Surge protection device - PT-IQ-2X1+F-48DC-PT - 2801250

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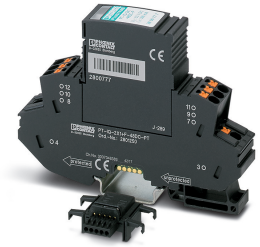
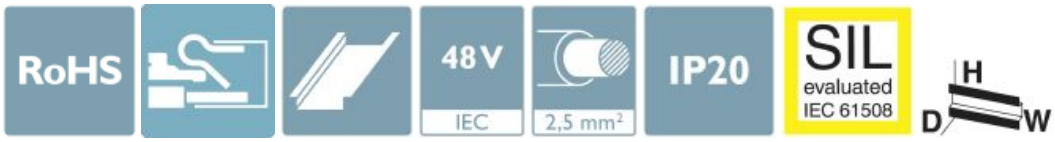


Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for two signal wires with common reference potential. Indirect grounding via gas-filled surge arrester.



Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 766333
GTIN	4046356766333
Weight per Piece (excluding packing)	140.000 g
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	109.3 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
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m (amsl (above mean sea level))
Degree of protection	IP20

General

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Technical data

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.

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
Rated current	300 mA
Operating effective current I_C at U_C	≤ 6 µA (per path)
Residual current I_{PE}	≤ 1 µA
Nominal discharge current I_n (8/20) µs (line-earth)	10 kA
Nominal discharge current I_n (8/20) µs (line-signal ground)	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-earth)	≤ 750 V (C1 - 1 kV/500 A)
	≤ 950 V (C2 - 10 kV / 5 kA)
	≤ 850 V (C3 - 25 A)
Voltage protection level U_p (line-signalground)	≤ 105 V (C1 - 1 kV/500 A)
	≤ 160 V (C2 - 10 kV / 5 kA)
	≤ 90 V (C3 - 25 A)
Voltage protection level U_p static (line-earth)	≤ 200 V (C2 - 10 kV / 5 kA)
Response time t_A (line-signalground)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, asym.	typ. 0.3 dB (≤ 530 kHz / 150 Ω)
Cut-off frequency fg (3 dB), asym. (signal ground) in 150 Ω system	typ. 1.9 MHz

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Protective circuit

Capacity (line-signalground)	typ. 1.5 nF
Resistance per path	1.2 Ω ±5 %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	315 mA (FF)
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 25 A
	D1 - 2.5 kA
Impulse durability (line-signalground)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 25 A
	D1 - 2,5 kA
Pulse reset time (line-earth)	≤ 250 ms
Pulse reset time (line-signalground)	≤ 1500 ms

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Connection, equipotential bonding

Connection method	DIN rail NS35

Standards and Regulations

Standards/specifications	IEC 61643-21 2000 + A1:2008 + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013
	EN 61000-6-3 2007 + A1:2011
	EN 61000-6-2 2005

Environmental Product Compliance

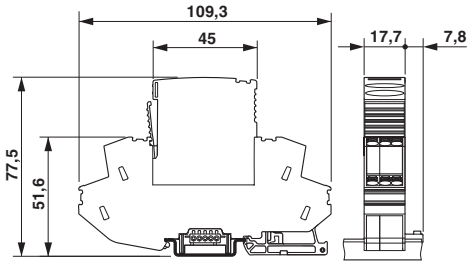
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

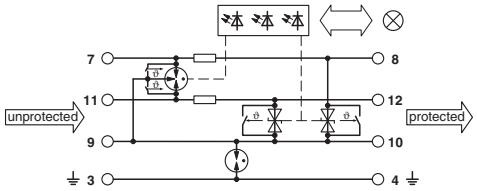
Surge protection device - PT-IQ-2X1+F-48DC-PT - 2801250

Pictogram

Dimensional drawing



Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 11.0	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610

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UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

CSA / UL Listed / CSAus / EAC / cCSAus

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	2761632
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
CSAus		http://www.csagroup.org/services-industries/product-listing/	2761632
EAC			RU C-DE.*09.B.00169

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Approvals

cCSAus