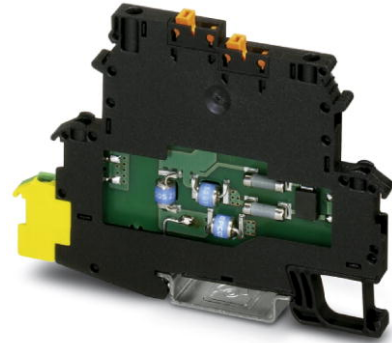


# TT-2-PE-M-24DC

Order No.: 2920641




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2920641>

Modular terminal block with two-stage surge protection for one operated floating double conductor, disconnect knife on both signal paths, separate ground connection, nominal voltage: 24 V DC.



## Commercial data

GTIN (EAN)	 4 046356 160193
sales group	J304
Pack	14 pcs.
Customs tariff	85363010
Catalog page information	Page 106 (TT-2011)

## Product notes

WEEE/RoHS-compliant since:  
09/28/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

## Technical data

### General

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

Total surge current (8/20) $\mu$ s	10 kA
Total surge current (10/350) $\mu$ s	1 kA
Ambient temperature (operation)	-40 °C ... 80 °C
Mounting type	DIN rail: 35 mm
Design	Double-level terminal block with PE foot – separate PE connection
Number of positions	2
Degree of protection	IP20
Direction of action	Line-Line & Line-Earth Ground
Width	6.20 mm
Height	66.45 mm
Length	92.00 mm
<b>Protective circuit</b>	
IEC category	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V DC
	17 V AC
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 $I_N$	300 mA (40°C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu$ A
Ground conductor current $I_{PE}$	$\leq 2 \mu$ A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Core)	5 kA
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-Core)	5 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	5 kA (per path)
Nominal pulse current $I_{an}$ (10/1000) $\mu$ s (Core-Core)	30 A

Nominal pulse current $I_{an}$ (10/1000) $\mu$ s (Core-Earth)	100 A (per path)
Lightning test current (10/350) $\mu$ s, peak value $I_{imp}$	500 A (per path)
Output voltage limitation at 1 kV/ $\mu$ s (Core-Core) spike	$\leq 45$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) spike	$\leq 650$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Core) static	$\leq 45$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) static	$\leq 650$ V
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 45$ V
Residual voltage with $I_{an}$ (10/1000) $\mu$ s (conductor-conductor)	$\leq 50$ V
Protection level $U_p$ (Core-Core)	$\leq 55$ V (C2 (10 kV/5 kA)) $\leq 53$ V (C1 (500 V/250 A))
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Input attenuation aE, sym.	0.6 dB ( $\leq 500$ kHz / 50 $\Omega$ ) 0.2 dB ( $\leq 200$ kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	Typ. 6 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	Typ. 2 MHz
Capacity (Core-Core)	Typ. 2.5 nF
Resistance in series	3.3 $\Omega$ 20 % 3.3 $\Omega$
Max. required back-up fuse	315 mA (e.g. T in acc. with IEC 127-2/III)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA) D1 (500 A)
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	5 A - 1 s
<b>Connection data</b>	
Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks

Screw thread	M3
Tightening torque	0.8 Nm
Stripping length	8 mm
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.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14

**Connection, protective circuit**

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



Certification GOST

**Accessories**

Item	Designation	Description
<b>General</b>		
2920654	TT-D-2-PE-M-BK	End cover for TERMITRAB TT-2-PE-M-... and TT-2/2-M-...

**Marking**

1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
1051016	ZB 6,LGS:FORTL.ZAHLEN	Zack marker strip, 10-section, printed horizontally: with the numbers 1 - 10, 11 - 20 and so on up to 491 - 500, color: white
1051430	ZB 6,LGS:U-N	Zack strip, printed horizontally: 10-section, U, V, W, N, GND, U, V, W, N, GND, color: white
1050499	ZB 6:SO/CMS	Zack strip, 10-section, divisible, special printing, marking according to customer requirements
1051003	ZB 6:UNBEDRUCKT	Zack strip, unprinted, strips with 10 labels for individual labeling with M-PEN or CMS system, for terminal block width: 6.2 mm, color: white

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

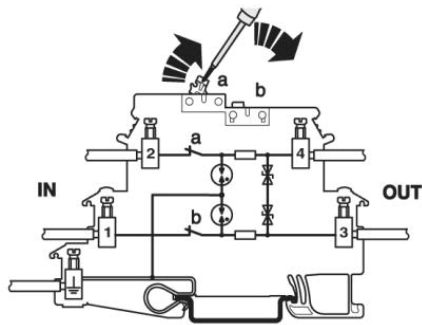
Item	Designation	Description
<b>Assembly</b>		
2839295	SSA 3-6	shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black
2839512	SSA 5-10	Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

#### General

2920654	TT-D-2-PE-M-BK	End cover for TERMITRAB TT-2-PE-M-... and TT-2/2-M-...
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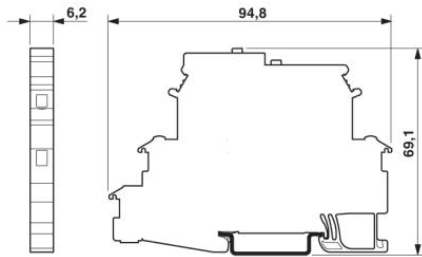
#### Diagrams/Drawings

Connection diagram



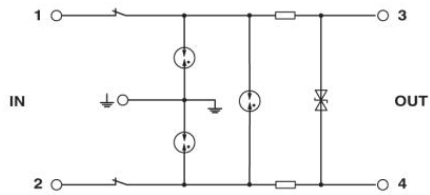
Dimensioned drawing

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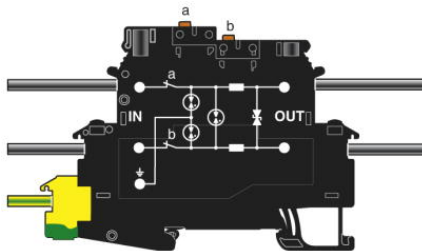
Circuit diagram

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Schematic diagram

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**Address**

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