remote signaling set

2907811

<https://www.phoenixcontact.com/us/products/2907811>



Module set for the optical monitoring and floating remote signaling of adjacent surge protective devices in the TERMITRAB complete or CLIXTRAB product family. Suitable for directly grounded DIN rails.

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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



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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

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