

## Surge protection device - PT-IQ-2X2-48DC-UT - 2800986

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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 signal circuits.

### Your advantages

- ✓ 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
GTIN	 4 046356 665742
GTIN	4046356665742

### Technical data

#### Dimensions

Height	91.1 mm
Width	17.7 mm
Depth	77.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
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## Technical data

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m (amsl (above mean sea level))
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 DIN rail connector are established by snapping the module into place on the DIN rail connector.
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### 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
Rated current	300 mA
Operating effective current $I_C$ at $U_C$	≤ 5 μA (in the signal circuit)
Residual current $I_{PE}$	≤ 2 μA (per signal circuit)
Nominal discharge current $I_n$ (8/20) μs (line-line)	10 kA
Nominal discharge current $I_n$ (8/20) μs (line-earth)	10 kA
Pulse discharge current $I_{imp}$ (10/350) μs (line-earth)	2.5 kA
Total discharge current $I_{total}$ (8/20) μs	20 kA
Voltage protection level $U_p$ (line-line)	≤ 100 V (C1 - 1 kV/500 A)
	≤ 150 V (C2 - 10 kV / 5 kA)
	≤ 170 V (C2 - 10 kA)
	≤ 90 V (C3 - 25 A)
	≤ 95 V (C3 - 100 A)
Voltage protection level $U_p$ (line-earth)	≤ 600 V (C1 - 1 kV/500 A)
	≤ 750 V (C2 - 10 kV / 5 kA)
	≤ 800 V (C2 - 10 kA)
	≤ 700 V (C3 - 25 A)

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## Technical data

### Protective circuit

	≤ 800 V (C3 - 100 A)
Voltage protection level $U_p$ static (line-line)	≤ 85 V (C2 - 10 kA)
Response time $t_A$ (line-line)	≤ 1 ns
Response time $t_A$ (line-earth)	≤ 100 ns
Input attenuation aE, 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 (line-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 (line-line)	C1 - 1 kV/500 A C2 - 10 kV/5 kA C2 - 10 kA C3 - 100 A
Impulse durability (line-earth)	C1 - 1 kV/500 A C2 - 10 kV/5 kA C2 - 10 kA C3 - 100 A D1 - 2.5 kA
Pulse reset time (line-line)	≤ 300 ms
Pulse reset time (line-earth)	≤ 4000 ms

### Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 mm
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

### Connection, equipotential bonding

Connection method	DIN rail NS35
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### Standards and Regulations

Standards/specifications	IEC 61643-21 2000 + A1:2008, modified
	EN 61643-21 2001 + A1:2009 + A2:2013
	EN 61000-6-3 2007 + A1:2011
	EN 61000-6-2 2005

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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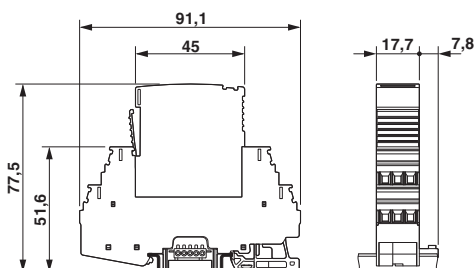
# Surge protection device - PT-IQ-2X2-48DC-UT - 2800986

## Drawings

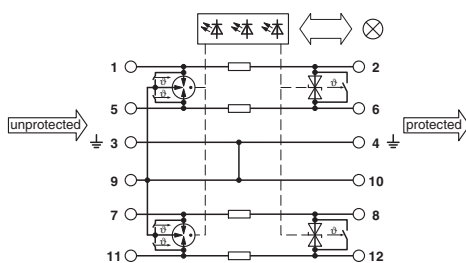
Pictogram



Dimensional drawing



Circuit diagram



## Approvals

Approvals

Approvals

UL Listed / EAC / CSA / CSAus / cCSAus

Ex Approvals

## Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm</a>	FILE E 138168
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EAC			RU C- DE.A*30.B01561
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	2761632
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### Approvals

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