

Surge protection connector - CTM 1X2- 24DC - 2838513

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LSA-PLUS plug (COMTRAB CTM) with protection for conductor pairs in floating signal circuits.
Nominal voltage: 24 V DC

Product Features

- ✓ Can be used in LSA-PLUS disconnect and control strips or CT-TERMIBLOCK
- ✓ The CTM 10-MAG surge protection magazine can be freely fitted with various protective plugs
- ✓ Space-saving LSA-PLUS connection technology
- ✓ Typical installation locations include marshalling distributors
- ✓ Modular compact protection for high-density networks



Key commercial data

package_quantity	10
GTIN	4017918819545

Technical data

Dimensions

Height	21 mm
Width	9.5 mm
Depth	53.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 75 °C
Degree of protection	IP20

General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	DIN VDE 0110-1
Standards for air and creepage distances	IEC 60664-1
Surge voltage category	II
Pollution degree	2
Mounting type	On CT-TERMIBLOCK and LSA-PLUS disconnect strip

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Technical data

General

Design	LSA-PLUS module
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10

Protective circuit

IEC test classification	B2
IEC test classification	C1
IEC test classification	C2
IEC test classification	C3
IEC test classification	D1
VDE requirement class	B2
VDE requirement class	C1
VDE requirement class	C2
VDE requirement class	C3
VDE requirement class	D1
Nominal voltage U_N	24 V DC
Maximum continuous operating voltage U_C	± 30 V DC
Maximum continuous operating voltage U_C	21 V AC
Maximum continuous voltage U_C (wire-wire)	± 30 V DC
Maximum continuous voltage U_C (wire-wire)	21 V AC
Maximum continuous voltage U_C (wire-ground)	72 V DC
Nominal current I_N	380 mA (25 °C)
Operating effective current I_C at U_C	≤ 5 μ A
Residual current I_{PE}	≤ 2 μ A
Nominal discharge current I_n (8/20) μ s (Core-Core)	5 kA
Nominal discharge current I_n (8/20) μ s (Core-Earth)	5 kA
Total surge current (8/20) μ s	10 kA
Total surge current (10/350) μ s	2.5 kA
Max. discharge current I_{max} (8/20) μ s maximum (Core-Earth)	10 kA (in total)
Nominal pulse current I_{an} (10/1000) μ s (Core-Core)	100 A
Nominal pulse current I_{an} (10/1000) μ s (Core-Earth)	100 A
Impulse discharge current (10/350) μ s, peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/ μ s (Core-Core) spike	≤ 70 V
Output voltage limitation at 1 kV/ μ s (Core-Earth) spike	≤ 700 V
Output voltage limitation at 1 kV/ μ s (Core-Core) static	≤ 70 V
Output voltage limitation at 1 kV/ μ s (Core-Earth) static	≤ 700 V
Residual voltage at I_n , (conductor-conductor)	≤ 45 V
Residual voltage at I_n , (conductor-ground)	≤ 60 V
Residual voltage with I_{an} (10/1000) μ s (conductor-conductor)	≤ 25 V
Residual voltage with I_{an} (10/1000) μ s (conductor-ground)	≤ 12 V

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Protective circuit

Voltage protection level U_p (Core-Core)	≤ 70 V (C2, 10 kV/5 kA, spike)
Voltage protection level U_p (Core-Core)	≤ 45 V (C2, 10 kV/5 kA, static)
Voltage protection level U_p (Core-Core)	≤ 45 V (C3, 7.5 kV/100 A, spike)
Voltage protection level U_p (Core-Core)	≤ 25 V (C3, 7.5 kV/100 A, static)
Voltage protection level U_p (Core-Earth)	≤ 700 V (C2, 10 kV/5 kA, spike)
Voltage protection level U_p (Core-Earth)	≤ 60 V (C2, 10 kV/5 kA, static)
Voltage protection level U_p (Core-Earth)	≤ 700 V (C3, 7.5 kV/100 A, spike)
Voltage protection level U_p (Core-Earth)	≤ 12 V (C3, 7.5 kV/100 A, static)
Response time t_A (Core-Core)	≤ 1 ns
Response time t_A (Core-Earth)	≤ 100 ns
Input attenuation a_E , sym.	0.3 dB (≤ 600 kHz)
Cut-off frequency f_g (3 dB), sym. in 100 Ohm system	2.7 MHz
Capacity (Core-Core)	1.2 nF ($f=1$ MHz / $V_R=0$ V)
Resistance in series	3.3 Ω 10 %
Resistance in series	3.3 Ω
Message: Surge protection fault	None
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (4 kV/2 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C3 (100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	B2 (4 kV / 100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (4 kV / 2 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C3 (100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	B2 (4 kV / 100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	D1 (1 kA)
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	5 A - 1 s

Connection data

Connection method	can be plugged into COMTRAB-TERMI BLOCK and LSA-PLUS disconnect and switching strips
Connection type IN	COMTRAB plug-in system
Connection type OUT	COMTRAB plug-in system
Connection method	LSA-PLUS

Connection, equipotential bonding

Connection method	Spring contact
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Standards and Regulations

Standards/regulations	IEC 61643-21
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classifications

eCl@ss

eCl@ss 4.0	27140201
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classifications

eCl@ss

eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
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

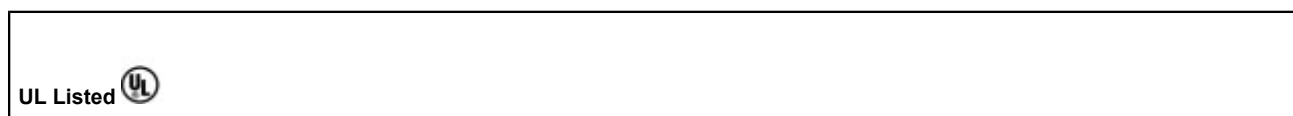
UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

approvals

GOST / UL Listed /

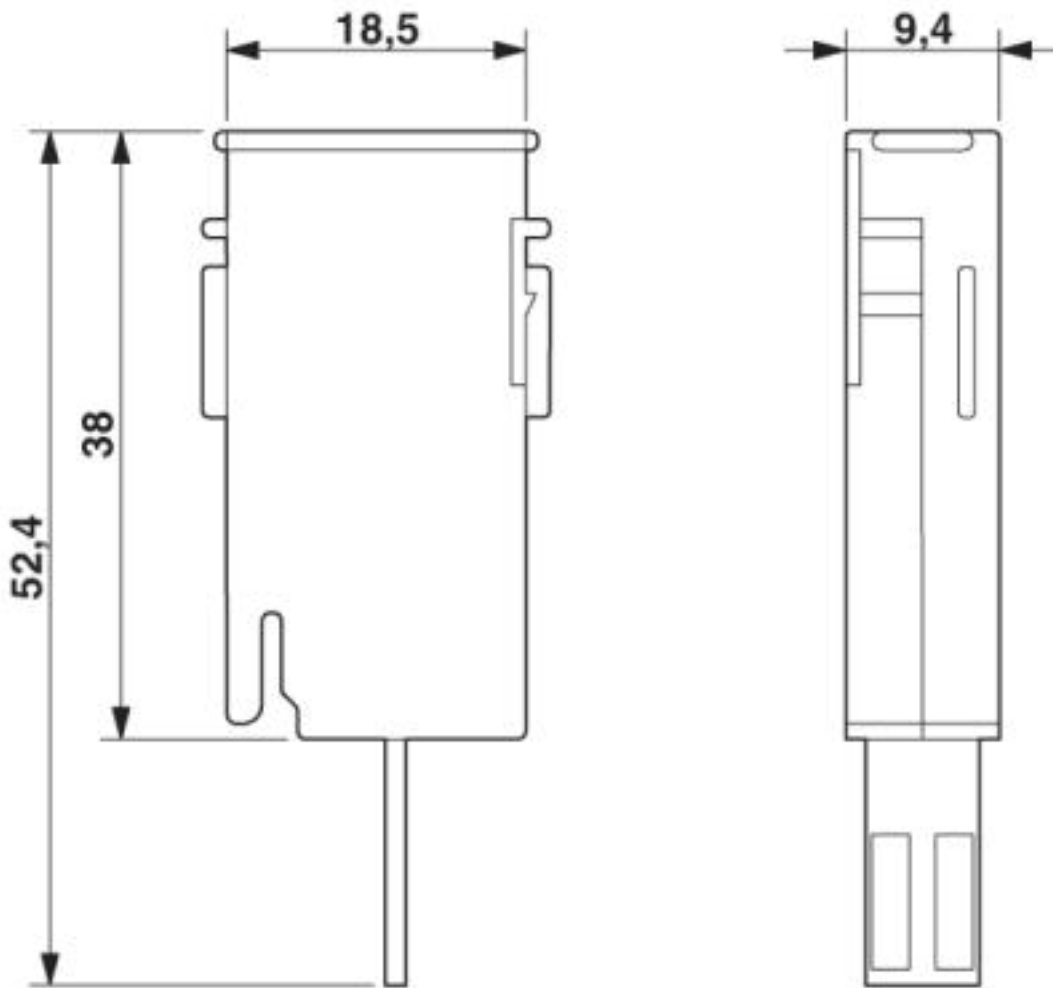
Approval details



Drawings

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Dimensioned drawing



Circuit diagram

