

Surge protection device - PT-IQ-2X1+F-48DC-PT - 2801250

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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two signal wires with common reference potential. Indirect grounding via gas-filled surge arrester.

The figure shows the PT-IQ-1x2-24DC-PT version



Key commercial data

Packing unit	1 pc
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
Type	DIN rail module, two-section, divisible

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Technical data

General

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

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	48 V DC
Maximum continuous operating voltage U_C	53 V DC
	37 V AC
Nominal current I_N	300 mA (up to 70°C)
Operating effective current I_C at U_C	$\leq 6 \mu\text{A}$ (per path)
Residual current I_{PE}	$\leq 1 \mu\text{A}$
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-Earth)	$\leq 750 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 950 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 850 \text{ V}$ (C3 - 25 A)
Voltage protection level U_p (Core-GND)	$\leq 105 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 160 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 90 \text{ V}$ (C3 - 25 A)
Voltage protection level U_p static (core-ground)	$\leq 200 \text{ V}$ (C2 - 10 kV / 5 kA)
Response time t_A (Core-Earth)	$\leq 1 \text{ ns}$
	$\leq 100 \text{ ns}$
Input attenuation a_E , asym.	typ. 0.3 dB ($\leq 530 \text{ kHz}/150 \Omega$)
Cut-off frequency f_g (3 dB), asym. (GND) in 150 Ohm system	typ. 1.9 MHz
Capacity (Core-GND)	typ. 1.5 nF
Resistance in series	1.2 $\Omega \pm 5 \%$
Surge protection fault message	Optical, multi-stage
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C1 (1 kV / 500 A)
	C2 - 10 kA
	D1 - 2,5 kA
	C3 - 25 A
Surge carrying capacity in acc. with IEC 61643-21 (Core-GND)	C2 - 10 kA
	C3 - 25 A
Pulse reset time t_r in acc. with IEC 61643-21 (Core-Earth)	$\leq 250 \text{ ms}$
Pulse reset time t_r in acc. with IEC 61643-21 (Core-GND)	$\leq 1500 \text{ ms}$

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Technical data

Protective circuit

Overload failure mode as per IEC 61643-21 (plug)	Mode 2
Overload failure mode as per IEC 61643-21 (GND-Ground base element)	Mode 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 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
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
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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

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

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Classifications

UNSPSC

UNSPSC 13.2	39121620
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Approvals

Approvals

Approvals

UL Listed

Ex Approvals

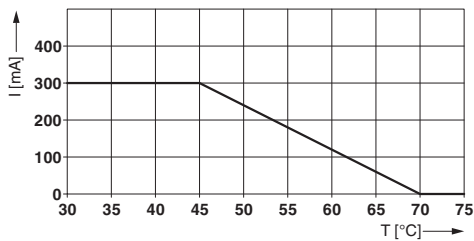
Approvals submitted

Approval details

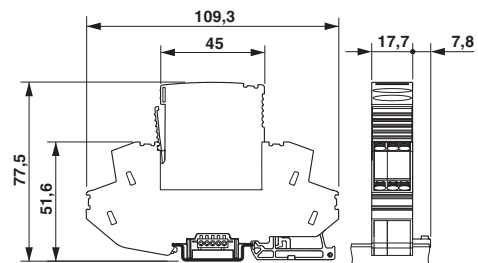
UL Listed

Drawings

Diagram



Dimensioned drawing



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Circuit diagram

