

TTC-6-MOV-D-120AC-PT-I - Surge protection device



1109689

<https://www.phoenixcontact.com/us/products/1109689>

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Medium surge protection with integrated status indicator for one 2-wire floating signal circuit. Can be used in safety-related circuits up to SIL 3.

Your advantages

- Space-saving and cost-saving with a narrow overall width of just 6 mm
- Continuous monitoring of protective devices, plus mechanical status indicator with optional remote signaling
- Finding the right product for all possible requirements in MCR applications is easy, thanks to the complete range of products with customized features

Commercial data

Item number	1109689
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL23
Product key	CL2265
GTIN	4063151020170
Weight per piece (including packing)	27.568 g
Weight per piece (excluding packing)	22.648 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Product properties

Product type	Surge protection for MCR technology
Product family	TERMITRAB complete
IEC test classification	C1
	C2
	C3
Type	DIN rail module, one-piece
Wire pairs per module	1

Insulation characteristics

Overvoltage category	III
Pollution degree	2

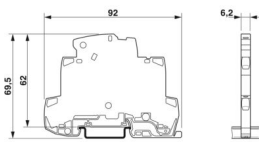
Electrical properties

Nominal voltage U_N	120 V AC
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Connection data

Connection method	Push-in connection
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section rigid	0.2 mm ² ... 4 mm ²
Conductor cross-section AWG	24 ... 12

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	92 mm
Depth	69.5 mm (incl. DIN rail 7.5 mm)

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V-0
Insulating material	PBT
Housing material	PBT

Mechanical properties

Mechanical data

Open side panel	Yes
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Protective circuit

Direction of action	Line-Line
Nominal voltage U_N	120 V AC
Maximum continuous operating voltage U_C	150 V DC
	150 V AC
Rated current	10 A (60 °C)
Operating effective current I_C at U_C	$\leq 100 \mu\text{A}$
Protective conductor current I_{PE}	$\leq 100 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (line-line)	2.5 kA
Voltage protection level U_p (line-line)	$\leq 200 \text{ V}$ (C1 - 800 A)
	$\leq 500 \text{ V}$ (C2 - 5 kV)
	$\leq 380 \text{ V}$ (C3 - 25 A)
	$\leq 380 \text{ V}$ (C3 - 35 A)
Response time t_A (line-line)	$\leq 25 \text{ ns}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 300 \text{ kHz} / 150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 1 MHz
Capacity (Core-Core)	5 nF
Resistance per path	$\leq 100 \text{ m}\Omega$
Surge protection fault message	optical
Impulse durability (line-line)	C1 - 800 A
	C2 - 2,5 kA
	C3 - 35 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (with end cover)
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	$\leq 2000 \text{ m}$ (amsl)
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

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

EN 61643-21

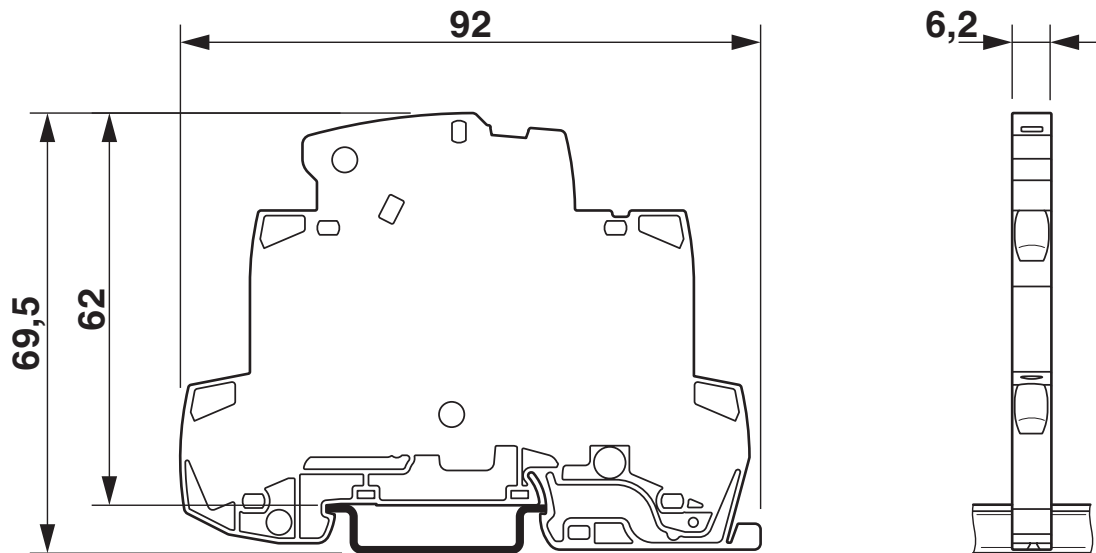
Standards/specifications	EN 61643-21
Note	2001 + A1:2009 + A2:2013

Mounting

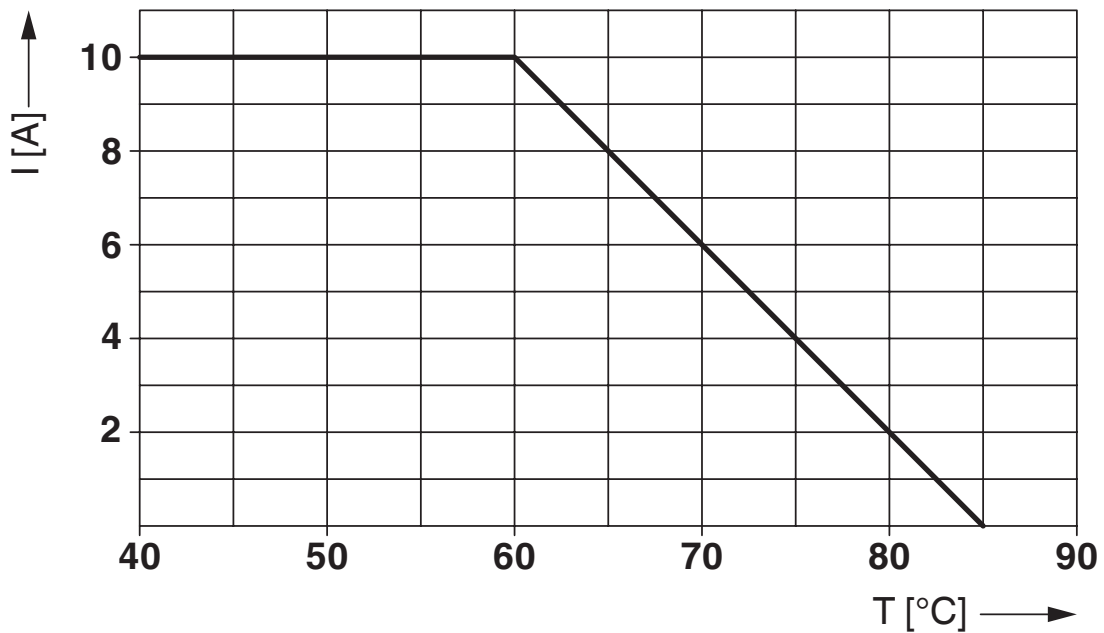
Mounting type	DIN rail: 35 mm
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Drawings

Dimensional drawing



Diagram



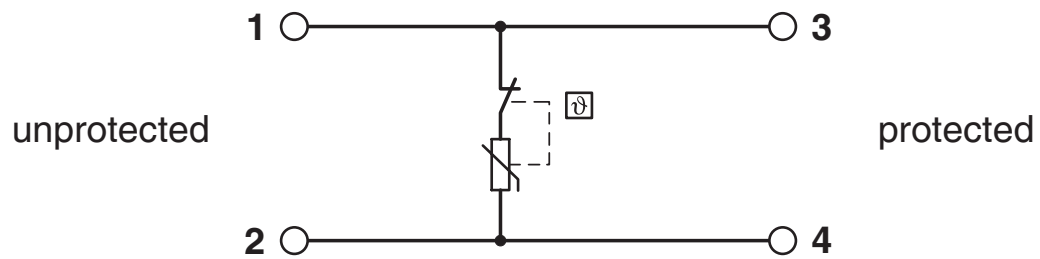
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Circuit diagram




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Approvals

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 **CSA**
Approval ID: 70136717

 **DNV GL**
Approval ID: TAE000027G

 **UL Listed**
Approval ID: FILE E 138168

 **CSAus**
Approval ID: 70136717

UAE-RoHS
Approval ID: 22-06-16192

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Classifications

ECLASS

ECLASS-13.0	27171501
ECLASS-15.0	27171501

ETIM

ETIM 10.0	EC001466
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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