

Surge protection device - PT-IQ-5-HF+F-5DC-PT - 2801292

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




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 766739
GTIN	4046356766739

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
---------------------------------	------------------

Surge protection device - PT-IQ-5-HF+F-5DC-PT - 2801292

Technical data

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
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 Mbps

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
Rated current	600 mA (40 °C)
Operating effective current I_C at U_C	≤ 800 μA (per path)
Residual current I_{PE}	≤ 10 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
Nominal discharge current I_n (8/20) μs (core-signal ground)	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)
	≤ 30 V (C3 - 25 A)
	≤ 30 V (C3 - 50 A)
	≤ 140 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p (line-earth)	≤ 730 V (C1 - 1 kV/500 A)
	≤ 900 V (C2 - 10 kV / 5 kA)
	≤ 900 V (C3 - 25 A)
	≤ 900 V (C3 - 50 A)
Voltage protection level U_p (line-signalground)	≤ 90 V (C1 - 1 kV/500 A)
	≤ 30 V (C3 - 25 A)
	≤ 30 V (C3 - 50 A)

Surge protection device - PT-IQ-5-HF+F-5DC-PT - 2801292

Technical data

Protective circuit

	≤ 140 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p static (line-line)	≤ 45 V (C1 - 1 kV/500 A)
Voltage protection level U_p static (line-signalground)	≤ 45 V (C1 - 1 kV/500 A)
Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-signalground)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 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 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 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 - 25 A C3 - 50 A
Impulse durability (line-earth)	C1 - 1 kV/500 A C2 - 10 kV/5 kA C2 - 10 kA C3 - 25 A 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 - 25 A C3 - 50 A
Pulse reset time (line-line)	≤ 10 ms
Pulse reset time (line-earth)	≤ 10 ms
Pulse reset time (line-signalground)	≤ 10 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

Surge protection device - PT-IQ-5-HF+F-5DC-PT - 2801292

Technical data

Connection, equipotential bonding

Connection method	DIN rail NS35
-------------------	---------------

Standards and Regulations

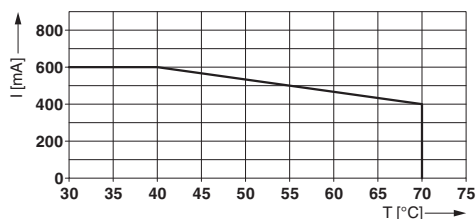
Standards/specifications	IEC 61643-21 2000 + A1:2008 + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013
	EN 61000-6-2 2005
	EN 61000-6-3 2007 + A1:2011

Environmental Product Compliance

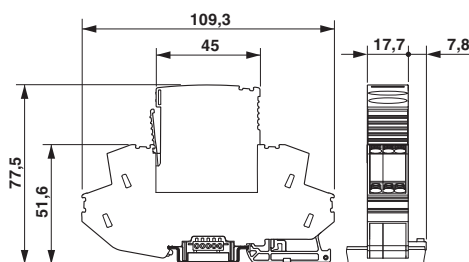
REACH SVHC	Lead 7439-92-1
------------	----------------

Drawings

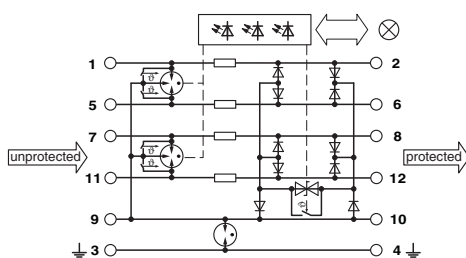
Diagram



Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

UL Listed / EAC / EAC / CSA / CSAus / cCSAus

Ex Approvals

Surge protection device - PT-IQ-5-HF+F-5DC-PT - 2801292

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

Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>