

Surge protection connector - CTM 2X1-180DC-GS-P - 2838623

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LSA-PLUS protective plug (COMTRAB CTM) with power cross and coarse surge protection for 2 signal lines. Nominal voltage: 180 V DC

Product Features

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



Key commercial data

package_quantity	10
GTIN	4017918948375

Technical data

Dimensions

Height	21 mm
Width	9.5 mm
Depth	53.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °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
Direction of action	Line-Line & Line-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 2.20
Near-end crosstalk attenuation aN between adjacent articles	70 dB (up to 1 MHz 100 Ω system)
Near-end crosstalk attenuation aN between adjacent articles	50 dB (up to 10 MHz 100 Ω system)
Near-end crosstalk attenuation aN between adjacent articles	30 dB (up to 100 MHz, 100 Ω system)

Protective circuit

IEC test classification	A2
IEC test classification	B1
IEC test classification	B2
IEC test classification	B3
IEC test classification	C1
IEC test classification	C2
IEC test classification	C3
IEC test classification	D1
IEC test classification	D2
VDE requirement class	A2
VDE requirement class	B1
VDE requirement class	B2
VDE requirement class	B3
VDE requirement class	C1
VDE requirement class	C2
VDE requirement class	C3
VDE requirement class	D1
VDE requirement class	D2
Nominal voltage U_N	180 V DC
Maximum continuous operating voltage U_C	± 180 V DC
Maximum continuous voltage U_C (wire-ground)	± 180 V DC
Nominal current I_N	120 mA (25 °C)
Operating effective current I_C at U_C	≤ 2 μ A
Residual current I_{PE}	≤ 2 μ A
Nominal discharge current I_n (8/20) μs (Core-Earth)	5 kA
Total surge current (8/20) μs	10 kA
Total surge current (10/350) μs	2.5 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA (in total)
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	200 A
Impulse discharge current (10/350) μs, peak value I_{imp}	1 kA
Output voltage limitation at 1 kV/μs (Core-Earth) spike	≤ 800 V
Output voltage limitation at 1 kV/μs (Core-Earth) static	≤ 800 V
Residual voltage at I_n, (conductor-ground)	≤ 70 V

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Protective circuit

Residual voltage with I_{an} (10/1000) μ s (conductor-ground)	≤ 28 V
Voltage protection level U_p (Core-Earth)	≤ 900 V (C2, 10 kV/5 kA, spike)
Voltage protection level U_p (Core-Earth)	≤ 70 V (C2, 10 kV/5 kA, static)
Voltage protection level U_p (Core-Earth)	≤ 1 kV (C3, 7.5 kV/100 A, spike)
Voltage protection level U_p (Core-Earth)	≤ 30 V (C3, 7.5 kV/100 A, static)
Response time t_A (Core-Earth)	≤ 100 ns
Input attenuation a_E , asym.	0.5 dB (≤ 10 MHz)
Input attenuation a_E , asym.	0.6 dB (up to 60 MHz in 100 Ω system)
Input attenuation a_E , asym.	1 dB (Up to 100 MHz, 100 Ω)
Cut-off frequency f_g (3 dB), asym. (PE) in 100 Ohm system	> 100 MHz
Capacity (Core-Earth)	5 pF ($f=1$ MHz / $V_R=0$ V)
Resistance in series	5.5 Ω +/- 1.5 Ω (symmetry: +/- 0.5 Ω)
Resistance in series	5.5 Ω (+/- 1.5 Ω)
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-TERMIBLOCK 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
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

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classifications

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 /

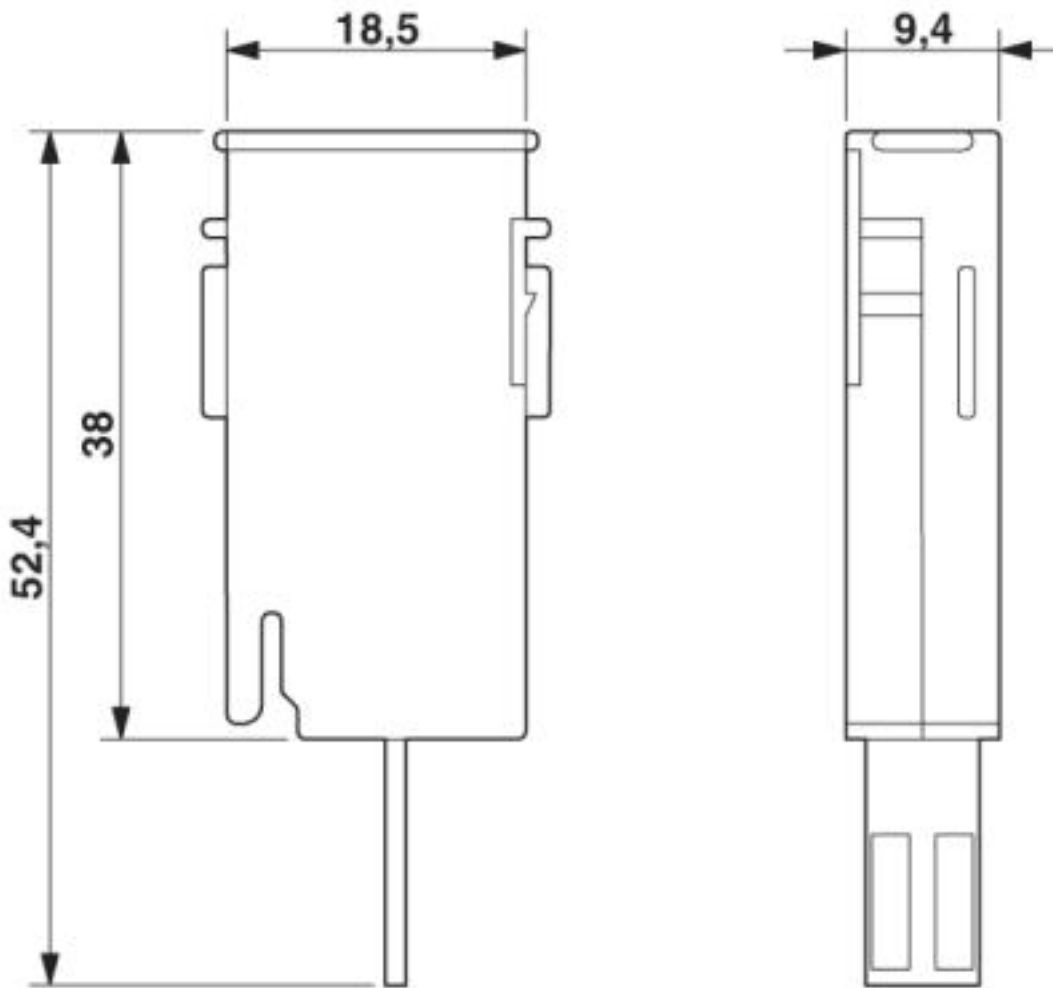
Approval details



Drawings

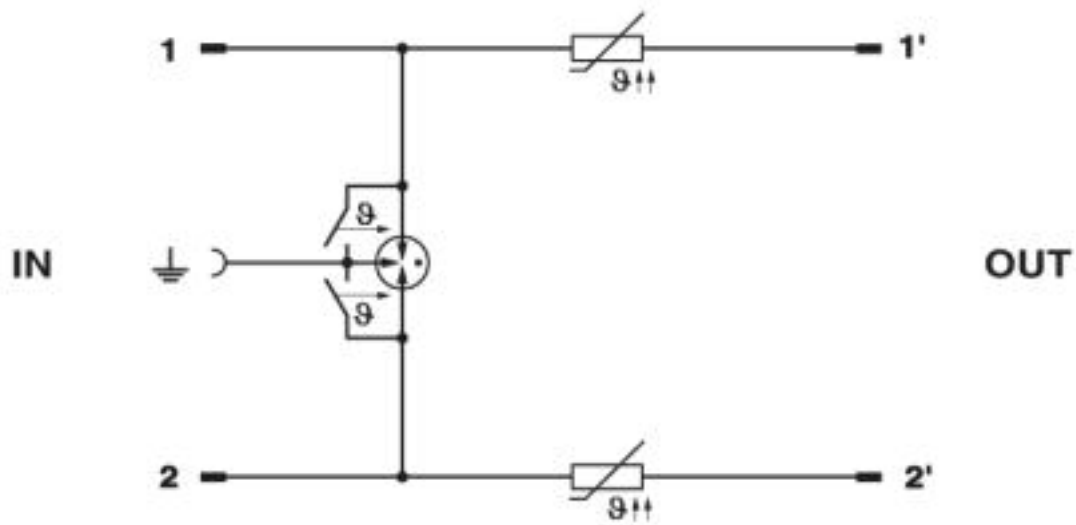
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Dimensioned drawing



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Circuit diagram



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