

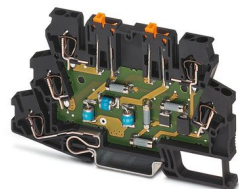
TT-ST-M-2-PE-24DC - Surge protection device



2858904

<https://www.phoenixcontact.com/us/products/2858904>

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TERMITRAB, spring-cage modular terminal block with integrated surge protection and disconnect knives, for assembly on NS 35/7.5, voltage U_N 24 V DC, terminal width: 6.2 mm, cover width: 2.2 mm

Commercial data

Item number	2858904
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	CL02
Product key	CL2224
Catalog page	Page 96 (C-6-2015)
GTIN	4017918938024
Weight per piece (including packing)	32.37 g
Weight per piece (excluding packing)	28.83 g
Customs tariff number	85363030
Country of origin	DE

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Technical data

Product properties

IEC test classification	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Type	Double-level terminal block with disconnect knife
Product type	Surge protection for MCR technology
Number of positions	2
Surge protection fault message	none
Wire pairs per module	1

Insulation characteristics

Overvoltage category	III
Pollution degree	2

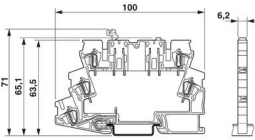
Electrical properties

Nominal voltage U_N	24 V DC
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Connection data

Connection method	Spring-cage connection
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section rigid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 14

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	100 mm
Depth	65.1 mm (incl. DIN rail 7.5 mm)

Material specifications

Flammability rating according to UL 94	V-2
Housing material	PA 6.6

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Mechanical properties

Mechanical data

Open side panel	Yes
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Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	30 V DC
	21 V AC
Rated current	350 mA (45 °C)
Operating effective current I_C at U_C	$\leq 10 \mu A$
Standby power consumption P_C	$\leq 1.78 VA$
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	5 kA
Nominal discharge current I_n (8/20) μs (line-ground)	5 kA
Pulse discharge current I_{imp} (10/350) μs	1 kA (per path)
Total discharge current I_{total} (8/20) μs	10 kA
Total discharge current I_{total} (10/350) μs	2 kA
Max. discharge current I_{max} (8/20) μs maximum (line-line)	5 kA
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	5 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	100 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	200 A (in total)
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 40 V$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 600 V$
Output voltage limitation at 1 kV/ μs (line-line) static	$\leq 40 V$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 600 V$
Residual voltage at I_n (conductor-conductor)	$\leq 40 V$
Voltage protection level U_p (line-line)	$\leq 60 V$ (C2 - 10 kV / 5 kA)
	$\leq 40 V$ (stat.)
Voltage protection level U_p (line-earth)	$\leq 600 V$ (C2 - 10 kV / 5 kA)
Response time t_A (line-line)	$\leq 1 ns$
Response time t_A (line-earth)	$\leq 100 ns$
Input attenuation aE, sym.	typ. 1 dB (400 kHz/50 Ω)
	typ. 0.4 dB (150 kHz / 150 Ω)
	typ. 0.1 dB (30 kHz/600 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ω system	typ. 3 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 1 MHz
Cut-off frequency f_g (3 dB), sym. in 600 Ω system	typ. 250 kHz
Capacity (Core-Core)	4 nF
Capacity (Core-Earth)	2 pF
Resistance per path	6.6 $\Omega \pm 10 \%$
Surge protection fault message	none
Max. required back-up fuse	370 mA
Impulse durability (line-line)	C2 - 10 kV / 5 kA

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Impulse durability (line-earth)	C3 - 100 A
	C2 - 10 kV / 5 kA
	D1 - 1 kA
	C3 - 100 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Altitude	max. 2000 m

Standards and regulations

VDE requirement class	C1
	C2
	C3
	D1

Air clearances and creepage distances

Standards/regulations	EN 60664-1 / IEC 60664-1
Standards/specifications	IEC 61643-21/A1
Note	2008
Standards/specifications	EN 61643-21/A1
Note	2009

Mounting

Mounting type	DIN rail: 35 mm
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