Surge protection device - PT-IQ-3-HF-12DC-UT - 2800786

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The figure shows the PT-IQ-1x2-24DC-UT version

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

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	135.4 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	91.1 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	V-0
Color	jet black RAL 9005
Standards for cearances and creepage distances	IEC 60664-1
Mounting type	DIN rail: 35 mm

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Technical data

General

Type	DIN rail module, two-section, divisible
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	12 V DC
Maximum continuous voltage U_C	15 V DC
	10 V AC
Nominal current I_N	600 mA (40°C)
Operating effective current I_C at U_C	≤ 100 µA (per path)
Residual current I_{PE}	≤ 100 µA (per path)
Nominal discharge current I_n (8/20) µs (Core-Core)	5 kA
	10 kA
Nominal discharge current I_n (8/20) µs (Core-Earth)	5 kA
	10 kA
Pulse discharge current I_{imp} (10/350) µs (core-ground)	2.5 kA
Pulse discharge current I_{imp} (10/350) µs (core-GND)	2.5 kA
Total surge current (8/20) µs	20 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)
	≤ 145 V (C2 - 10 kV / 5 kA)
	≤ 40 V (C3 - 25 A)
	≤ 40 V (C3 - 50 A)
Voltage protection level U_p (core-ground)	≤ 90 V (C1 - 1 kV/500 A)
	≤ 145 V (C2 - 10 kV / 5 kA)
	≤ 40 V (C3 - 25 A)
	≤ 40 V (C3 - 50 A)
Voltage protection level U_p static (core-core)	≤ 55 V (C1 - 1 kV/500 A)
Voltage protection level U_p static (core-ground)	≤ 55 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)
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 60 MHz

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Technical data

Protective circuit

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 - 5 kA
	C3 - 50 A
	D1 - 2.5 kA
Impulse durability (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 5 kA
	C3 - 50 A
	D1 - 2,5 kA
Pulse reset time (conductor-conductor)	≤ 15 ms
Pulse reset time (conductor-ground)	≤ 15 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 min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	4 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12

Connection, equipotential bonding

Connection method	NS 35 DIN rail or connection terminal block

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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

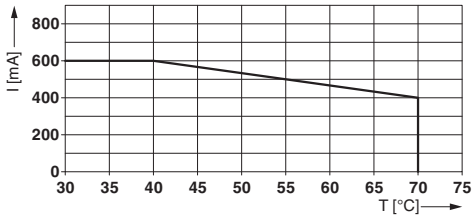
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

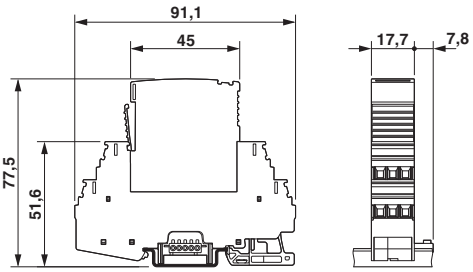
UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Drawings

Diagram



Dimensional drawing



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Circuit diagram