

Surge protection device - TT-2-PE- 24DC - 2838186

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Modular terminal block with three-stage surge protection for a floating double conductor, separate ground connection, nominal voltage: 24 V DC, for mounting on NS 35/7.5, terminal width: 6.2 mm, terminal height: 54,6 mm

Your advantages

- ✓ Versions with and without disconnect knife
- ✓ Protection of a floating double wire
- ✓ Protection of two signal wires with common reference potential
- ✓ Multi-stage modular terminal blocks with screw connection technology
- ✓ Disconnection of signal circuits by disconnect knife



Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 172855
GTIN	4017918172855

Technical data

Dimensions

Height	79.6 mm
Width	6.2 mm
Depth	54.6 mm

Ambient conditions

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

General

Housing material	PA 6.6
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Technical data

General

Flammability rating according to UL 94	V-0
Color	black
Standards for clearances and creepage distances	IEC 60664-1
Mounting type	DIN rail: 35 mm
Type	Double-level terminal block with PE foot – separate PE connection
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous voltage U_C	30 V DC
Rated current	300 mA (40 °C)
Operating effective current I_C at U_C	$\leq 10 \mu A$
Standby power consumption P_C	$\leq 730 \text{ mVA}$
Residual current I_{PE}	$\leq 1 \mu A$
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	500 A
Total discharge current I_{total} (8/20) μs	10 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	100 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	100 A
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 45 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 650 \text{ V}$
Voltage protection level U_p (line-line)	$\leq 70 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 55 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 45 \text{ V}$ (C3 - 10 A)
	$\leq 45 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p (line-earth)	$\leq 850 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 650 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 850 \text{ V}$ (C3 - 10 A)
	$\leq 900 \text{ V}$ (C3 - 100 A)
	$\leq 800 \text{ V}$ (D1 - 500 A)
Response time t_A (line-line)	$\leq 1 \text{ ns}$
Response time t_A (line-earth)	$\leq 100 \text{ ns}$
Input attenuation aE, sym.	typ. 0.6 dB ($\leq 500 \text{ kHz}$ / 50 Ω)
	typ. 0.3 dB ($\leq 160 \text{ kHz}$ / 150 Ω)

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Protective circuit

Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	typ. 3 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 1 MHz
Capacity (line-line)	≤ 4 nF
Resistance per path	3.7 Ω 10 %
Surge protection fault message	none
Max. required back-up fuse	315 mA (T/IEC 60127-2/3)
Impulse durability (line-line)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 500 A
Alternating current carrying capacity (line-line)	0.25 A / 1 s
Alternating current carrying capacity (line-earth)	0.25 A / 1 s
Pulse reset time (line-line)	≤ 400 ms, at U_c and 330 mA
Pulse reset time (line-earth)	≤ 400 ms, at U_c and 330 mA

Connection data

Connection method	Screw connection
Connection method IN	Screw terminal blocks
Connection method OUT	Screw terminal blocks
Screw thread	M3
Tightening torque	0.6 Nm
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 ... 12

Standards and Regulations

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

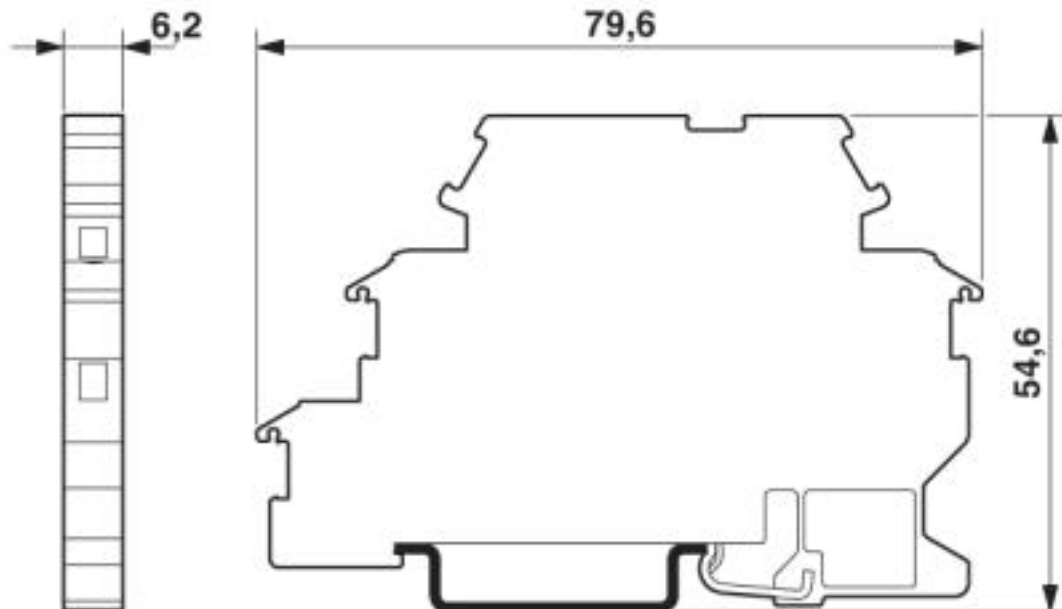
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

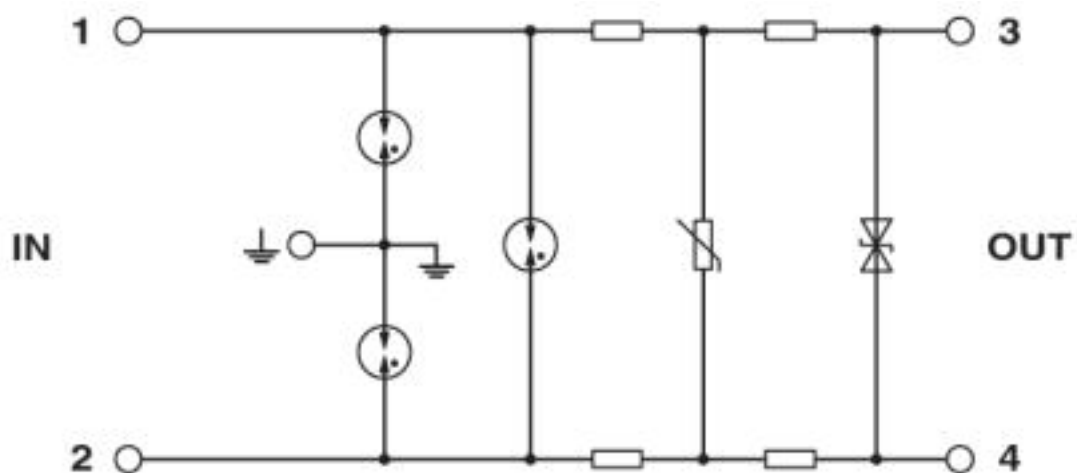
Drawings

Surge protection device - TT-2-PE- 24DC - 2838186

Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

DNV GL / UL Listed / EAC / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Surge protection device - TT-2-PE- 24DC - 2838186

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

EAC



EAC-Zulassung

EAC



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