Surge protection device - PT-IQ-5-HF-12DC-UT - 2800799

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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).

Your advantages

- 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
GTIN	4 046356 665216
GTIN	4046356665216

Technical data

Dimensions

Height	91 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

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Ambient conditions

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
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 Mpbs

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	≤ 100 µA (per path)
Residual current I_{PE}	≤ 100 µA (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)	≤ 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 (line-earth)	≤ 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 (line-line)	≤ 55 V (C1 - 1 kV/500 A)
Voltage protection level U_p static (line-earth)	≤ 55 V (C1 - 1 kV/500 A)
Response time t_A (line-line)	≤ 1 ns

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Protective circuit

Response time t_A (line-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 (line-line)	typ. 30 pF
Capacity (line-signalground)	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 (line-line)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
Impulse durability (line-earth)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
	D1 - 2.5 kA
Surge current carrying capability (wire-signal ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C2 - 10 kA
	C3 - 50 A
Pulse reset time (line-line)	≤ 15 ms
Pulse reset time (line-earth)	≤ 15 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
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 61000-6-2 2005

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Standards and Regulations

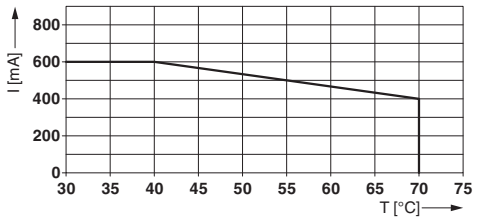
	EN 61000-6-3 2007 + A1:2011

Environmental Product Compliance

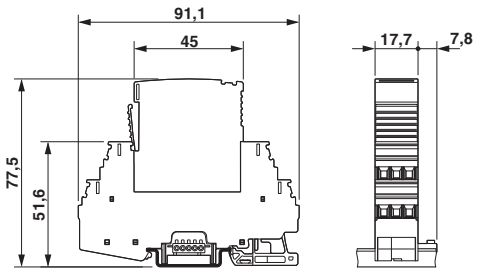
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

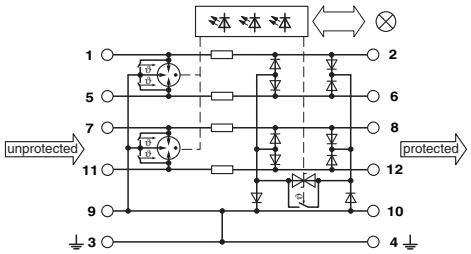
Diagram



Dimensional drawing



Circuit diagram



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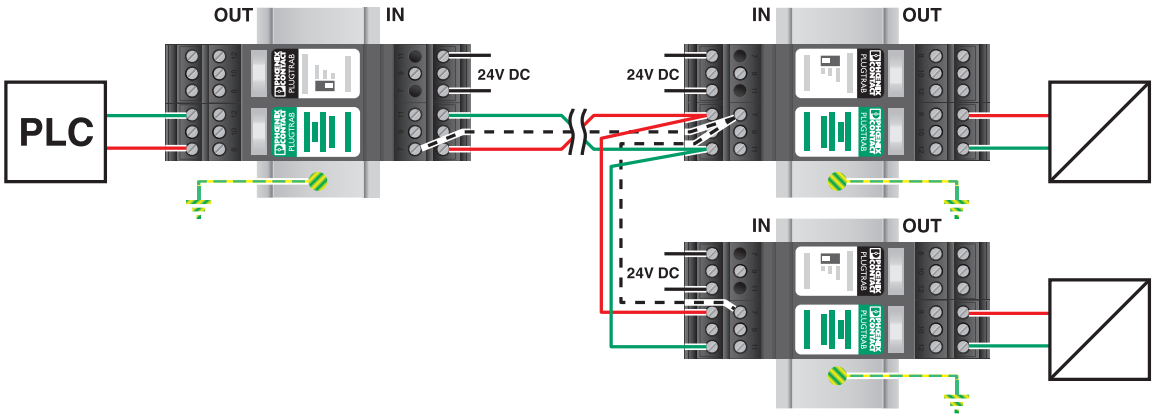
Application drawing



Approvals

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UL Listed / EAC / 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
EAC			EAC-Zulassung
CSA		http://www.csagroup.org/services-industries/product-listing/	2761632

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CSAus		http://www.csagroup.org/services-industries/product-listing/	2761632

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

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