

Surge protection plug - CTM 1X2- 60DC - 2838568

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LSA-PLUS plug (COMTRAB CTM) with protection for conductor pairs in floating signal circuits. Nominal voltage: 60 V DC

Your advantages

- ✓ 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
- ✓ Space-saving LSA-PLUS connection technology
- ✓ Typical installation locations include marshalling distributors
- ✓ Modular compact protection for high-density networks



Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 819736
GTIN	4017918819736

Technical data

Dimensions

Height	21 mm
Width	9.4 mm
Depth	52.4 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 75 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Degree of protection	IP20

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005

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Technical data

General

Overvoltage category	II
Degree of pollution	2
Mounting type	On CT-TERMIBLOCK and LSA-PLUS disconnect strip
Type	LSA-PLUS module
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
	C1
	C2
	C3
	D1
Nominal voltage U_N	60 V DC
Maximum continuous voltage U_C	60 V DC
	50 V AC
Rated current	380 mA AC (25 °C)
	150 mA DC (25 °C)
Operating effective current I_C at U_C	$\leq 70 \mu A$
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	5 kA
Nominal discharge current I_n (8/20) μs (line-earth)	5 kA
Pulse discharge current I_{imp} (10/350) μs (line-earth)	1 kA
Total discharge current I_{total} (8/20) μs	10 kA
Total discharge current I_{total} (10/350) μs	2.5 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	100 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	100 A
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 160 V$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 700 V$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 700 V$
Residual voltage at I_n (line-line)	$\leq 95 V$
Residual voltage at I_n (line-earth)	$\leq 60 V$
Residual voltage with I_{an} (10/1000) μs (line-line)	$\leq 35 V$
Residual voltage with I_{an} (10/1000) μs (line-earth)	$\leq 12 V$
Voltage protection level U_p (line-line)	$\leq 200 V$ (C2 - 10 kV / 5 kA)
	$\leq 160 V$ (C3 - 100 A)
Voltage protection level U_p (line-earth)	$\leq 700 V$ (C2 - 10 kV / 5 kA)
	$\leq 700 V$ (C3 - 100 A)
Voltage protection level U_p static (line-line)	$\leq 95 V$ (C2 - 10 kV / 5 kA)
	$\leq 35 V$ (C3 - 100 A)

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Technical data

Protective circuit

Voltage protection level U_p static (line-earth)	≤ 90 V (C2 - 10 kV / 5 kA)
	≤ 12 V (C3 - 100 A)
Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (≤ 500 kHz / 100 Ω)
Cut-off frequency f_g (3 dB), sym. in 100 Ohm system	typ. 2 MHz
Capacity (line-line)	typ. 1.2 nF
Resistance per path	3.3 Ω 20 %
Surge protection fault message	none
Impulse durability (line-line)	B2 - 4 kV / 100 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
Impulse durability (line-earth)	B2 - 4 kV / 100 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 1 kA
Alternating current carrying capacity (line-earth)	5 A - 1 s

Connection data

Connection method	can be plugged into COMTRAB-TERMIBLOCK and LSA-PLUS disconnect and switching strips
Connection method IN	COMTRAB plug-in system
Connection method OUT	COMTRAB plug-in system
Connection technology	LSA-PLUS

Connection, equipotential bonding

Connection method	Spring contact
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Standards and Regulations

Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

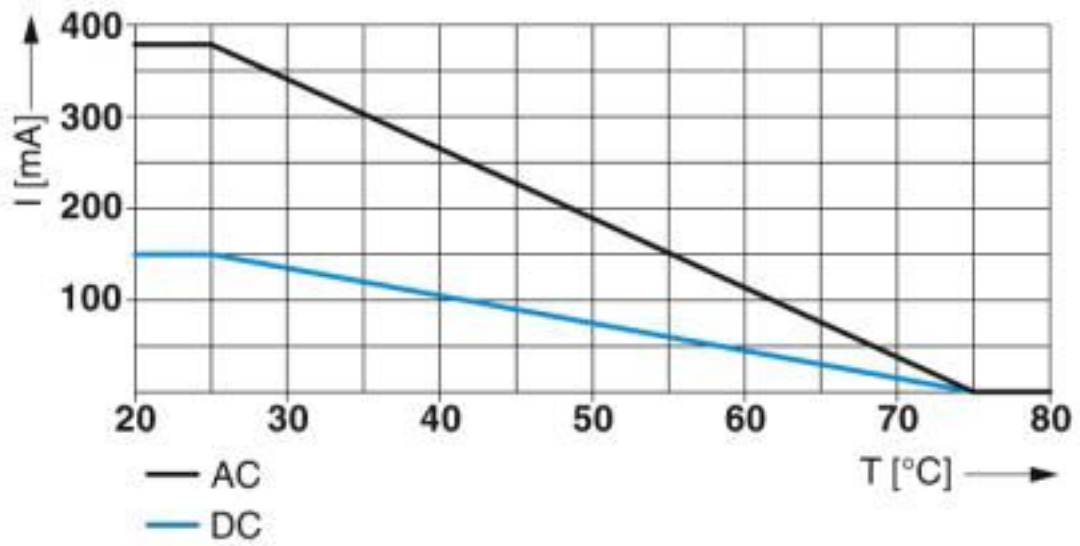
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

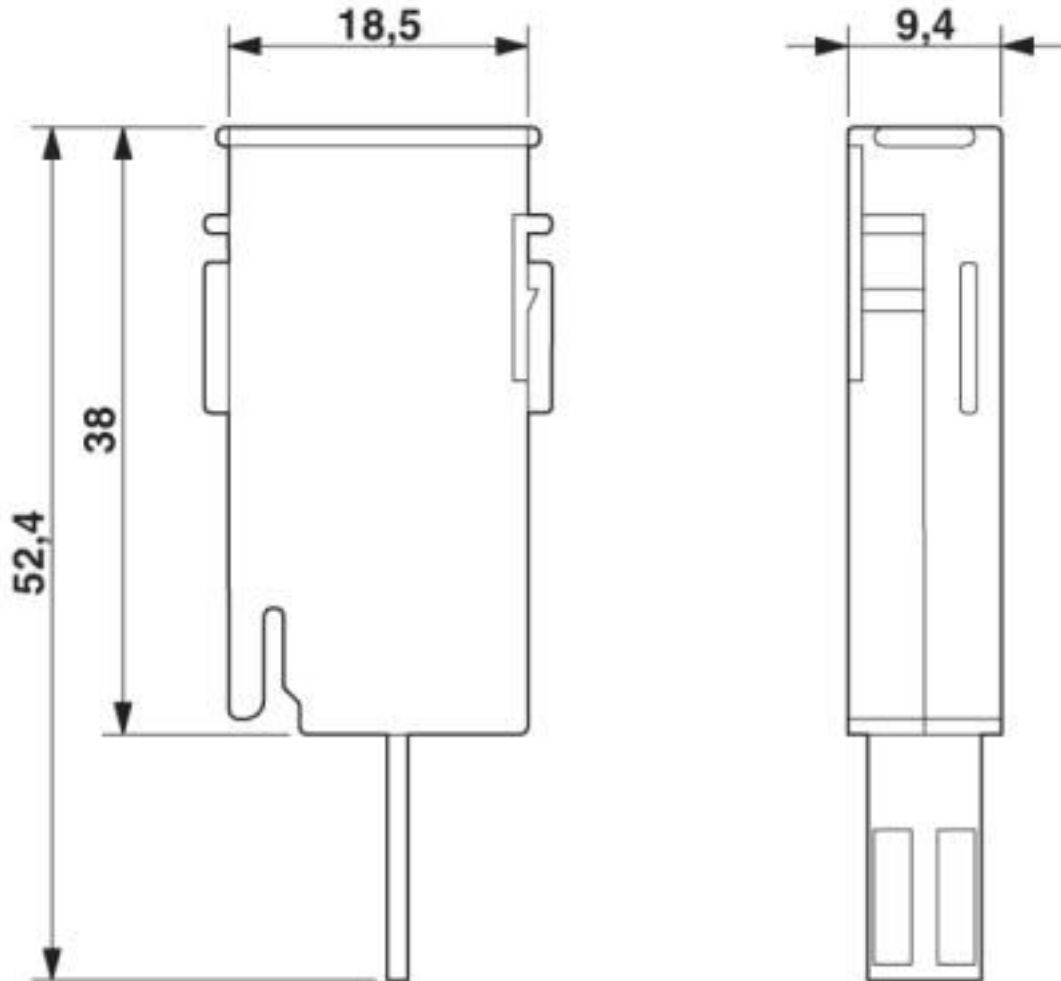
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Diagram

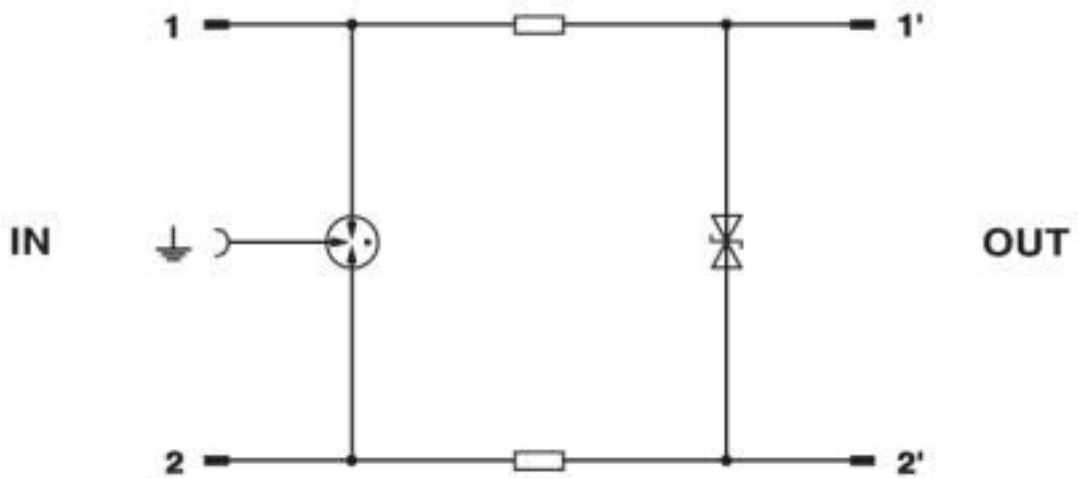


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Dimensional drawing



Circuit diagram



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Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

UL Listed / EAC

Ex Approvals

Approval details

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Approvals

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 138168
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EAC		RU C- DE.*09.B.00169
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Accessories

Necessary add-on products

Disconnect strip - CT 10-TL - 2765356



LSA-PLUS disconnect strip to hold the CTM and CT 10 protection modules. Version: 10 double conductors, dimension A: 124 mm.

Grounding rail - CT 1-10-ES - 2765547



Ground rail for CTM protective plug when used in combination with LSA-PLUS disconnect strip. Version: 10 double conductors

Screw termination block - CT-TERMIBLOCK 10 DA - 0441711



Screw termination block with disconnect contacts for accommodating protective plugs CT and CTM. Use in MCR and telecommunications systems. Design: 10 double wires

Magazine - CTM 10-MAG - 2838610



Magazine with a grounding rail to accommodate up to 10 LSA-PLUS protective plugs (COMTRAB CTM), to insert in CT-TERMIBLOCK or LSA-PLUS disconnect strip

Additional products

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Accessories

Mounting clip - CT 10-MB/ 3 - 2765372



Mounting clip, for holding 3 disconnect or ground wire strips. Version: 10 double conductors, dimensions: A 104.5 mm, B 65 mm.

Mounting clip - CT 10-MB/10 - 2765385



Mounting clip, for holding 10 disconnect or ground wire strips. Version: 10 double conductors, dimensions: A 104.5 mm, dimensions B 245.5 mm

Cable feed-through sleeve - CT-KDT - 2765518



Cable bush for assembly troughs, for protection of the lines guided through the laminated frame

Short-circuit connector - CTM EST - 2838649



LSA-PLUS grounding plug (COMTRAB CTM) to short-circuit and ground potentials in CT-TERMIBLOCK... and disconnect strip CT 10...

Shield connection - SSA 3-6 - 2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

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Accessories

Shield connection - SSA 5-10 - 2839512



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

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