


# TT-ST-2/2-24DC

Order No.: 2858881



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2858881>

Spring cage modular terminal block with integrated surge protection,  
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	
GTIN (EAN)	 4 017918 939137
sales group	J301
Pack	10 pcs.
Customs tariff	85363030
Catalog page information	Page 109 (TT-2011)

#### Product notes

WEEE/RoHS-compliant since:  
06/01/2006



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Technical data	
<b>General</b>	
Housing material	PA 6.6
Inflammability class acc. to UL 94	V2
Color	black

Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1: 1992-10
Surge voltage category	III
Pollution degree	2
Total surge current (8/20) $\mu$ s	10 kA
Total surge current (10/350) $\mu$ s	2 kA
Ambient temperature (operation)	-40 °C ... 85 °C
Mounting type	DIN rail: 35 mm
Design	Double-level terminal block
Number of positions	2
Degree of protection	IP20
Direction of action	Line-Earth Ground
Width	6.20 mm
Height	63.50 mm
Length	100.00 mm

**Protective circuit**

IEC category	C1
	C2
	C3
	D1
VDE requirement class	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-ground)	30 V DC
	21 V AC
Nominal current $I_N$	300 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 10 \mu$ A (per path)
Ground conductor current $I_{PE}$	$\leq 20 \mu$ A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Earth)	5 kA
Total surge current (8/20) $\mu$ s	10 kA

Max. discharge surge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Earth)	5 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)	100 A
	200 A (in total)
Lightning test current (10/350) $\mu s$ , peak value $I_{imp}$	1 kA (per path)
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike	$\leq 40$ V
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static	$\leq 40$ V
Residual voltage at $I_n$ , (conductor-ground)	$\leq 40$ V
Residual voltage with $I_{an}$ (10/1000) $\mu s$ (conductor-ground)	$\leq 45$ V
Protection level $U_p$ (Core-Earth)	$\leq 80$ V (C2 (10 kV/5 kA))
	$\leq 40$ V (static)
Response time $t_A$ (Core-Earth)	$\leq 1$ ns
Input attenuation aE, asym.	0.6 dB (< 500 kHz)
	0.1 dB (up to 170 MHz, 150 $\Omega$ system)
	0.1 dB (up to 40 kHz, 600 $\Omega$ system)
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 50 Ohm system	Typ. 3 MHz
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system	Typ. 1 MHz
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 600 Ohm system	Typ. 250 kHz
Capacity (Core-Earth)	2 nF
Resistance in series	9.4 $\Omega \pm 10$ % (per path)
	9.4 $\Omega$
Max. required back-up fuse	315 mA
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (1 kA)

#### Connection data

Connection method	Spring-cage connection
Connection type IN	Spring-cage
Connection type OUT	Spring-cage
Conductor cross section stranded min.	0.5 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>

Conductor cross section solid min.	0.5 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

**Connection, protective circuit**

Standards/regulations	IEC 61643-21
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**Certificates / Approvals**



Certification GOST

**Accessories**

Item	Designation	Description
<b>General</b>		
2858894	TT-D-STTCO-BK	End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black
<b>Marking</b>		
1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
0808749	ZBF 6,LGS:FORTL.ZAHLEN	Zack marker strip, flat, printed horizontally: 10-section, with the numbers 1 - 10, 11 - 20, and so on up to 91 - 100, color: white
0808736	ZBF 6/WH-100:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, large batch, sufficient for labeling 1000 terminal blocks, color: white
0808710	ZBF 6:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, sufficient for 100 terminal blocks, color: white

**Additional products**

Item	Designation	Description
<b>Assembly</b>		
2839295	SSA 3-6	shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

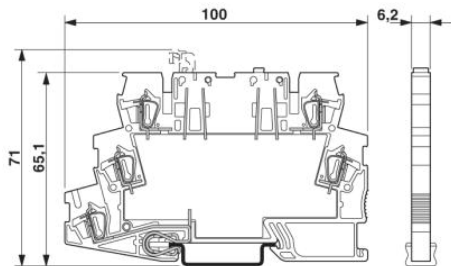
2839512	SSA 5-10	Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black
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**General**

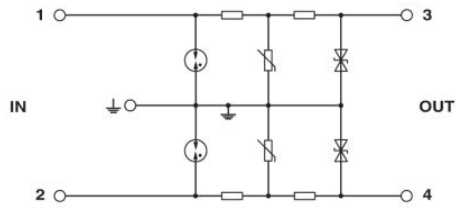
2858894	TT-D-STTCO-BK	End cover for TERMITRAB TT-ST-..., width: 2.2 mm, color: Black
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**Diagrams/Drawings**

Dimensioned drawing



Circuit diagram



**Address**

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