

TTC-6P-4-24DC-UT-I - Surge protection device



1106013

<https://www.phoenixcontact.com/us/products/1106013>

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Surge protection, consisting of protective plug and base element, with integrated status indicator for a 4-wire floating signal circuit with high nominal current. Ideal for 4-conductor measurements, e.g., of temperature and weight.

Your advantages

- Efficient use of space: the narrowest pluggable surge protection solution for 4-conductor applications
- Easy function monitoring: on-site or optionally via remote signaling, with optical monitoring, without additional effort
- Servicing without affecting the signal: replace the surge protection module without affecting the measuring signal
- Flexible choice: Push-in Technology or screw connection

Commercial data

Item number	1106013
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL23
Product key	CL2161
GTIN	4055626996837
Weight per piece (including packing)	55.9 g
Weight per piece (excluding packing)	53.7 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Product properties

IEC test classification	C1
	C2
	C3
	D1
Type	DIN rail module, two-section, divisible
Product type	Surge protection for MCR technology
Product family	TERMITRAB complete

Insulation characteristics

Overvoltage category	III
Pollution degree	2

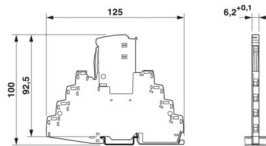
Electrical properties

Nominal voltage U_N	24 V DC
	24 V AC

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 +0.1 mm
Height	125 mm
Depth	100 mm (incl. DIN rail 7.5 mm)

Material specifications

Color (Base element)	gray (RAL 7042)
Color (Male connector)	light grey (RAL 7035)
Flammability rating according to UL 94	V-0
Insulating material	PBT
Housing material	PBT

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Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	36 V DC
	30 V AC
Rated current	2.5 A (60°C for insulated systems)
Operating effective current I_C at U_C	$\leq 5 \mu\text{A}$
Residual current I_{PE}	$\leq 1 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (line-line)	350 A
Nominal discharge current I_n (8/20) μs (line-ground)	5 kA
Pulse discharge current I_{imp} (10/350) μs (line-earth)	0.5 kA
Total discharge current I_{total} (8/20) μs	10 kA
Voltage protection level U_p (line-line)	$\leq 100 \text{ V}$ (C1 - 0.7 kV / 350 A)
	$\leq 100 \text{ V}$ (C3 - 50 A)
	$\leq 80 \text{ V}$ (C3 - 25 A)
Voltage protection level U_p (line-earth)	$\leq 900 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 900 \text{ V}$ (C2 - 10 kV / 5 kA)
Response time t_A (line-line)	$\leq 1 \text{ ns}$
Response time t_A (line-earth)	$\leq 100 \text{ ns}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 12 \text{ MHz}$ / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	$> 60 \text{ MHz}$
Capacity (Core-Core)	typ. 30 pF
Capacity (Core-Earth)	typ. 30 pF
Resistance per path	0.03 Ω
Surge protection fault message	optical
Max. required back-up fuse	2.5 A (F)
Impulse durability (line-line)	C1 - 700 V / 350 A
	C3 - 50 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 500 A

Additional technical data

Max. total discharge current $I_{total \max}$ (8/20) μs	20 kA (1x)
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Environmental and real-life conditions

Ambient conditions

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

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Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %

Approvals

Conformity/Approvals

UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T4A
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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: TH 35 - 7.5 mm
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Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

ETIM 9.0	EC001625
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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