

Surge protection device - TT-ST-2-PE-24DC - 2858878

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Spring cage modular terminal block with integrated surge protection, 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

- ✓ Multi-stage modular terminal blocks with spring-cage connection
- ✓ Disconnection of signal circuits by disconnect knife



Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 939120
GTIN	4017918939120

Technical data

Dimensions

Height	100 mm
Width	6.2 mm
Depth	63.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Altitude	max. 2000 m
Degree of protection	IP20

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	black
Standards for clearances and creepage distances	EN 60664-1

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Technical data

General

	IEC 60664-1
Overvoltage category	III
Degree of pollution	2
Mounting type	DIN rail: 35 mm
Type	Double-level terminal block
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous voltage U_C	30 V DC
	21 V AC
Rated current	350 mA (45 °C)
Operating effective current I_C at U_C	$\leq 10 \mu A$
Standby power consumption P_C	$\leq 1.94 VA$
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	5 kA
Nominal discharge current I_n (8/20) μs (line-earth)	5 kA
Pulse discharge current I_{imp} (10/350) μs	1 kA (per path)
Total discharge current I_{total} (8/20) μs	10 kA
Total discharge current I_{total} (10/350) μs	2 kA
Max. discharge current I_{max} (8/20) μs maximum (line-line)	5 kA
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	5 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	100 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	200 A (in total)
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 40 V$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 600 V$
Output voltage limitation at 1 kV/ μs (line-line) static	$\leq 40 V$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 600 V$
Residual voltage at I_n (line-line)	$\leq 40 V$
Voltage protection level U_p (line-line)	$\leq 60 V$ (C2 - 10 kV / 5 kA)
	$\leq 40 V$ (stat.)

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Protective circuit

Voltage protection level U_p (line-earth)	≤ 600 V (C2 - 10 kV / 5 kA)
Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 1 dB (400 kHz/50 Ω)
	typ. 0.4 dB (150 kHz / 150 Ω)
	typ. 0.1 dB (30 kHz/600 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	3 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	1 MHz
Cut-off frequency f_g (3 dB), sym. in 600 Ohm system	typ. 250 kHz
Capacity (line-line)	4 nF
Capacity (line-earth)	2 pF
Resistance per path	6.6 $\Omega \pm 20$ %
Surge protection fault message	none
Max. required back-up fuse	370 mA
Impulse durability (line-line)	C2 - 10 kV / 5 kA
	C3 - 100 A
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	D1 - 1 kA
	C3 - 100 A

Connection data

Connection method	Spring-cage connection
Connection method IN	Spring-cage
Connection method OUT	Spring-cage
Stripping length	8 mm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section solid	0.2 mm ² ... 4 mm ²
Conductor cross section AWG	24 ... 14

Standards and Regulations

Standards/specifications	IEC 61643-21/A1 2008
	EN 61643-21/A1 2009

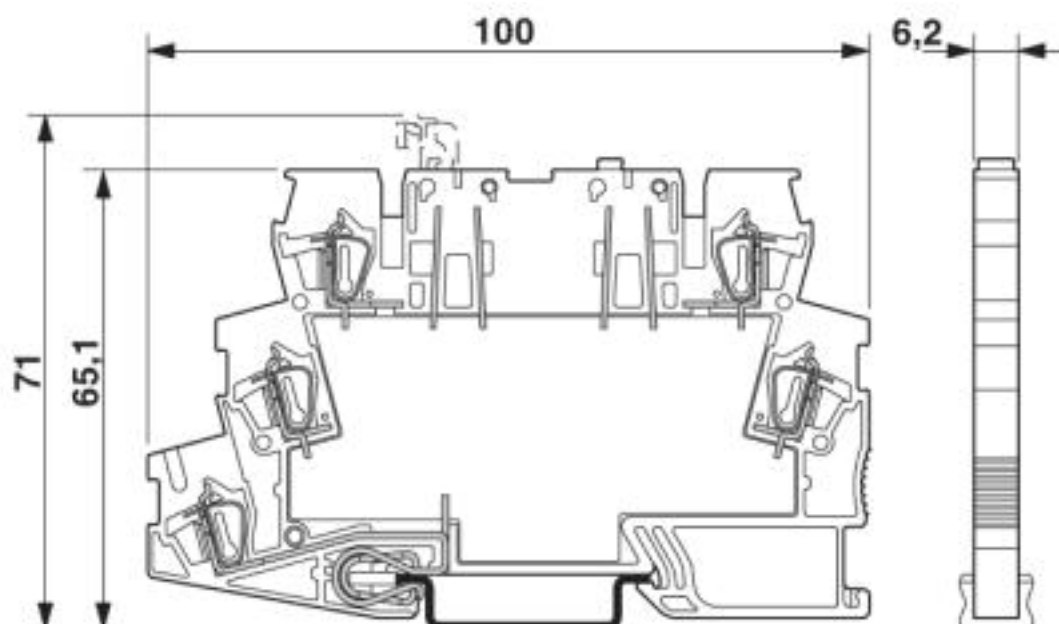
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

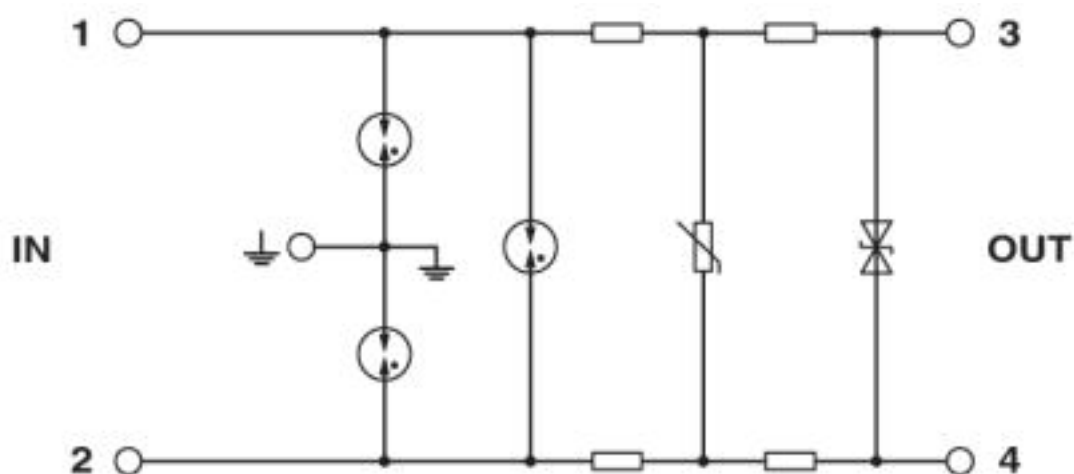
Drawings

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Dimensional drawing



Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807

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Classifications

eCl@ss

eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

DNV GL / UL Listed

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001N7
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
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Accessories

Accessories

End cover

End cover - TT-D-STTCO-BK - 2858894



End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black

Labeled terminal marker

Zack Marker strip, flat - ZBF 6,LGS:FORTL.ZAHLEN - 0808749



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, 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

Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Terminal marking

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, 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

Zack Marker strip, flat - ZBF 6/WH-100:UNBEDRUCKT - 0808736



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, 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

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Accessories

Additional products

End cover - TT-D-STTCO-BK - 2858894



End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>