

## Surge protection device - TT-ST-M-2-PE-24AC - 2858920

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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

### Why buy this product

- ✓ Multi-stage modular terminal blocks with spring-cage connection
- ✓ Disconnection of signal circuits by disconnect knife



### Key commercial data

Packing unit	10 pc
GTIN	 4 017918 938147
Weight per Piece (excluding packing)	32.4 g
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### Dimensions

Height	100 mm
Width	6.2 mm
Depth	63.5 mm

#### Ambient conditions

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

#### General

Housing material	PA 6.6
Inflammability class according to UL 94	V2
Color	black

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## Technical data

### General

Standards for air and creepage distances	EN 60664-1
	IEC 60664-1
Surge voltage category	III
Pollution degree	2
Mounting type	DIN rail: 35 mm
Type	Double-level terminal block with disconnect knife
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V AC
Maximum continuous operating voltage $U_C$	45 V DC
	31 V AC
Maximum continuous voltage $U_C$ (wire-wire)	45 V DC
	31 V AC
Nominal current $I_N$	350 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 10 \mu A$
Residual current $I_{PE}$	$\leq 2 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Core)	5 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)	5 kA
Total surge current (8/20) $\mu s$	10 kA
Total surge current (10/350) $\mu s$	2 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Core)	5 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Earth)	5 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Core)	100 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)	200 A (in total)
Impulse discharge current (10/350) $\mu s$ , peak value $I_{imp}$	1 kA (per path)
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) spike	$\leq 55 V$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike	$\leq 600 V$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) static	$\leq 55 V$
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static	$\leq 600 V$
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 55 V$
Voltage protection level $U_P$ (Core-Core)	$\leq 80 V$ (C2 (10 kV/5 kA))

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## Technical data

### Protective circuit

	≤ 40 V (stat.)
Voltage protection level $U_p$ (Core-Earth)	≤ 600 V (C2 (10 kV/5 kA))
Response time $t_A$ (Core-Core)	≤ 1 ns
Response time $t_A$ (Core-Earth)	≤ 100 ns
Input attenuation $aE$ , sym.	typ. 1 dB (400 kHz/50 Ω)
	typ. 0.4 dB (170 kHz/150 Ω)
	typ. 0.1 dB (40 kHz/600 Ω)
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	3.5 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	1.1 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 600 Ohm system	typ. 280 kHz
Capacity (Core-Core)	2 nF
Capacity (Core-Earth)	2 pF
Resistance in series	6.6 Ω ±20 % (per path)
	6.6 Ω
Surge protection fault message	None
Max. required back-up fuse	370 mA
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
	C3 (100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (1 kA)
	C3 (100 A)

### Connection data

Connection method	Spring-cage connection
Connection type IN	Spring-cage
Connection type OUT	Spring-cage
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

## 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

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#### Approvals

GOST / UL Listed / GL

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#### Ex Approvals

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Approvals submitted

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### Approval details

GOST
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UL Listed
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GL
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## Surge protection device - TT-ST-M-2-PE-24AC - 2858920

### Accessories

#### Accessories

##### End cover

End cover - TT-D-STTCO-BK - 2858894



End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black

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### Labeled terminal marker

Zack Marker strip, flat - ZBF 6,LGS:FORTL.ZAHLEN - 0808749



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

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### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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### Terminal marking

Zack Marker strip, flat - ZBF 6:UNBEDRUCKT - 0808710



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

Zack Marker strip, flat - ZBF 6/WH-100:UNBEDRUCKT - 0808736



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 6.2 mm, Lettering field: 5.15 x 6.15 mm

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## Accessories

### Additional products

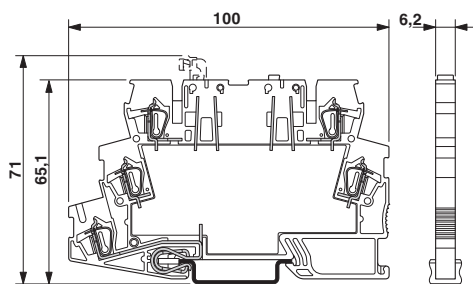
End cover - TT-D-STTCO-BK - 2858894



End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black

## Drawings

Dimensioned drawing



Circuit diagram

