

## Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

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 one 2-wire floating signal circuit.



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	140.0 GRM
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### Dimensions

Height	109.3 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
Mounting type	DIN rail mounting
Type	DIN rail module, two-section, divisible

# Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

## Technical data

### General

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 operating voltage $U_C$	30 V DC
	21 V AC
Nominal current $I_N$	1000 mA (up to 40 °C)
Operating effective current $I_C$ at $U_C$	$\leq 1$ mA (per system)
Residual current $I_{PE}$	$\leq 2$ $\mu$ A (per system)
Nominal discharge current $I_n$ (8/20) $\mu$ s (Core-Core)	10 kA
Nominal discharge current $I_n$ (8/20) $\mu$ s (Core-Earth)	10 kA
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	2.5 kA
Voltage protection level $U_p$ (Core-Core)	$\leq 80$ V (C1 - 1 kV/500 A)
	$\leq 130$ V (C2 - 10 kV / 5 kA)
	$\leq 55$ V (C3 - 25 A)
Voltage protection level $U_p$ (Core-Earth)	$\leq 600$ V (C1 - 1 kV/500 A)
	$\leq 750$ V (C2 - 10 kV / 5 kA)
	$\leq 700$ V (C3 - 25 A)
Voltage protection level $U_p$ static (core-core)	$\leq 65$ V (C1 - 1 kV/500 A)
Voltage protection level $U_p$ static (core-ground)	$\leq 60$ V (C2 - 10 kV / 5 kA)
	$\leq 40$ V (C3 - 25 A)
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Input attenuation $a_E$ , sym.	typ. 0.3 dB ( $\leq 270$ kHz/150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. 1.1 MHz
Capacity (Core-Core)	typ. 2 nF
Resistance in series	1.2 $\Omega$ $\pm 5$ % (per path)
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	1 A (FF)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C3 - 25 A
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 - 10 kA
	D1 - 2,5 kA

# Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

## Technical data

### Protective circuit

	C3 - 25 A
Pulse reset time $t_r$ in acc. with IEC 61643-21 (Core-Core)	$\leq 4000$ ms
Pulse reset time $t_r$ in acc. with IEC 61643-21 (Core-Earth)	$\leq 2600$ ms
Overload failure mode as per IEC 61643-21 (plug)	2

### Connection data

Connection method	Push-in connection
Connection type IN	Push-in connection
Connection type OUT	Push-in connection
Stripping length	10 mm
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded 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/kcmil min.	24
Conductor cross section AWG/kcmil 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

# Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

## Classifications

### UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

### Approvals

Approvals

UL Listed

Ex Approvals

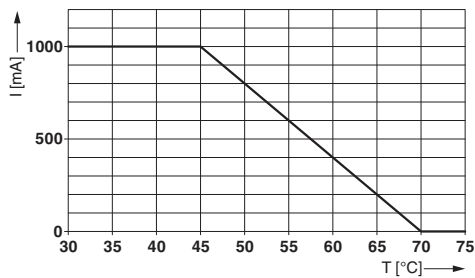
Approvals submitted

### Approval details

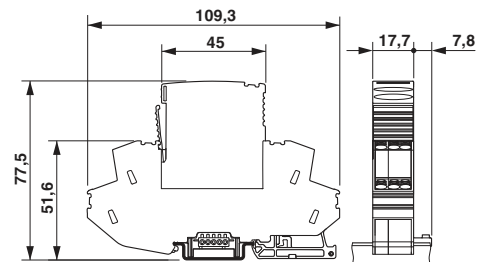
UL Listed

## Drawings

Diagram

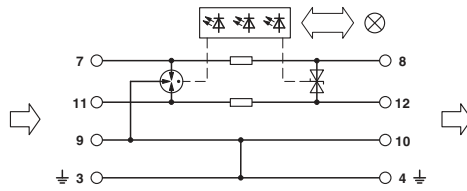


Dimensioned drawing



# Surge protection device - PT-IQ-1X2-24DC-PT - 2801255

Circuit diagram



Application drawing

