

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

Why buy this product

- ✓ 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 STK
GTIN	 4 017918 172855
GTIN	4017918172855
Weight per Piece (excluding packing)	26.400 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	79.6 mm
	79.6 mm
Width	6.2 mm
Depth	54.6 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Degree of protection	IP20

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Technical data

General

Housing material	PA 6.6
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
Design	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 (Core-Core)	5 kA
Nominal discharge current I_n (8/20) μs (core-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 (Core-Core)	100 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	100 A
Output voltage limitation at 1 kV/ μs (core-core) spike	$\leq 45 \text{ V}$
Output voltage limitation at 1 kV/ μs (core-earth) spike	$\leq 650 \text{ V}$
Voltage protection level U_p (core-core)	$\leq 70 \text{ V}$ (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 (core-ground)	$\leq 850 \text{ V}$ (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 (core-core)	$\leq 1 \text{ ns}$
Response time t_A (core-earth)	$\leq 100 \text{ ns}$
Input attenuation a_E , sym.	typ. 0.6 dB ($\leq 500 \text{ kHz} / 50 \Omega$)
	typ. 0.3 dB ($\leq 160 \text{ kHz} / 150 \Omega$)

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Protective circuit

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

Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type 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

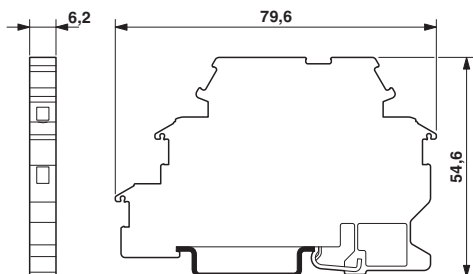
Environmental Product Compliance

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

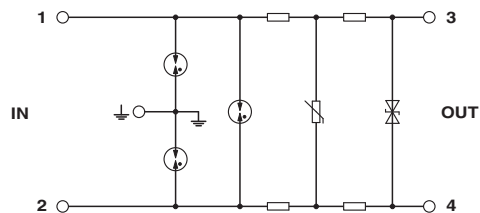
Drawings

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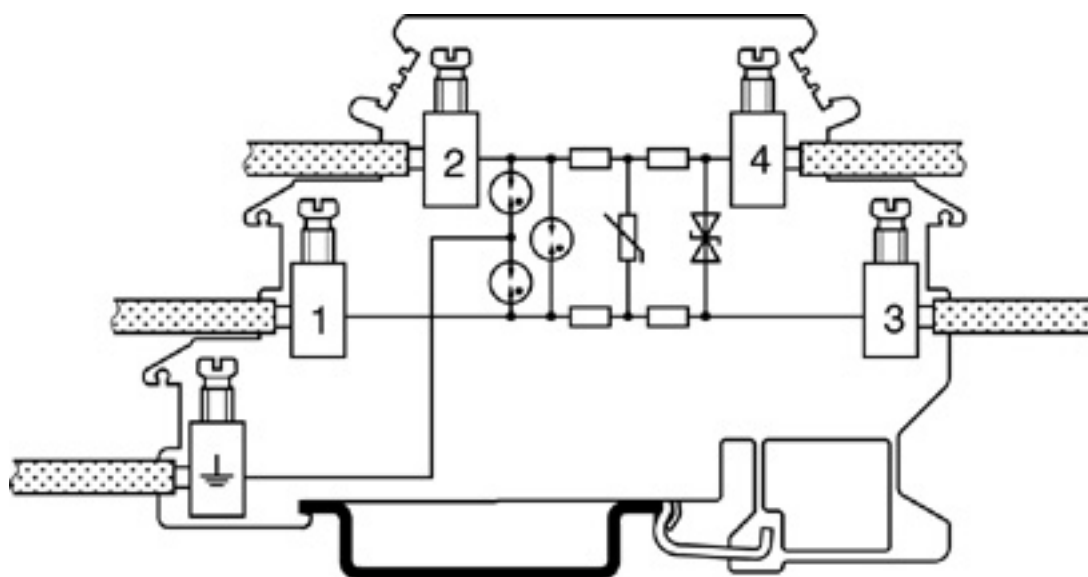
Dimensional drawing



Circuit diagram



Schematic diagram



Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
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

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Classifications

ETIM

ETIM 6.0	EC000943
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UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals

GL / UL Listed / EAC / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

GL		http://www.gl-group.com/newbuilding/approvals/index.html	36807-11 HH
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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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EAC			EAC-Zulassung
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EAC			7500651.22.01.00243
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Accessories

Accessories

End cover

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Accessories

End cover - D-DEK 1,5 BK - 2838995



Cover for setting the end of a TERMITRAB TT-2-PE... and TT-2/2 row of terminal blocks, 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: 5.15 x 6.15 mm

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: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

Additional products

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

Accessories

End cover - D-DEK 1,5 BK - 2838995



Cover for setting the end of a TERMITRAB TT-2-PE... and TT-2/2 row of terminal blocks, color: black

Shield connection - SSA 3-6 - 2839295



shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

Shield connection - SSA 5-10 - 2839512



Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black
