Surge protection device - TTC-6-3-HF-F-M-24DC-PT-I - 2906779

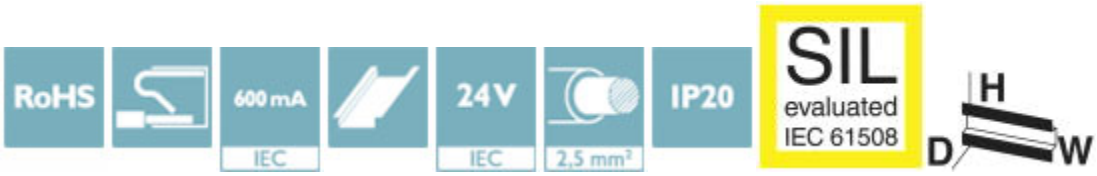
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Surge protection with integrated status indicator and knife disconnection for three signal wires with common reference potential. For HF applications and telecommunications interfaces without supply voltage (up to 90 Mbps). Indirect grounding via gas-filled surge arrester.

Why buy this product

- Space-saving installation due to the narrow overall width of 6.2 mm
- Signaling without additional auxiliary power, thanks to the mechanical status indicator
- Optional remote signaling module monitors up to 40 items, without additional wiring
- Quick and tool-free installation of surge protective devices, thanks to Push-in connection technology
- Signal circuits easily interrupted for maintenance work, thanks to vertical knife disconnection
- Safe behavior in the event of overload, thanks to the integrated disconnect device
- Grounded or insulated shield grounding, thanks to the third terminal point on the surge protective device



Key Commercial Data

Packing unit	1
GTIN	4 055626 145679
GTIN	4055626145679
Custom tariff number	85363010

Technical data

Dimensions

Height	105.8 mm
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Width	6.2 mm
Depth	83.5 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

General

Housing material	PBT
Flammability rating according to UL 94	V-0
Color	traffic grey A RAL 7042
Mounting type	DIN rail: 35 mm
Design	Rail-mountable module, one-piece
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	24 V DC
Maximum continuous voltage U_C	30 V DC
Rated current	600 mA (40 °C)
Operating effective current I_C at U_C	≤ 5 µA
Residual current I_{PE}	≤ 1 µA
Nominal discharge current I_n (8/20) µs (Core-Core)	5 kA
Nominal discharge current I_n (8/20) µs (core-earth)	5 kA
Nominal discharge current I_n (8/20) µs (core-GND)	5 kA
Pulse discharge current I_{imp} (10/350) µs (core-ground)	0.5 kA
Pulse discharge current I_{imp} (10/350) µs (core-GND)	0.5 kA
Total discharge current I_{total} (8/20) µs	10 kA
Voltage protection level U_p (core-core)	≤ 150 V (C1 - 1 kV/500 A)
	≤ 275 V (C2 - 10 kV / 5 kA)
	≤ 45 V (C3 - 25 A)
	≤ 55 V (C3 - 100 A)
Voltage protection level U_p (core-ground)	≤ 750 V (C1 - 1 kV/500 A)
	≤ 750 V (C2 - 10 kV / 5 kA)
	≤ 110 V (C3 - 25 A)
	≤ 1.2 kV (C3 - 100 A)
Voltage protection level U_p (core-GND)	≤ 80 V (C1 - 1 kV/500 A)

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Protective circuit

	≤ 125 V (C2 - 10 kV / 5 kA)
	≤ 45 V (C3 - 25 A)
	≤ 55 V (C3 - 100 A)
Voltage protection level U_p static (core-core)	≤ 75 V (C1 - 1 kV/500 A)
	≤ 120 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p static (core-ground)	≤ 750 V (C1 - 1 kV/500 A)
	≤ 750 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p static (core-GND)	≤ 75 V (C1 - 1 kV/500 A)
	≤ 120 V (C2 - 10 kV / 5 kA)
Response time tA (core-core)	≤ 1 ns
Response time tA (core-earth)	≤ 1 ns
	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (≤ 8.7 MHz / 150 Ω)
Input attenuation aE, asym.	typ. 0.3 dB (≤ 10.5 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. 32 pF
Capacity (Core-GND)	typ. 32 pF
Resistance in series	1.65 Ω ±20 %
Surge protection fault message	optical
Max. required back-up fuse	630 mA (FF)
Impulse durability (conductor-conductor)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C3 - 100 A
Impulse durability (conductor-ground)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C3 - 100 A
	D1 - 500 A
Impulse durability (conductor-GND)	C1 - 1 kV/500 A
	C2 - 10 kV/5 kA
	C3 - 100 A
	D1 - 500 A
Pulse reset time (conductor-conductor)	≤ 600 ms
Pulse reset time (conductor-ground)	≤ 30 ms
Pulse reset time (conductor-GND)	≤ 600 ms

Connection data

Connection method	Push-in connection

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Connection data

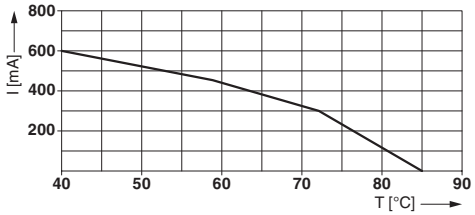
Connection method IN	Push-in connection
Connection method OUT	Push-in connection
Stripping length	8 mm
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Standards and Regulations

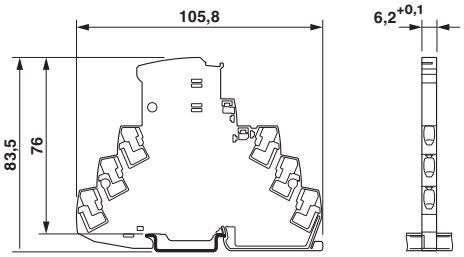
Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

Drawings

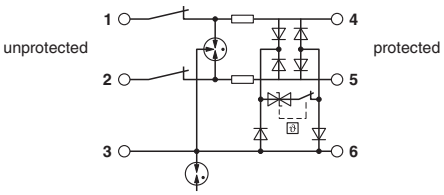
Diagram



Dimensional drawing



Circuit diagram



Approvals

Approvals

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UL Listed

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Approvals

Ex Approvals

Approval details

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

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