

TTC-6-3-HF-F-24AC-PT-I - Surge protection device



1088786

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Surge protection with integrated status indicator 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 discharge tube.

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	1088786
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL23
Product key	CL2262
GTIN	4055626891712
Weight per piece (including packing)	38.2 g
Weight per piece (excluding packing)	37 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, one-piece
Product type	Surge protection for information technology
Product family	TERMITRAB complete

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal voltage U_N	24 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 +0.1 mm
Height	105.8 mm
Depth	83.5 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	No
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Protective circuit

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Maximum continuous voltage U_C	43 V DC
	30 V AC
Rated current	600 mA (40 °C)
Residual current I_{PE}	$\leq 1 \mu\text{A}$
Nominal discharge current I_n (8/20) μs	10 kA
Pulse discharge current I_{imp} (10/350) μs	2.5 kA
Total discharge current I_{total} (8/20) μs	10 kA
Voltage protection level U_p (line-line)	$\leq 80 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 80 \text{ V}$ (C1 - 1 kV / 500 A, $>1 \mu\text{s}$)
	$\leq 150 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 70 \text{ V}$ (C2 - 10 kV / 5 kA, $>1 \mu\text{s}$)
	$\leq 75 \text{ V}$ (C3 - 100 A)
	$\leq 75 \text{ V}$ (C3 - 100 A, $>1 \mu\text{s}$)
Voltage protection level U_p (line-earth)	$\leq 900 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 100 \text{ V}$ (C1 - 1 kV / 500 A, $>1 \mu\text{s}$)
	$\leq 1 \text{ kV}$ (C2 - 10 kV / 5 kA)
	$\leq 70 \text{ V}$ (C2 - 10 kV / 5 kA, $>1 \mu\text{s}$)
	$\leq 1200 \text{ V}$ (C3 - 100 A)
	$\leq 70 \text{ V}$ (C3 - 100 A, $>1 \mu\text{s}$)
Voltage protection level U_p (line-signalground)	$\leq 90 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 90 \text{ V}$ (C1 - 1 kV / 500 A, $>1 \mu\text{s}$)
	$\leq 170 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 70 \text{ V}$ (C2 - 10 kV / 5 kA, $>1 \mu\text{s}$)
	$\leq 75 \text{ V}$ (C3 - 70 A)
	$\leq 75 \text{ V}$ (C3 - 70 A, $>1 \mu\text{s}$)
Response time t_A (line-line)	$\leq 1 \text{ ms}$
Response time t_A (line-earth)	$\leq 55 \text{ ms}$
Response time t_A (line-signalground)	$\leq 1 \text{ ms}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 10 \text{ MHz}/150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 60 MHz
Capacity (Core-Core)	typ. 25 pF
Capacity (Core-Earth)	typ. 50 pF
Capacity (line-signalground)	typ. 25 pF
Resistance per path	1.65 $\Omega \pm 20 \%$
Surge protection fault message	optical
Max. required back-up fuse	630 mA (FF)
Impulse durability (line-line)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 100 A

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Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 100 A
	D1 - 2.5 kA
Impulse durability (line-signalground)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C2 - 10 kA
	C3 - 70 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m (amsl)
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Standards and regulations

Standards/specifications	IEC 61643-21
Note	2000 + A1:2008 + 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	27171503

ETIM

ETIM 9.0	EC001466
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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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