

Surge protection device - S-PT1-2PE-24DC - 2818122

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Screw on module for conduit systems, with two conductor protection for a 2-core floating signal circuit. Design: 24 V DC



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 148355
Weight per Piece (excluding packing)	315.8 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	33 mm
Width	33 mm
Depth	120 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Degree of protection	IP40

General

Color	silver
Standards for clearances and creepage distances	VDE 0110-1
	IEC 60664-1
Mounting type	Connection-specific intermediate plugging
Type	Screw-in module

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Technical data

General

Number of positions	3
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	28 V DC
	20 V AC
Maximum continuous voltage U_C (wire-wire)	28 V DC
	20 V AC
Nominal current I_N	250 mA (25 °C)
Operating effective current I_C at U_C	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge current I_n (8/20) μs (Core-Core)	10 kA
Nominal discharge current I_n (8/20) μs (Core-Earth)	10 kA
Total surge current (8/20) μs	20 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Core)	10 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	180 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	180 A
Output voltage limitation at 1 kV/ μs (Core-Core) spike	$\leq 60 V$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 450 V$
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 60 V$
Residual voltage at I_n (conductor-conductor)	$\leq 40 V$
Residual voltage at I_n (conductor-ground)	$\leq 60 V$
Residual voltage with I_{an} (10/1000) μs (conductor-conductor)	$\leq 25 V$
Residual voltage with I_{an} (10/1000) μs (conductor-ground)	$\leq 20 V$
Voltage protection level U_p (core-core)	$\leq 55 V$
Voltage protection level U_p (core-ground)	$\leq 550 V$
Response time t_A (Core-Core)	$\leq 1 ns$
Response time t_A (Core-Earth)	$\leq 100 ns$
Input attenuation aE , sym.	$\leq 1.6 dB$ (up to 500 kHz, 50 Ω system)
	$\leq 0.6 dB$ (up to 200 kHz, 150 Ω system)
	$\leq 0.2 dB$ (up to 50 kHz, 600 Ω system)

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Protective circuit

Cut-off frequency fg (3 dB), sym. in 50 Ohm system	typ. 3.5 MHz
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 1.5 MHz
Cut-off frequency fg (3 dB), sym. in 600 Ohm system	typ. 400 kHz
Capacity (Core-Core)	typ. 1.5 nF
Resistance in series	10 Ω 5 %
Impulse durability (conductor-conductor)	C2 - 10 kV/5 kA
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA
	D1 - 2,5 kA
Alternating current carrying capacity (conductor-ground)	5 A - 1 s

Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	16

Standards and Regulations

Standards/regulations	IEC 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
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Classifications

ETIM

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

UL Listed / EAC

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

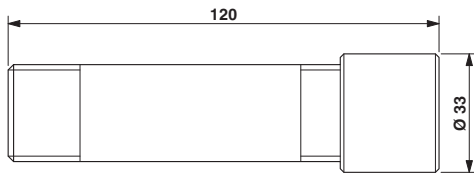
UL Listed 

EAC

Drawings

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Dimensional drawing



Circuit diagram

