

Surge protection device - PT-IQ-3-HF-12DC-PT - 2801288

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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
GTIN	
GTIN	4046356766692

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

Housing material	PA 6.6
Flammability rating according to UL 94	V0
Color	jet black RAL 9005
Standards for clearances and creepage distances	IEC 60664-1
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible

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Technical data

General

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Transmission speed	90 Mbps

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
Rated current	600 mA (40 °C)
Operating effective current I_C at U_C	$\leq 100 \mu\text{A}$ (per path)
Residual current I_{PE}	$\leq 100 \mu\text{A}$ (per path)
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)	$\leq 90 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 145 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 40 \text{ V}$ (C3 - 25 A)
	$\leq 40 \text{ V}$ (C3 - 50 A)
Voltage protection level U_p (line-earth)	$\leq 90 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 145 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 40 \text{ V}$ (C3 - 25 A)
	$\leq 40 \text{ V}$ (C3 - 50 A)
Voltage protection level U_p static (line-line)	$\leq 55 \text{ V}$ (C1 - 1 kV/500 A)
Voltage protection level U_p static (line-earth)	$\leq 55 \text{ V}$ (C1 - 1 kV/500 A)
Response time t_A (line-signalground)	$\leq 1 \text{ ns}$
Response time t_A (line-earth)	$\leq 1 \text{ ns}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 10 \text{ MHz}/150 \Omega$)
Input attenuation aE, asym.	typ. 0.3 dB ($\leq 10 \text{ MHz}/150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 60 MHz
Cut-off frequency f_g (3 dB), asym. (GND) in 150 Ohm system	typ. 60 MHz
Capacity (line-line)	typ. 30 pF
Capacity (line-signalground)	typ. 30 pF
Resistance in series	1.2 $\Omega \pm 5 \%$
Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	600 mA (FF)
Impulse durability (line-line)	C1 - 1 kV/500 A

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Protective circuit

	C2 - 10 kV/5 kA
	C3 - 50 A
Impulse durability (line-earth)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C3 - 50 A
	D1 - 2.5 kA
Pulse reset time (line-line)	≤ 15 ms
Pulse reset time (line-earth)	≤ 15 ms

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section solid	0.2 mm ² ... 4 mm ²
Conductor cross section AWG	24 ... 12

Connection, equipotential bonding

Connection method	DIN rail NS35
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Standards and Regulations

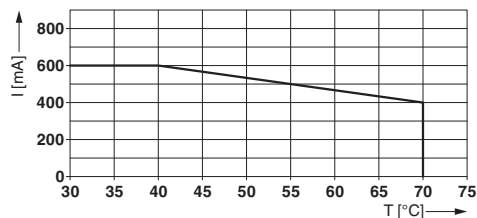
Standards/specifications	IEC 61643-21 2000 + A1:2008 + A2:2012
	EN 61643-21 2001 + A1:2009
	EN 61000-6-2 2005
	EN 61000-6-3 2007 + A1:2011

Environmental Product Compliance

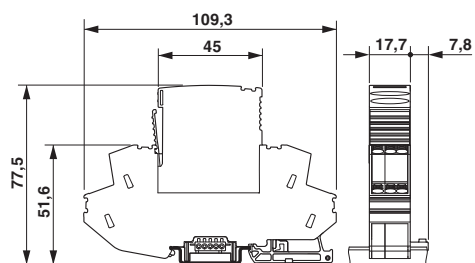
REACH SVHC	Lead 7439-92-1
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Drawings

Diagram

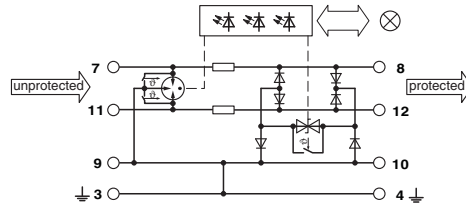


Dimensional drawing



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Circuit diagram



Approvals

Approvals

Approvals

EAC / UL Listed

Ex Approvals

Approval details

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