

TTC-6-MOV-D-24DC-UT-I - Surge protection device



2906841

<https://www.phoenixcontact.com/us/products/2906841>

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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	2906841
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL23
Product key	CL2264
Catalog page	Page 150 (C-4-2019)
GTIN	4055626136974
Weight per piece (including packing)	28.7 g
Weight per piece (excluding packing)	23.94 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
Surge protection fault message	optical
Wire pairs per module	1

Data management status

Article revision	08
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Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal voltage U_N	24 V DC
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Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
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

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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
Maximum continuous voltage U_C	30 V DC
	21 V AC
Rated current	10 A (60 °C)
Operating effective current I_C at U_C	$\leq 100 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	2 kA
Voltage protection level U_p (line-line)	$\leq 110 V$ (C1 - 700 V/350 A)
	$\leq 160 V$ (C2 - 4 kV)
	$\leq 80 V$ (C3 - 25 A)
Response time t_A (line-line)	$\leq 25 ns$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 60 kHz/150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 200 kHz
Capacity (Core-Core)	10 nF
Resistance per path	$\leq 100 m\Omega$
Surge protection fault message	optical
Impulse durability (line-line)	C1 - 350 A
	C2 - 2 kA
	C3 - 25 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	$\leq 4000 m$ (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

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Mounting

Mounting type	DIN rail: 35 mm
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Drawings

Schematic diagram



Functional safety scenarios

Circuit diagram



Diagram



Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2906841>



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

Functional Safety

Approval ID: 16-06-072 R024 V2R0

cCSAus

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Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

ETIM 9.0	EC000943
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
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%
EF3.0 Climate Change	
CO2e kg	0.133 kg CO2e

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