

Surge protection device - PT-IQ-1X2-5DC-UT - 2800791

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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.

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

Product Features

- Surge protection system
- Multi-level state monitoring
- Collective message about supply and remote module
- System supplied via DIN rail bus
- Up to 28 protection modules per supply module
- Maximum ease of maintenance thanks to the two-piece design
- Codable plug
- Impedance-neutral disconnection of plug for maintenance purposes
- Base element remains an integral part of the installation



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	134.4 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	91.1 mm
Width	17.7 mm

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Technical data

Dimensions

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
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground

Additional descriptions

Note	Remote signaling as well as the power supply of the T-BUS are established by snapping the module onto the T-BUS.
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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	1000 mA (40°C)
Operating effective current I_C at U_C	≤ 2 mA (in the signal circuit)
Residual current I_{PE}	≤ 2 μA (per signal circuit)
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)	2.5 kA
Impulse discharge current (10/350) μs, 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)
	≤ 140 V (C2 - 10 kA)
	≤ 25 V (C3 - 25 A)

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Protective circuit

	$\leq 25 \text{ V (C3 - 50 A)}$
Voltage protection level U_p (core-ground)	$\leq 600 \text{ V (C1 - 1 kV/500 A)}$
	$\leq 750 \text{ V (C2 - 10 kV / 5 kA)}$
	$\leq 800 \text{ V (C2 - 10 kA)}$
	$\leq 700 \text{ V (C3 - 25 A)}$
	$\leq 800 \text{ V (C3 - 100 A)}$
Voltage protection level U_p static (core-core)	$\leq 26 \text{ V (C1 - 1 kV/500 A)}$
	$\leq 70 \text{ V (C2 - 10 kV / 5 kA)}$
	$\leq 30 \text{ V (C2 - 10 kA)}$
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. $0.3 \text{ dB } (\leq 40 \text{ kHz/150 } \Omega)$
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 300 kHz
Capacity (Core-Earth)	typ. 7.5 nF
Resistance in series	$1.2 \Omega \pm 5 \%$
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	1 A (FF)
Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
Impulse durability (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 100 A
	D1 - 2,5 kA
Pulse reset time (conductor-conductor)	$\leq 10 \text{ ms}$
Pulse reset time (conductor-ground)	$\leq 10 \text{ ms}$

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 flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²

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Connection data

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
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	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

Approvals

Approvals

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UL Listed / EAC / CSA / CSAus / cCSAus

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Approvals

Ex Approvals

Approvals submitted

Approval details

UL Listed

EAC

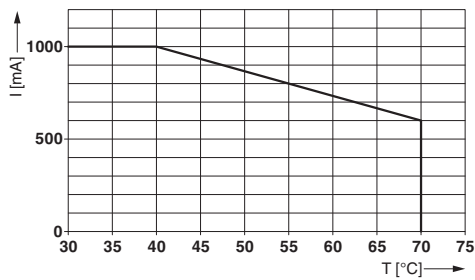
CSA

CSAus

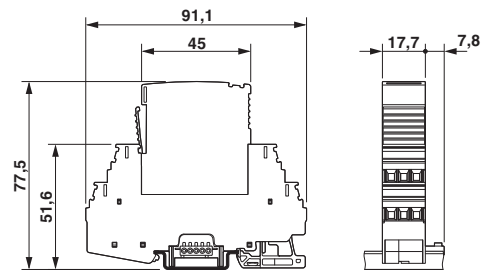
cCSAus

Drawings

Diagram



Dimensional drawing



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Circuit diagram

