

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

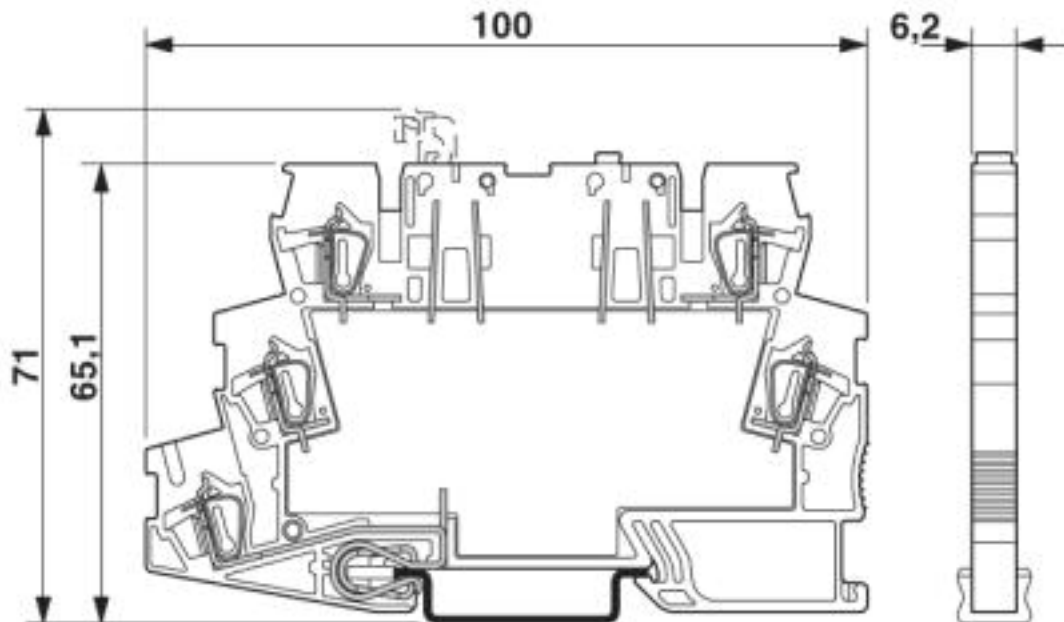
Environmental Product Compliance

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

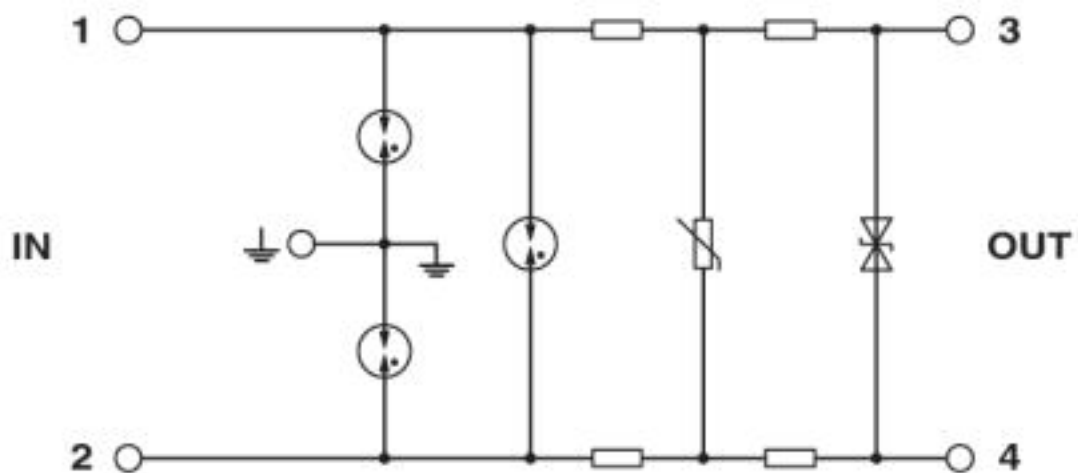
Drawings

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Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

DNV GL / UL Listed

Ex Approvals

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Approvals

Approval details

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

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