

Surge protection device - PT-IQ-2X2-EX-24DC-UT - 2801513

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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 Ex-i signal circuits.

Product Features



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	154.0 GRM
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
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Technical data

General

Inflammability class according to UL 94	V0
Color	black
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	24 V DC
Maximum continuous voltage U_C	30 V DC
	21 V AC
Nominal current I_N	350 mA
Operating effective current I_C at U_C	$\leq 5 \mu\text{A}$ (per system)
Residual current I_{PE}	$\leq 100 \text{ nA}$ (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
Pulse discharge current I_{imp} (10/350) μs (core-ground)	2 kA
Total surge current (8/20) μs	20 kA
Impulse discharge current (10/350) μs , peak value I_{imp}	2 kA
Voltage protection level U_p (core-core)	$\leq 60 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 110 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 140 \text{ V}$ (C2 - 10 kA)
	$\leq 50 \text{ V}$ (C3 - 25 A)
	$\leq 55 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p (core-ground)	$\leq 1.3 \text{ kV}$ (C2 - 10 kV / 5 kA)
	$\leq 1.5 \text{ kV}$ (C2 - 10 kA)
	$\leq 1.3 \text{ kV}$ (C3 - 100 A)
Response time t_A (Core-Core)	$\leq 1 \text{ ns}$
Response time t_A (Core-Earth)	$\leq 100 \text{ ns}$
Input attenuation a_E , sym.	typ. 0.3 dB ($\leq 300 \text{ kHz} / 150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 1.1 MHz
Capacity (Core-Earth)	typ. 2 nF
Resistance in series	1.2 $\Omega \pm 5 \%$

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Protective circuit

Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	350 mA (F)
Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kA
	C3 - 100 A
Impulse durability (conductor-ground)	C2 - 10 kA
	D1 - 2 kA
Pulse reset time (conductor-conductor)	≤ 30 ms
Pulse reset time (conductor-ground)	≤ 30 ms

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 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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Remote indicator contact

Switching function	Via TBUS
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General

Maximum inner capacitance C_i	negligible
Maximum inner inductance L_i	negligible
Max. input current I_i	350 mA
Max. input voltage U_i	30 V DC
Maximum input power P_i	1.2 W
Insulation voltage to ground	> 500 V AC
Standards/specifications	EN 60079-0 2012
	EN 60079-11 2012
	EN 60079-15 2010
	IEC 60079-0 2012

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General

	IEC 60079-11 2012
	IEC 60079-15 2010
Ambient temperature (operation)	-40 °C ... 50 °C (T6)
	-40 °C ... 70 °C (T4)

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

Circuit diagram



