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

Product Features

- 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	1 pc
Weight per Piece (excluding packing)	28.0 g
Country of origin	Germany

Technical data

Dimensions

Height	79.6 mm
Width	6.2 mm
Depth	54.6 mm

Ambient conditions

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

General

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Technical data

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	black
Standards for cearances 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	≤ 10 µA
Standby power consumption P_C	≤ 730 mVA
Residual current I_{PE}	≤ 1 µA
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
Nominal pulse current Ian (10/1000) µs (Core-Core)	100 A
Nominal pulse current Ian (10/1000) µs (Core-Earth)	100 A
Output voltage limitation at 1 kV/µs (Core-Core) spike	≤ 45 V
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 650 V
Voltage protection level U_p (core-core)	≤ 70 V (C2 - 10 kV / 5 kA)
	≤ 55 V (C1 - 1 kV/500 A)
	≤ 45 V (C3 - 10 A)
	≤ 45 V (C3 - 100 A)
Voltage protection level U_p (core-ground)	≤ 850 V (C2 - 10 kV / 5 kA)
	≤ 650 V (C1 - 1 kV/500 A)
	≤ 850 V (C3 - 10 A)
	≤ 900 V (C3 - 100 A)
	≤ 800 V (D1 - 500 A)
Response time tA (Core-Core)	≤ 1 ns

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Protective circuit

Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.6 dB (≤ 500 kHz / 50 Ω)
	typ. 0.3 dB (≤ 160 kHz / 150 Ω)
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 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Standards and Regulations

Standards/regulations	IEC 61643-21
	EN 61643-21

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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

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

Approvals submitted

Approval details

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

Approvals

GL

UL Listed

EAC

EAC

Accessories

Accessories

End cover

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

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Accessories

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

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

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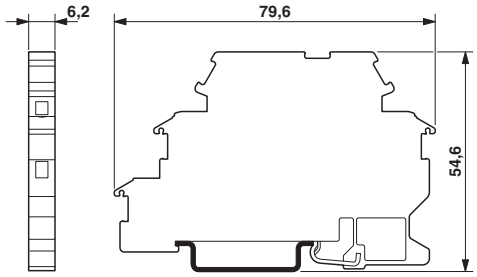
Accessories

Shield connection - SSA 5-10 - 2839512

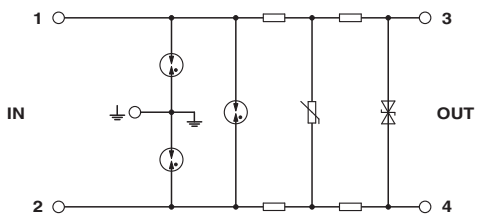
Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

Drawings

Dimensional drawing



Circuit diagram



Schematic diagram