

Surge protection device - PT-IQ-2X2+F-5DC-PT - 2801260

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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two 2-wire floating signal circuits. Indirect grounding via gas-filled surge arrester.

The figure shows the PT-IQ-2x2-24DC-PT version



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	160.0 GRM
Custom tariff number	85363010
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	V-0
Color	jet black RAL 9005
Mounting type	DIN rail: 35 mm

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Technical data

General

Type	DIN rail module, two-section, divisible
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	5 V DC
Maximum continuous voltage U_C	6 V DC
	4 V AC
Nominal current I_N	700 mA (50 °C)
Operating effective current I_C at U_C	≤ 2 mA (in the signal circuit)
Residual current I_{PE}	≤ 1 μ A
Nominal discharge current I_n (8/20) μ s (Core-Core)	5 kA
	10 kA
Nominal discharge current I_n (8/20) μ s (Core-Earth)	5 kA
	10 kA
Nominal discharge current I_n (8/20) μ s (Core-GND)	5 kA
	10 kA
Pulse discharge current I_{imp} (10/350) μ s (core-ground)	2.5 kA
Pulse discharge current I_{imp} (10/350) μ s (core-GND)	2.5 kA
Impulse discharge current (10/350) μ s, peak value I_{imp}	2.5 kA
Voltage protection level U_p (core-core)	≤ 85 V (C1 - 1 kV/500 A)
	≤ 110 V (C2 - 10 kV / 5 kA)
	≤ 25 V (C3 - 25 A)
	≤ 25 V (C3 - 50 A)
Voltage protection level U_p (core-ground)	≤ 900 V (C1 - 1 kV/500 A)
	≤ 1300 V (C2 - 10 kV / 5 kA)
	≤ 1000 V (C3 - 25 A)
	≤ 1300 V (C3 - 100 A)
Voltage protection level U_p (core-GND)	≤ 600 V (C1 - 1 kV/500 A)
	≤ 750 V (C2 - 10 kV / 5 kA)
	≤ 700 V (C3 - 25 A)
	≤ 800 V (C3 - 100 A)
Voltage protection level U_p static (core-core)	≤ 26 V (C1 - 1 kV/500 A)

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Protective circuit

	≤ 70 V (C2 - 10 kV / 5 kA)
Response time tA (Core-Core)	≤ 1 ns
Response time tA (Core-Earth)	≤ 100 ns
	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (≤ 40 kHz/150 Ω)
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 300 kHz
Capacity (Core-Core)	typ. 7.5 nF
Resistance in series	1.2 $\Omega \pm 5$ %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	800 mA (FF)
Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 5 kA
	C3 - 50 A
Impulse durability (conductor-ground)	C1 (1 kV / 500 A)
	C2 - 10 kV/5 kA
	C2 - 5 kA
	C3 - 100 A
	D1 - 2,5 kA
Impulse durability (conductor-GND)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 5 kA
	C3 - 100 A
	D1 - 2.5 kA
Pulse reset time (conductor-conductor)	≤ 10 ms
Pulse reset time (conductor-ground)	≤ 10 ms
Pulse reset time (conductor-GND)	≤ 10 ms

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 flexible min.	0.2 mm ²
Conductor cross section flexible 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 min.	24

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Connection data

Conductor cross section AWG max.	12
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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

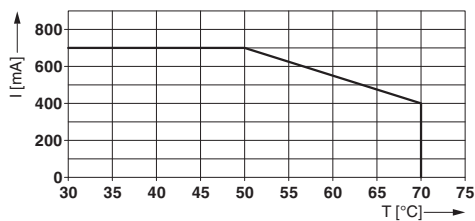
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

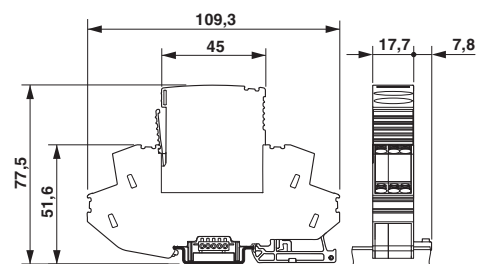
UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Drawings

Diagram



Dimensional drawing



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Circuit diagram

