Surge protection device - PT-IQ-4X1+F-24DC-UT - 2800983

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The figure shows the PT-IQ-2x2-24DC-UT version

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

Why buy this product

- 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 STK
GTIN	4 046356 664165
GTIN	4046356664165
Weight per Piece (excluding packing)	160.000 g
Custom tariff number	85363010
Country of origin	Germany

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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
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.

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous voltage U_C	30 V DC
	21 V AC
Rated current	700 mA (50 °C)
Operating effective current I_C at U_C	≤ 1 mA (per path)
Residual current I_{PE}	≤ 1 µA
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
Total discharge current I_{total} (8/20) µs	20 kA
Voltage protection level U_p (core-ground)	≤ 800 V (C1 - 1 kV/500 A)

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Protective circuit

	≤ 950 V (C2 - 10 kV / 5 kA)
	≤ 650 V (C2 - 10 kA)
	≤ 780 V (C3 - 25 A)
Voltage protection level U_p (core-GND)	≤ 75 V (C1 - 1 kV/500 A)
	≤ 135 V (C2 - 10 kV / 5 kA)
	≤ 180 V (C2 - 10 kA)
	≤ 55 V (C3 - 25 A)
	≤ 60 V (C3 - 50 A)
Voltage protection level U_p static (core-ground)	≤ 80 V (C2 - 10 kV / 5 kA)
	≤ 230 V (C2 - 10 kA)
Response time tA (core-earth)	≤ 1 ns
	≤ 100 ns
Input attenuation aE, asym.	typ. 0.3 dB (≤ 300 kHz / 150 Ω)
Cut-off frequency fg (3 dB), asym. (GND) in 150 Ohm system	typ. 1.1 MHz
Capacity (core-earth)	typ. 2 nF
Resistance in series	1.2 Ω ±5 %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	800 mA (FF)
Impulse durability (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
	D1 - 2.5 kA
Impulse durability (conductor-GND)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
	D1 - 2,5 kA
Pulse reset time (conductor-ground)	≤ 30 ms
Pulse reset time (conductor-GND)	≤ 350 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 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²

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Technical data

Connection data

Conductor cross section AWG	24 ... 12

Connection, equipotential bonding

Connection method	DIN rail NS35

Remote indication contact

Switching function	via DIN rail connector

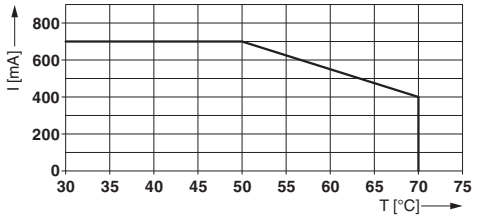
Standards and Regulations

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

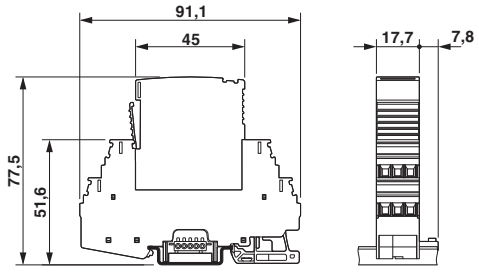
Drawings

Pictogram

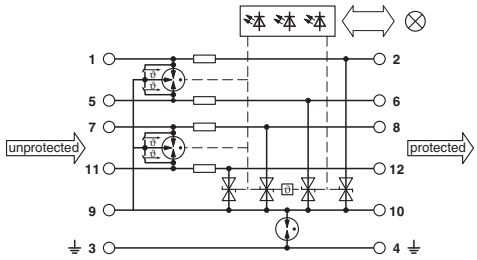
Diagram



Dimensional drawing



Circuit diagram



Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801

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Classifications

eCl@ss

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
ETIM 6.0	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

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168

EAC		RU C-DE.A*30.B01561

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Approvals

CSA	http://www.csagroup.org/services-industries/product-listing/	2761632
CSAus	http://www.csagroup.org/services-industries/product-listing/	2761632
cCSAus	http://www.csagroup.org/us/en/services/testing-and-certification/certified-product-listing	

Accessories

Accessories

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128

Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm

Labeled terminal marker

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671

Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821

Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm

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Accessories

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863

Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697

Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm

Marker pen

Marker pen - X-PEN 0,35 - 0811228

Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

Mounting material

Electronic housing - E/ME TBUS NS35 GY - 2713780

End clamp, stable construction for DIN rail bus connector

PCB plug

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Accessories

Printed-circuit board connector - FK-MC 0,5/ 5-ST-2,5 - 1881354

Plug component, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 5, pitch: 2.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

Terminal marking

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm

Necessary add-on products

Supply and remote module - PT-IQ-PTB-UT - 2800768

Module for power supply and multi-stage, floating remote signaling of connected surge protection modules.

Additional products

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Accessories

Shield connection - SSA 3-6 - 2839295

Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

Shield connection - SSA 5-10 - 2839512

Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

Spare parts

Surge protection plug - PT-IQ-4X1-24DC-P - 2800813

Surge protection plug with integrated multi-stage status indicator on the module for four signal wires with common reference potential. 24 V DC nominal voltage.

DIN rail bus connectors - PT-IQ-17,5-TBUS-5-2.0 - 2906878

DIN rail connector for PT-IQ system for establishing remote signaling and the power supply when a surge protection module is snapped on.

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