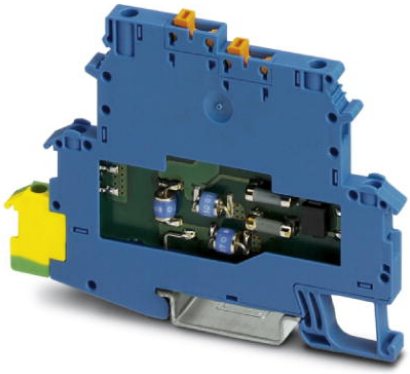
Extract from the online catalog

TT-EX(I)-M-24DC

Order No.: 2803865



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Modular terminal block with two-stage surge protection for a floating Ex-i signal circuit, disconnect knife on both signal paths, separate PE connection, nominal voltage: 24 V DC

Commercial data	
GTIN (EAN)	4 046356 310550
sales group	J305
Pack	14 pcs.
Customs tariff	85363010
Catalog page information	Page 107 (TT-2011)

Product notes

WEEE/RoHS-compliant since: 09/03/2007

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Technical data

General

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

Standards for air and creepage distances	EN 50020
	VDE 0110-1
Total surge current (8/20) µs	10 kA
Total surge current (10/350) µs	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

Protective circuit

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 UC (wire-wire)	30 V DC
	21 V AC
Nominal current I_N	250 mA (T_A < 40 °C)
Operating effective current I_C at U_C	≤ 5 µA
Ground conductor current I_{PE}	≤ 1 µA
Nominal discharge surge current I_n (8/20) µs (Core-Core)	5 kA
Nominal discharge surge current I_n (8/20) µs (Core-Earth)	5 kA
Total surge current (8/20) µs	10 kA
Max. discharge surge current Imax (8/20) µs maximum (Core-Core)	5 kA
Max. discharge surge current Imax (8/20) µs maximum (Core-Earth)	5 kA (per path)

Nominal pulse current Ian (10/1000) µs (Core-Core)	100 A
Nominal pulse current Ian (10/1000) µs (Core-Earth)	100 A (per path)
Lightning test current (10/350) µs, peak value I_{imp}	500 A (per path)
Output voltage limitation at 1 kV/µs (Core-Core) spike	≤ 44 V
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 1.5 kV
Output voltage limitation at 1 kV/µs (Core-Core) static	≤ 44 V
Output voltage limitation at 1 kV/µs (Core-Earth) static	≤ 1.5 kV
Residual voltage at I_n, (conductor-conductor)	≤ 40 V
Residual voltage at I_n, (conductor-ground)	≤ 110 V
Protection level U_P (Core-Core)	≤ 70 V (C2 (10 kV/5 kA))
Protection level U_P (Core-Earth)	≤ 1.5 kV (C2 (10 kV/5 kA))
Response time tA (Core-Core)	≤ 1 ns
Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	1 dB (≤ 1 MHz / 50 Ω)
	0.3 dB (≤ 200 kHz / 150 Ω)
Cut-off frequency fg (3 dB), sym. in 50 Ohm system	Typ. 6 MHz
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	Typ. 2 MHz
Resistance in series	4.7 Ω ±10 %
	4.7 Ω
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)

Connection data

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 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14

Connection, protective circuit

Standards/regulations	IEC 61643-21

General

Maximum inner capacitance C_i	2 nF
Maximum inner inductance L_i	1 µH
Maximum inner time factor (R_i/L_i)	0.1 µs
Max. input current I_i	250 mA
Max. input voltage U_i	30 V
Maximum input power Pi	0.75 W
Insulation voltage to ground	500 V 10 %

Conformity / approvals

ATEX	Ex II 1G Ex ia IIC T4...T6 Ga
	Ex II 1D Ex ia IIIC T135°C...T85°C Da
IECEx	Ex ia IIC T4...T6 Ga
	Ex ia IIIC T135°C...T85°C Da

Certificates / Approvals

Certification Ex: KEMA-EX

Accessories

Item	Designation	Description
General		
2803878	TT-D-2-PE-M-BU	End cover for TERMITRAB TT-EX(I)-M-..., color: Blue

Marking

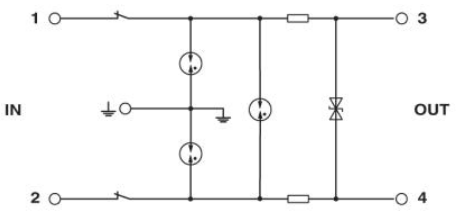
1051993	B-STIFT	Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm
1051016	ZB 6,LGS:FORTL.ZAHLEN	Zack marker strip, 10-section, printed horizontally: with the numbers 1 - 10, 11 - 20 and so on up to 491 - 500, color: white
1051430	ZB 6,LGS:U-N	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
Assembly		
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		
2803878	TT-D-2-PE-M-BU	End cover for TERMITRAB TT-EX(I)-M-..., color: Blue

Diagrams/Drawings

Circuit diagram



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