

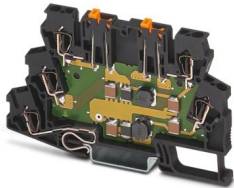
TT-ST-M-SFP-24AC - Surge protection device



2858946

<https://www.phoenixcontact.com/us/products/2858946>

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TERMITRAB, spring-cage modular terminal block with integrated surge protection as a filter circuit and disconnect knives, for assembly on NS 35/7.5, voltage U_N 24 V DC, terminal width: 6.2 mm, cover width: 2.2 mm

Your advantages

- Effective high-frequency interference attenuation with coils and X and Y capacitors
- Space-saving and cost-saving with a narrow overall width
- Disconnection of signal circuits by disconnect knife

Commercial data

Item number	2858946
Packing unit	1 pc
Sales key	CL06
Product key	CLC141
Catalog page	Page 210 (C-4-2019)
GTIN	4017918938161
Weight per piece (including packing)	30.15 g
Weight per piece (excluding packing)	27.55 g
Customs tariff number	85363030
Country of origin	DE

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Technical data

Product properties

IEC test classification	C1
	C3
Type	Double-level terminal block
Product type	EMC filters
Product family	SFP
Surge protection fault message	none

Insulation characteristics

Overvoltage category	III
Pollution degree	2

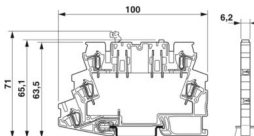
Electrical properties

Nominal voltage U_N	24 V AC
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Connection data

Connection method	Spring-cage 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
Height	100 mm
Depth	65.1 mm (incl. DIN rail 7.5 mm)

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
Housing material	PA 6.6

Mechanical properties

Mechanical data

Open side panel	Yes
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Protective circuit

Direction of action	Line-Earth Ground
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Maximum continuous voltage U_C	38 V DC
	30 V AC
Rated current	500 mA (55 °C)
Operating effective current I_C at U_C	$\leq 100 \mu\text{A}$ (per path)
Residual current I_{PE}	$\leq 1 \text{ mA}$ (per path)
Nominal discharge current I_n (8/20) μs (line-ground)	350 A (per path)
	700 A (in total)
Total discharge current I_{total} (8/20) μs	700 A
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	1.5 kA (per path)
	3 kA (in total)
Nominal pulse current I_{an} (10/1000) μs (line-earth)	40 A (per path)
	80 A (in total)
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 70 \text{ V}$ (per path)
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 70 \text{ V}$ (per path)
Residual voltage at I_n (conductor-ground)	$\leq 80 \text{ V}$
Residual voltage with I_{an} (10/1000) μs (line-earth)	$\leq 80 \text{ V}$
Voltage protection level U_p (line-earth)	$\leq 80 \text{ V}$ (C1 - 500 V / 250 A)
Response time t_A (line-earth)	$\leq 25 \text{ ns}$
Input attenuation aE, asym.	typ. 40 dB (1 MHz/150 Ω)
Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ω system	typ. 60 kHz
Cut-off frequency f_g (3 dB), asym. (PE) in 150 Ω system	typ. 20 kHz
Capacity (Core-Earth)	typ. 130 nF
Inductivity in series	typ. 100 μH
Resistance per path	0.5 Ω
Surge protection fault message	none
Max. required back-up fuse	500 mA (T)
Impulse durability (line-earth)	C1 - 500 V / 250 A
	C3 - 40 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Altitude	$\leq 2000 \text{ m}$ (amsl)

Standards and regulations

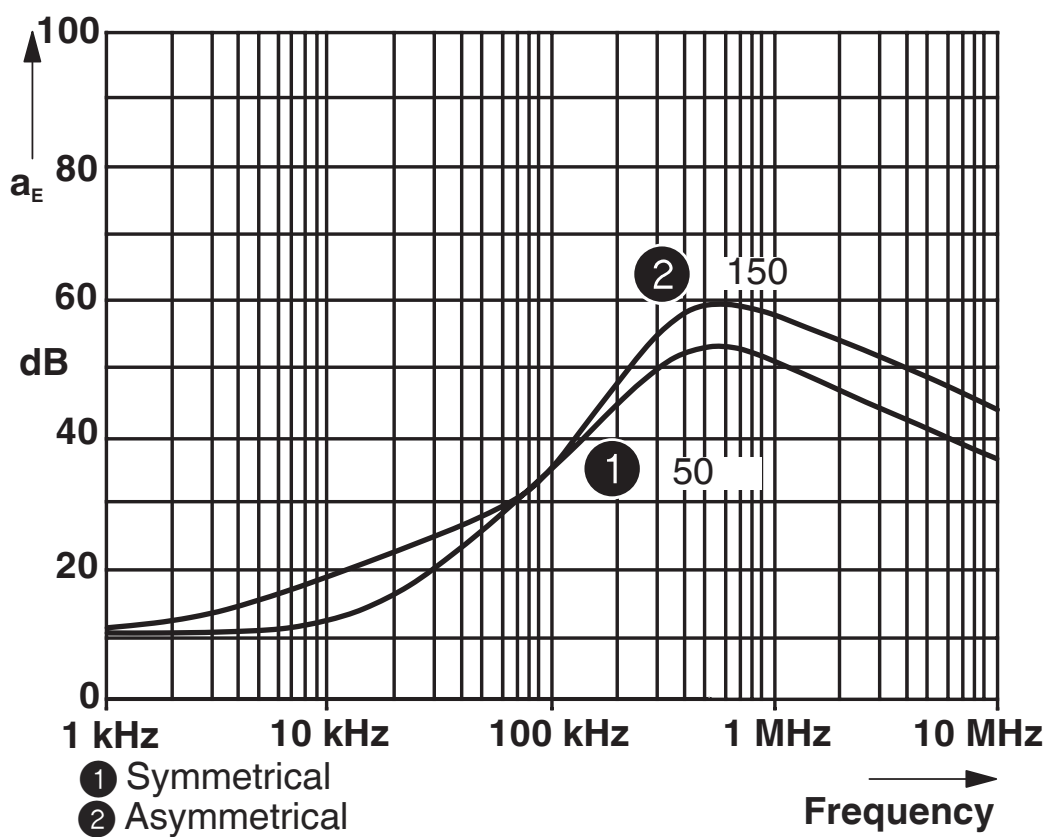
Standards/specifications	IEC 61643-21
Note	2000 + A1:2008
Standards/specifications	EN 61643-21
Note	2001 + A1:2009

Mounting

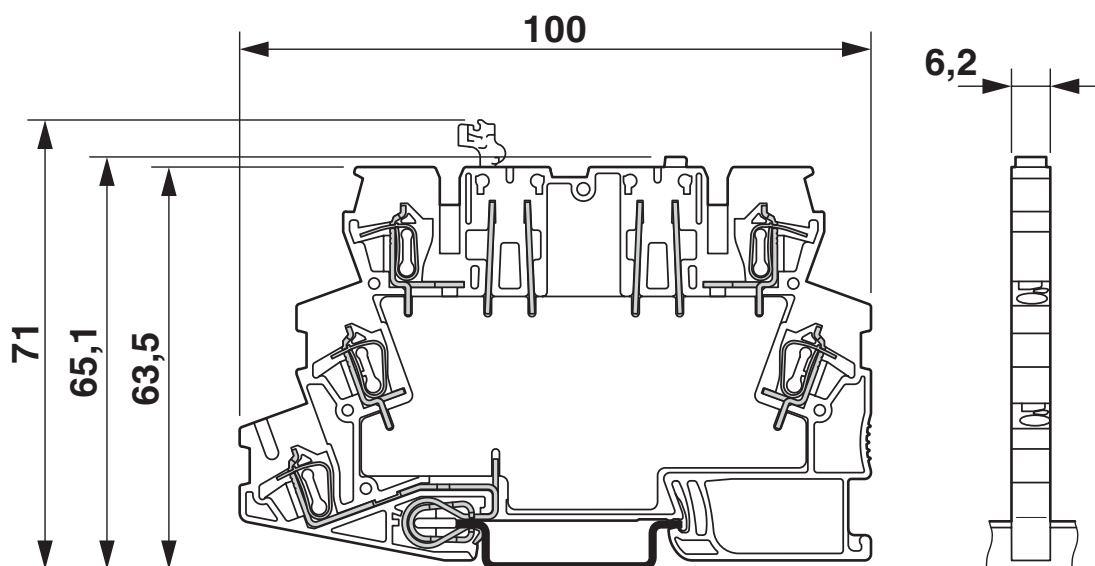
Mounting type	DIN rail: 35 mm
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Drawings

Diagram



Dimensional drawing



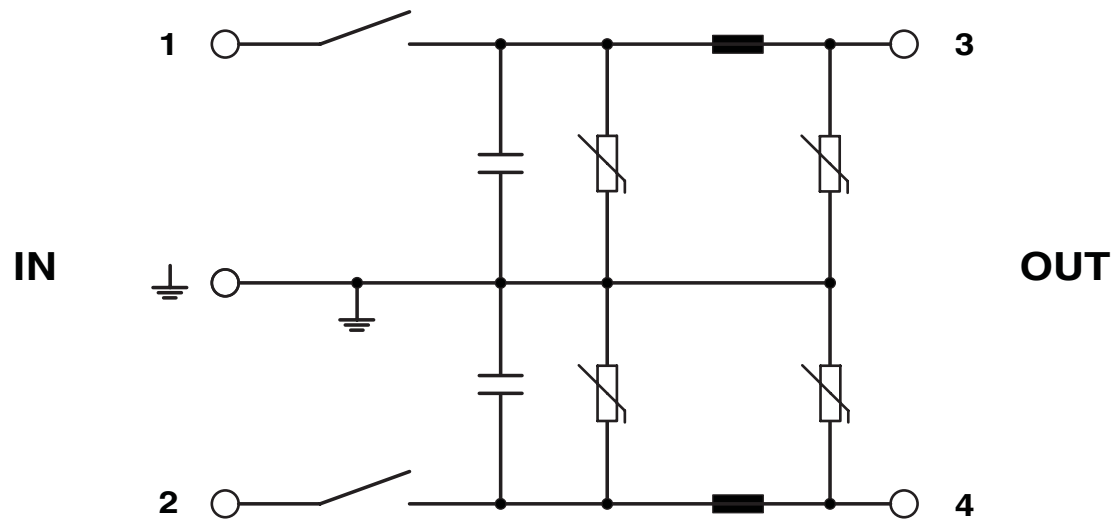
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Circuit diagram



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Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2858946>



EAC

Approval ID: EAC-Zulassung



EAC

Approval ID: RU C-DE.*09.B.00169



UL Listed

Approval ID: FILE E 138168

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Classifications

ECLASS

ECLASS-11.0	27130807
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ETIM

ETIM 8.0	EC000943
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com