

Surge protection device - PT-IQ-4X1+F-5DC-UT - 2801216

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

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



Key commercial data

Packing unit	1 pc
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	91.1 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

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Technical data

General

Mounting type	DIN rail mounting
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
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 (per path)
Residual current I_{PE}	≤ 1 μA
Nominal discharge current I_n (8/20) μs (Core-Earth)	10 kA
Total surge current (8/20) μs	20 kA
Impulse discharge current (10/350) μs, peak value I_{imp}	2.5 kA
Voltage protection level U_p (core-ground)	≤ 720 V (C1 - 1 kV/500 A)
	≤ 870 V (C2 - 10 kV / 5 kA)
	≤ 1000 V (C3 - 25 A)
	≤ 950 V (C3 - 50 A)
Voltage protection level U_p (core-GND)	≤ 120 V (C1 - 1 kV/500 A)
	≤ 150 V (C2 - 10 kV / 5 kA)
	≤ 25 V (C3 - 25 A)
	≤ 25 V (C3 - 50 A)
Response time t_A (Core-Earth)	≤ 1 ns
	≤ 100 ns
Input attenuation a_E , asym.	typ. 0.3 dB (≤ 45 kHz)
Cut-off frequency f_g (3 dB), asym. (PE) in 150 Ohm system	typ. 300 kHz
Capacity (Core-Earth)	7.5 nF
Resistance in series	1.2 Ω ±5 %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	800 mA (FF)
Impulse durability (conductor-ground)	C1 (1 kV / 500 A)
	C2 (10 kV / 5 kA)
	C2 (10 kA)

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Protective circuit

	C3 (25 A)
	C3 (50 A)
	D1 - 2,5 kA
Impulse durability (conductor-GND)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 25 A
	C3 - 50 A
Pulse reset time (conductor-ground)	≤ 10 ms
Pulse reset time (conductor-GND)	≤ 10 ms
Overload failure mode (connector)	Mode 2
Overload failure mode (GND-ground base element)	Mode 2

Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 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
Conductor cross section AWG 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

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Classifications

eCl@ss

eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

ETIM

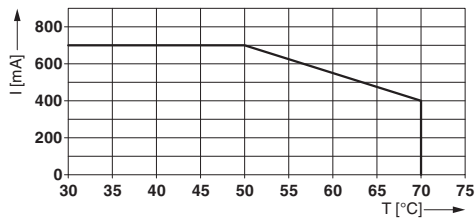
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

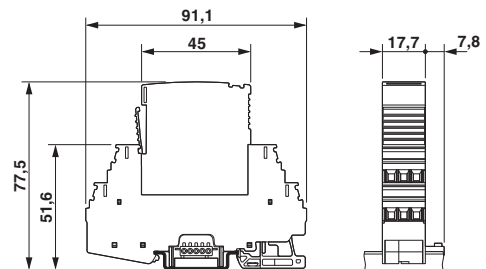
UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Drawings

Diagram



Dimensional drawing



Circuit diagram

