PHŒNIX CONTACT

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

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Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for five signal wires. For HF applications and telecommunications interfaces without supply voltage (up to 90 Mbps).

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
- For HF applications, thanks to high transmission speeds
- 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
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	91 mm
Width	17.7 mm
Depth	77.5 mm
Horizontal pitch	1 Div.

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

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
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
Standards for cearances and creepage distances	IEC 60664-1
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
Transmission speed	90 MBit/s

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	5 V DC
Maximum continuous voltage U_C	6 V DC
	4 V AC
Nominal current I_N	600 mA (40°C)
Operating effective current I_C at U_C	≤ 800 µA (per path)
Residual current I_{PE}	≤ 800 µA (per path)
Nominal discharge current I_n (8/20) µs (Core-Core)	10 kA
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
Impulse discharge current (10/350)#µs, peak value I_{imp}	2.5 kA
Voltage protection level U_p (core-core)	≤ 90 V (C1 - 1 kV/500 A)
	≤ 140 V (C2 - 10 kV / 5 kA)
	≤ 30 V (C3 - 25 A)
	≤ 30 V (C3 - 50 A)
Voltage protection level U_p (core-ground)	≤ 90 V (C1 - 1 kV/500 A)
	≤ 140 V (C2 - 10 kV / 5 kA)
	≤ 30 V (C3 - 25 A)
	≤ 30 V (C3 - 50 A)

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Technical data

Protective circuit

Voltage protection level U_p static (core-core)	≤ 45 V (C1 - 1 kV/500 A)
Voltage protection level U_p static (core-ground)	≤ 45 V (C1 - 1 kV/500 A)
Response time tA (Core-Core)	≤ 1 ns
Response time tA (Core-Earth)	≤ 1 ns
Input attenuation aE, sym.	typ. 0.3 dB (≤ 10 MHz/150 Ω)
Input attenuation aE, asym.	typ. 0.3 dB (≤ 10 MHz/150 Ω)
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 60 MHz
Cut-off frequency fg (3 dB), asym. (GND) in 150 Ohm system	typ. 60 MHz
Capacity (Core-Core)	typ. 30 pF
Capacity (Core-GND)	typ. 30 pF
Resistance in series	1.2 Ω ±5 %
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	600 mA (FF)
Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
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
Pulse reset time (conductor-conductor)	≤ 10 ms
Pulse reset time (conductor-ground)	≤ 10 ms

Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
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

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Technical data

Connection data

Conductor cross section AWG	24 ... 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
eCl@ss 9.0	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

Approvals

UL Listed / EAC / CSA / CSAus / cCSAus

Ex Approvals

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Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Approvals

Approvals submitted

Approval details

UL Listed

EAC

CSA

CSAus

cCSAus

Accessories

Accessories

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128

Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 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: 5.15 x 5.15 mm

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Accessories

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: 5.15 x 5.15 mm

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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: 5.15 x 5.15 mm

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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: 5.15 x 5.15 mm

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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

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Mounting material

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Accessories

Electronic housing - E/ME TBUS NS35 GY - 2713780

End clamp, stable construction for DIN rail bus connector

PCB plug

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

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Terminal marking

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

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.1 x 5.2 mm

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

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

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Required add-on products

Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Accessories

Surge protection controller - PT-IQ-PTB-UT - 2800768

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

Additional products

Shield connection - SSA 3-6 - 2839295

shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

Shield connection - SSA 5-10 - 2839512

Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

Spare parts

Surge protection plug - PT-IQ-5-HF-5DC-P - 2800795

Surge protection plug with integrated multi-stage status indicator on the module for five signal wires. For HF applications. Nominal voltage: 5 V DC

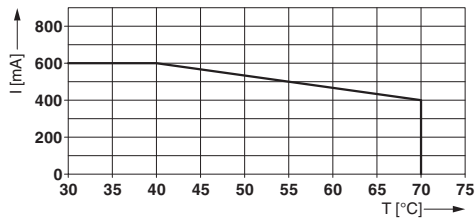DIN rail connector - PT-IQ-17,5-TBUS-5-2.0 - 2906878

DIN rail connector for PT-IQ system for establishing remote signaling and the power supply when a surge protection module is snapped on.
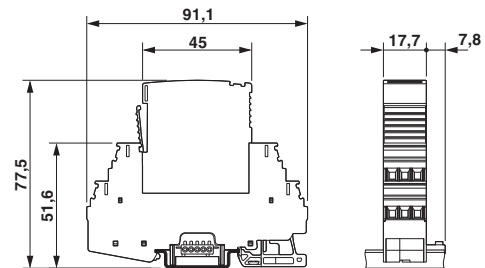
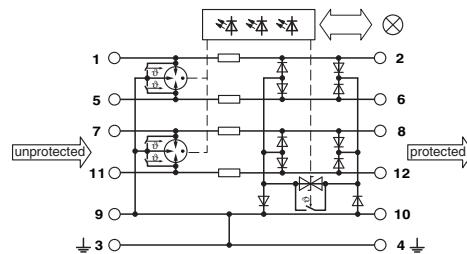# Surge protection device - PT-IQ-5-HF-5DC-UT - 2800797

Accessories

Drawings

Diagram

Dimensional drawing

Circuit diagram

Mouser Electronics

Authorized Distributor

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