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Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for one 2-wire floating signal circuit.

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	140.0 GRM
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	109.3 mm
Width	17.7 mm
Depth	77.5 mm
Horizontal pitch	1 Div.

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Color	black
Mounting type	DIN rail mounting
Type	DIN rail module, two-section, divisible

Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

Technical data

General

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating voltage U_C	30 V DC
	21 V AC
Nominal current I_N	1000 mA (up to 40 °C)
Operating effective current I_C at U_C	$\leq$ 1 mA (per system)
Residual current I_{PE}	$\leq$ 2 µA (per system)
Nominal discharge current I_n (8/20) µs (Core-Core)	10 kA
Nominal discharge current I_n (8/20) µs (Core-Earth)	10 kA
Impulse discharge current (10/350)#µs, peak value I_{imp}	2.5 kA
Voltage protection level U_P (Core-Core)	$\leq$ 80 V (C1 - 1 kV/500 A)
	$\leq$ 130 V (C2 - 10 kV / 5 kA)
	$\leq$ 55 V (C3 - 25 A)
Voltage protection level U_P (Core-Earth)	$\leq$ 600 V (C1 - 1 kV/500 A)
	$\leq$ 750 V (C2 - 10 kV / 5 kA)
	$\leq$ 700 V (C3 - 25 A)
Voltage protection level U_P static (core-core)	$\leq$ 65 V (C1 - 1 kV/500 A)
Voltage protection level U_P static (core-ground)	$\leq$ 60 V (C2 - 10 kV / 5 kA)
	$\leq$ 40 V (C3 - 25 A)
Response time tA (Core-Core)	$\leq$ 1 ns
Response time tA (Core-Earth)	$\leq$ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB ($\leq$ 270 kHz/150 Ω)
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 1.1 MHz
Capacity (Core-Core)	typ. 2 nF
Resistance in series	1.2 Ω ±5 % (per path)
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	1 A (FF)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C3 - 25 A
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 - 10 kA
	D1 - 2,5 kA

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Technical data

Protective circuit

	C3 - 25 A
Pulse reset time tr in acc. with IEC 61643-21 (Core-Core)	≤ 4000 ms
Pulse reset time tr in acc. with IEC 61643-21 (Core-Earth)	≤ 2600 ms
Overload failure mode as per IEC 61643-21 (plug)	2

Connection data

Connection method	Push-in connection
Connection type IN	Push-in connection
Connection type OUT	Push-in connection
Stripping length	10 mm
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

Connection, equipotential bonding

Connection method	NS 35 DIN rail or connection terminal block

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

ETIM

ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610

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Classifications

UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals
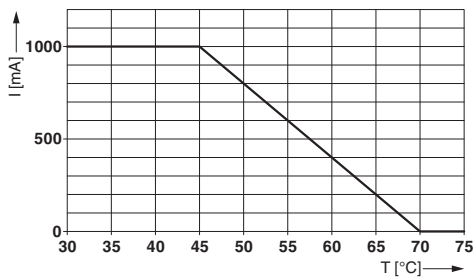
UL Listed

Ex Approvals

Approvals submitted
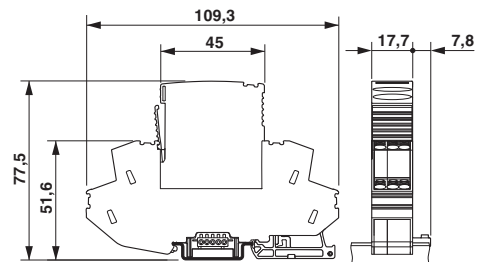
Approval details

UL Listed

Drawings

Diagram

Dimensioned drawing

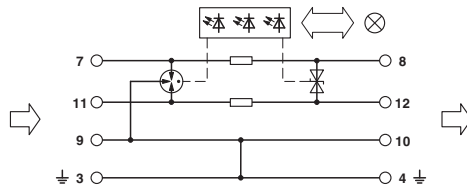# Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

Circuit diagram

Application drawing