

Surge protection device - TT-ST-2-PE/S1-24DC - 2801055

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Double-level modular terminal block with two-stage surge protection for one two-wire impedance-sensitive signal circuit, separate ground connection, nominal voltage: 24 V DC.



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356678704
Weight per Piece (excluding packing)	28.000 g
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	100 mm
Width	6.2 mm
Depth	63.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Altitude	max. 2000 m
Degree of protection	IP20

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0

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Technical data

General

Color	black
Standards for clearances and creepage distances	IEC 60664-1
Note on clearances and creepage distances	2007
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 (21 V AC)
Maximum continuous voltage U_C	30 V DC
	21 V AC
Rated current	350 mA
Operating effective current I_C at U_C	$\leq 1 \mu A$
Residual current I_{PE}	$\leq 1 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	300 A
Nominal discharge current I_n (8/20) μs (line-earth)	5 kA
Pulse discharge current I_{imp} (10/350) μs	500 A (per path)
Total discharge current I_{total} (8/20) μs	10 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	10 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	50 A
Output voltage limitation at 1 kV/ μs (line-line) static	$\leq 45 V$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 950 V$
Output voltage limitation at (8/20) μs (line-line)	$\leq 50 V$ (at 300 A)
Output voltage limitation at (8/20) μs (line-earth)	$\leq 950 V$ (at 5 kA)
Residual voltage at I_n (line-line)	$\leq 50 V$
Residual voltage at I_n (line-earth)	$\leq 950 V$
Voltage protection level U_p (line-line)	$\leq 50 V$ (C1 - 0,6 kV / 300 A)
	$\leq 45 V$ (C3 - 10 A)

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Technical data

Protective circuit

Voltage protection level U_p (line-earth)	≤ 950 V (C2 - 10 kV / 5 kA)
	≤ 950 V (C3 - 50 A)
Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.1 dB (500 kHz/50 Ω)
	typ. 0.1 dB (200 kHz/150 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
Capacity (line-line)	≤ 2 nF
Surge protection fault message	none
Max. required back-up fuse	370 mA
Impulse durability (line-line)	C1 - 0.6 kV / 300 A
	C3 - 10 A, 50 A
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	D1 - 500 A
Alternating current carrying capacity (line-earth)	5 A - 1 s (typical)

Connection data

Connection method	Spring-cage connection
Connection method IN	Spring-cage
Connection method OUT	Spring-cage
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 ... 12

Standards and Regulations

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

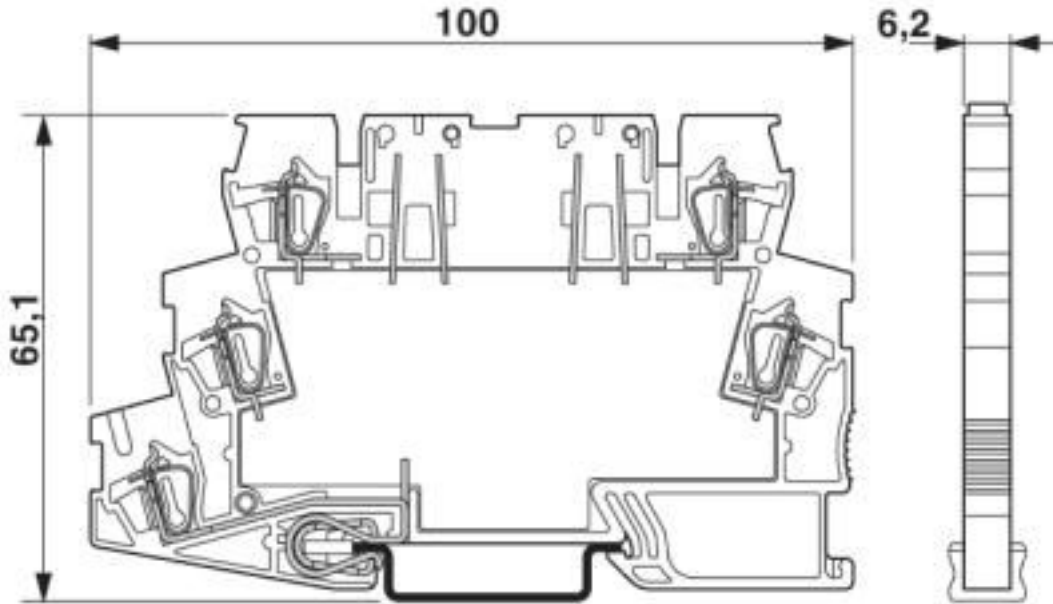
Environmental Product Compliance

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

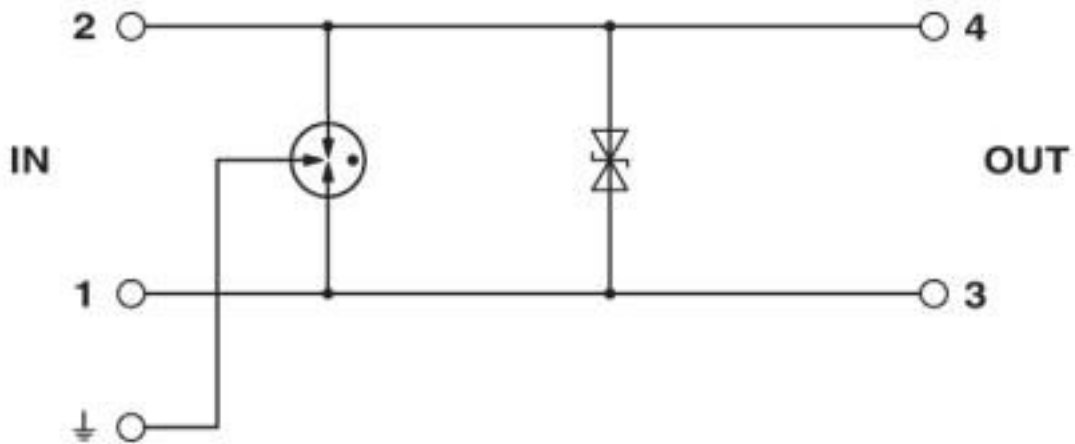
Drawings

Surge protection device - TT-ST-2-PE/S1-24DC - 2801055

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

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Classifications

eCl@ss

eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

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 / EAC

Ex Approvals


Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001N7
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Approvals

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
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EAC			RU C- DE.*09.B.00169
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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

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