

## Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

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 2-wire floating signal circuits. Indirect grounding via gas-filled surge arrester.

The figure shows the PT-IQ-2x2-24DC-PT 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)	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.

## Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

### Technical data

#### 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
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 $U_N$	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 $U_C$	$\leq 5 \mu\text{A}$ (per system)
Residual current $I_{PE}$	$\leq 1 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Core)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Earth)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-GND)	10 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (core-ground)	2.5 kA
Impulse discharge current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	2.5 kA
Voltage protection level $U_p$ (core-core)	$\leq 100 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 150 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 90 \text{ V}$ (C3 - 25 A)
	$\leq 95 \text{ V}$ (C3 - 100 A)
Voltage protection level $U_p$ (core-ground)	$\leq 900 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 1300 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 1000 \text{ V}$ (C3 - 25 A)
	$\leq 1300 \text{ V}$ (C3 - 100 A)
Voltage protection level $U_p$ (core-GND)	$\leq 600 \text{ V}$ (C1 - 1 kV/500 A)

## Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

### Technical data

#### Protective circuit

	≤ 750 V (C2 - 10 kV / 5 kA)
	≤ 700 V (C3 - 25 A)
	≤ 800 V (C3 - 100 A)
Voltage protection level $U_p$ static (core-ground)	≤ 130 V (C2 - 10 kV / 5 kA)
	≤ 60 V (C3 - 25 A)
Voltage protection level $U_p$ static (core-GND)	≤ 60 V (C2 - 10 kV / 5 kA)
	≤ 40 V (C3 - 25 A)
	≤ 100 V (C3 - 100 A)
Response time $t_A$ (Core-Core)	≤ 1 ns
Response time $t_A$ (Core-Earth)	≤ 100 ns
	≤ 100 ns
Input attenuation $a_E$ , sym.	typ. 0.3 dB (≤ 450 kHz/150 Ω)
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 1.9 MHz
Capacity (Core-Core)	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-conductor)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 100 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
Impulse durability (conductor-GND)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 100 A
Pulse reset time (conductor-conductor)	≤ 300 ms
Pulse reset time (conductor-ground)	≤ 30 ms
Pulse reset time (conductor-GND)	≤ 4000 ms

#### Connection data

Connection method	Push-in connection
Connection type IN	Push-in connection
Connection type OUT	Push-in connection

## Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

### Technical data

#### Connection data

Stripping length	10 mm
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
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
-------------------	---

### 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

### Approvals

#### Approvals

# Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

## Approvals

Approvals

UL Listed / EAC / CSA / CSAus / cCSAus

Ex Approvals

Approvals submitted

## Approval details

UL Listed

EAC

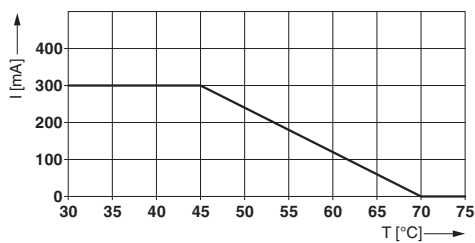
CSA

CSAus

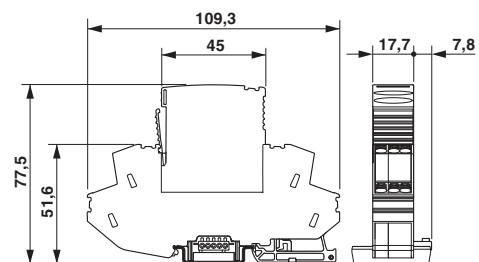
cCSAus

## Drawings

Diagram



Dimensional drawing



# Surge protection device - PT-IQ-2X2+F-48DC-PT - 2801266

Circuit diagram

