

Surge protection device - TT-PI-EX-TB/T - 2858344

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Intrinsically safe basic terminal block with isolating connector, test connections and surge protection, with additional temperature measurement of the input terminal block for cold junction compensation, for mounting on NS 35/7.5



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	105.72 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	144.7 mm
Width	12.35 mm
Depth	84.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Degree of protection	IP20

General

Housing material	PBT
Inflammability class according to UL 94	V2
Color	black
Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1
Mounting type	DIN rail: 35 mm

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Technical data

General

Type	PI basic terminal block
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating voltage U_C	30 V DC
	21 V AC
Maximum continuous voltage U_C (wire-wire)	30 V DC
	21 V AC
Nominal current I_N	250 mA (40°C)
Operating effective current I_C at U_C	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 4 \mu A$
Nominal discharge current I_n (8/20) μs (Core-Core)	5 kA
Nominal discharge current I_n (8/20) μs (Core-Earth)	5 kA
Total surge current (8/20) μs	10 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Core)	5 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	5 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	100 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	100 A
Impulse discharge current (10/350) μs , peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	1.85 kV
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 45 V$
Residual voltage at I_n , (conductor-conductor)	$\leq 45 V$
Residual voltage with I_{an} (10/1000) μs (conductor-conductor)	$\leq 45 V$
Voltage protection level U_p (Core-Core)	$\leq 90 V$ (C2 (10 kV/5 kA))
Voltage protection level U_p (Core-Earth)	$\leq 1.85 kV$ (C2 (10 kV/5 kA))
Response time t_A (Core-Core)	$\leq 1 ns$
Response time t_A (Core-Earth)	$\leq 100 ns$
Input attenuation a_E , sym.	0.8 dB ($\leq 1 MHz / 50 \Omega$)
	0.3 dB ($\leq 250 kHz / 150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	typ. 7 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 2 MHz

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Protective circuit

Resistance in series	4.7 Ω \pm 10 %
	4.7 Ω
Surge protection fault message	None
Surge current resistance (conductor-conductor)	C2 - 10 kV/5 kA
	C3 - 100 A
Surge current resistance (conductor-ground)	C2 - 10 kV/5 kA
	C3 - 100 A
	D1 - 1 kA

Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14

Standards and Regulations

Standards/regulations	IEC 61643-21
	EN 50020

General

Maximum inner capacitance C_i	3 nF
Maximum inner inductance L_i	1 μ H
Maximum inner time factor (R_i/L_i)	0.1 μ s
Max. input current I_i	250 mA
Max. input voltage U_i	30 V

Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807

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Classifications

eCl@ss

eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals


GOST

Ex Approvals

ATEX

Approvals submitted

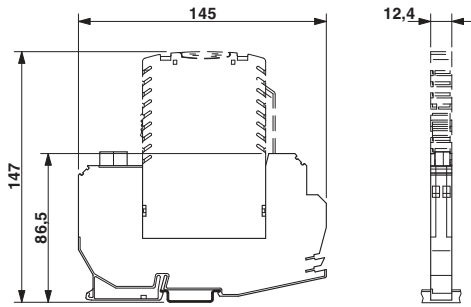
Approval details

GOST 
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Drawings

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Dimensioned drawing



Circuit diagram

