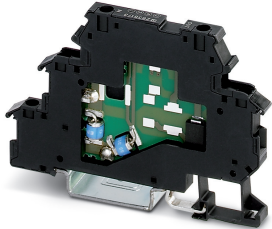


Surge protection device - TT-2-PE/S1- 24DC - 2839538

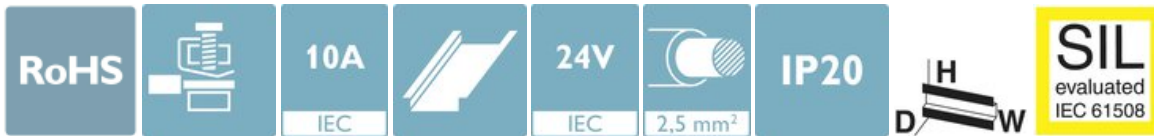
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Double-level modular terminal block with two-stage surge protection for one two-wire impedance-sensitive signal circuit, separate ground connection, nominal voltage: 24 V DC.

Your advantages

- Versions with and without disconnect knife
- Protection of a floating double wire in which the introduction of additional resistors for decoupling the protection stages leads to problems
- Multi-stage modular terminal blocks with screw connection technology
- Disconnection of signal circuits by disconnect knife



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 183189
GTIN	4017918183189
Weight per Piece (excluding packing)	28.000 g
Custom tariff number	85363010
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 ... 80 °C
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Surge protection device - TT-2-PE/S1- 24DC - 2839538

Technical data

Ambient conditions

Altitude	≤ 2000 m (amsl (above mean sea level))
Degree of protection	IP20 (with end cover)

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
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
	21 V AC
Rated current	10 A (40 °C)
Operating effective current I_C at U_C	≤ 1 μA
Residual current I_{PE}	≤ 1 μA
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 (line-earth)	500 A
Total discharge current I_{total} (8/20) μs	10 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	60 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	100 A
Output voltage limitation at 1 kV/μs (line-line) spike	≤ 45 V
Output voltage limitation at 1 kV/μs (line-earth) spike	≤ 700 V
Output voltage limitation at 1 kV/μs (line-line) static	≤ 45 V
Output voltage limitation at 1 kV/μs (line-earth) static	≤ 700 V
Voltage protection level U_p (line-line)	≤ 50 V (C1 - 500 V / 250 A)
	≤ 45 V (C3 - 10 A)
	≤ 50 V (C3 - 25 A)
Voltage protection level U_p (line-earth)	≤ 900 V (C2 - 10 kV / 5 kA)

Surge protection device - TT-2-PE/S1- 24DC - 2839538

Technical data

Protective circuit

	≤ 650 V (C1 - 1 kV / 500 A)
	≤ 850 V (C3 - 25 A)
	≤ 850 V (D1 - 500 A)
Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0 dB (≤ 1 MHz / 50 Ω)
	typ. 0 dB (≤ 200 kHz / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ω system	typ. 6 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 2.2 MHz
Capacity (line-line)	< 4 nF
Surge protection fault message	none
Max. required back-up fuse	10 A (T/IEC 60127-2/3)
Impulse durability (line-line)	C1 - 500 V / 250 A
	C3 - 25 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 25 A
	D1 - 500 A
Alternating current carrying capacity (line-line)	1 A - 1 s
Alternating current carrying capacity (line-earth)	1 A - 1 s

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 ... 14

Standards and Regulations

Standards/specifications	EN 61643-21 2001 + A1:2009
	IEC 61643-21 2000 + A1:2008

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years

Surge protection device - TT-2-PE/S1- 24DC - 2839538

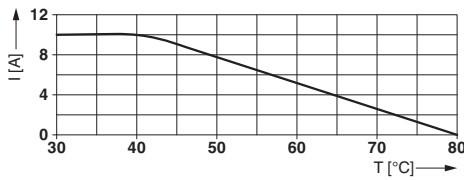
Technical data

Environmental Product Compliance

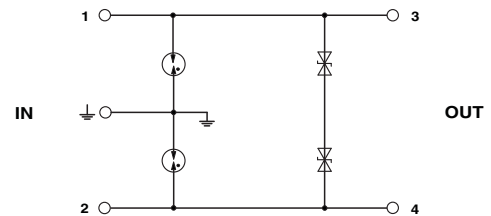
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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Drawings

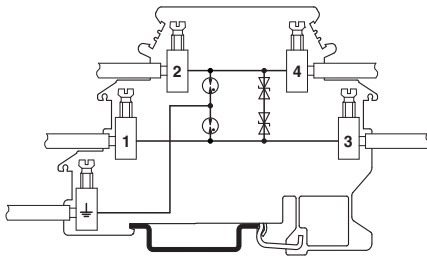
Diagram



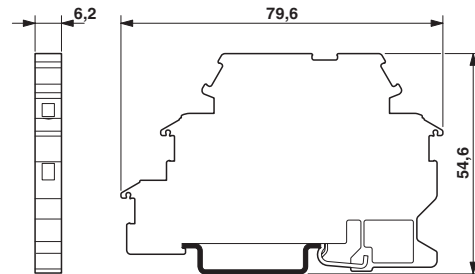
Circuit diagram



Schematic diagram



Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 11.0	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
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Surge protection device - TT-2-PE/S1- 24DC - 2839538

Classifications

ETIM

ETIM 3.0	EC000943
ETIM 4.0	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 / EAC

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001N7
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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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Surge protection device - TT-2-PE/S1- 24DC - 2839538

Approvals

EAC		EAC-Zulassung
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EAC		RU C- DE.*09.B.00169
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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 size: 5.15 x 6.15 mm, Number of individual labels: 10

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

Surge protection device - TT-2-PE/S1- 24DC - 2839538

Accessories

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 5.15 x 6.15 mm, Number of individual labels: 10

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 connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

