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
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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 cearances 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	≤ 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
Total discharge current I_{total} (8/20) µs	10 kA
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
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)

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

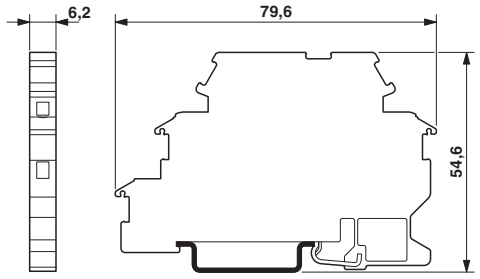
Environmental Product Compliance

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

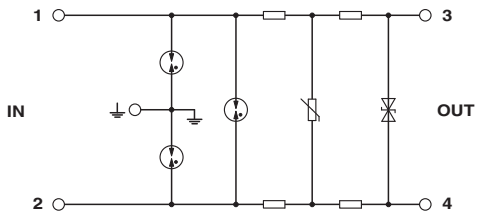
Drawings

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

Dimensional drawing



Circuit diagram



Approvals

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UL Listed / EAC / EAC / DNV GL

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
EAC			EAC-Zulassung
EAC			RU C-DE.A*30.B01561
DNV GL		http://exchange.dnv.com/tari/	TAE00001N7