

Surge protection device - PT-IQ-2X1+F-48DC-UT - 2800790

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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-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)	0.14 g
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	91.1 mm
Width	17.7 mm

Surge protection device - PT-IQ-2X1+F-48DC-UT - 2800790

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.
------	--

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	48 V DC
Maximum continuous voltage U_C	53 V DC
	37 V AC
Nominal current I_N	300 mA
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
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-ground)	$\leq 750 \text{ V}$ (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)

Surge protection device - PT-IQ-2X1+F-48DC-UT - 2800790

Technical data

Protective circuit

	≤ 90 V (C3 - 25 A)
Voltage protection level U_p , static (core-ground)	≤ 200 V (C2 - 10 kV / 5 kA)
Response time t_A (Core-Earth)	≤ 1 ns
	≤ 100 ns
Input attenuation a_E , asym.	typ. 0.3 dB (≤ 530 kHz/150 Ω)
Cut-off frequency f_g (3 dB), asym. (GND) in 150 Ohm system	typ. 1.9 MHz
Capacity (Core-Earth)	typ. 1.5 nF
Resistance in series	1.2 Ω ±5 %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	315 mA (FF)
Impulse durability (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 25 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
	D1 - 2.5 kA
Pulse reset time (conductor-ground)	≤ 250 ms
Pulse reset time (conductor-GND)	≤ 1500 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
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

Surge protection device - PT-IQ-2X1+F-48DC-UT - 2800790

Technical data

Connection, equipotential bonding

Connection method	NS 35 DIN rail or connection terminal block
-------------------	---

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

Approvals

UL Listed / EAC / CSA / CSAus / cCSAus

Ex Approvals

Approvals submitted

Surge protection device - PT-IQ-2X1+F-48DC-UT - 2800790

Approvals

Approval details

UL Listed

EAC

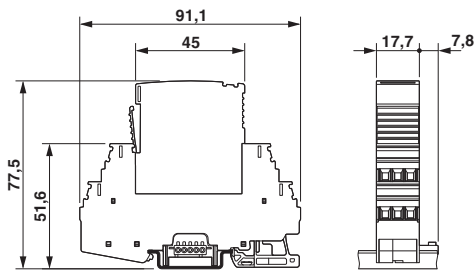
CSA

CSAus

cCSAus

Drawings

Dimensional drawing



Circuit diagram

