

Surge protection plug - CTM 2X1- 60DC - 2838542

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LSA-PLUS plug with protective circuit for 2-conductor signal circuits grounded on one side. 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
- ✓ Typical installation locations include marshalling distributors
- ✓ Space-saving LSA-PLUS connection technology
- ✓ Modular compact protection for high-density networks

RoHS


60V

IP20

IEC



Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 819576
GTIN	4017918819576
Weight per Piece (excluding packing)	10.580 g
Custom tariff number	85363010
Country of origin	Germany

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

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Technical data

General

Housing material	PA 6.6
Flammability rating according to UL 94	V-0
Color	jet black RAL 9005
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-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-earth)	100 A
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 160 V$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 160 V$
Residual voltage at I_n (line-earth)	$\leq 95 V$
Residual voltage with I_{an} (10/1000) μs (line-earth)	$\leq 16 V$
Voltage protection level U_p (line-earth)	$\leq 240 V$ (C2 - 10 kV / 5 kA)
	$\leq 150 V$ (C3 - 100 A)
Voltage protection level U_p static (line-earth)	$\leq 85 V$ (C2 - 10 kV / 5 kA)
	$\leq 16 V$ (C3 - 100 A)
Response time t_A (line-earth)	$\leq 1 ns$
Input attenuation aE, asym.	typ. 0.3 dB ($\leq 500 kHz / 100 \Omega$)
Cut-off frequency f_g (3 dB), asym. (PE) in 100 Ohm system	typ. 2 MHz
Capacity (line-earth)	typ. 1 nF

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Technical data

Protective circuit

Resistance per path	3.3 Ω 20 %
Surge protection fault message	none
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

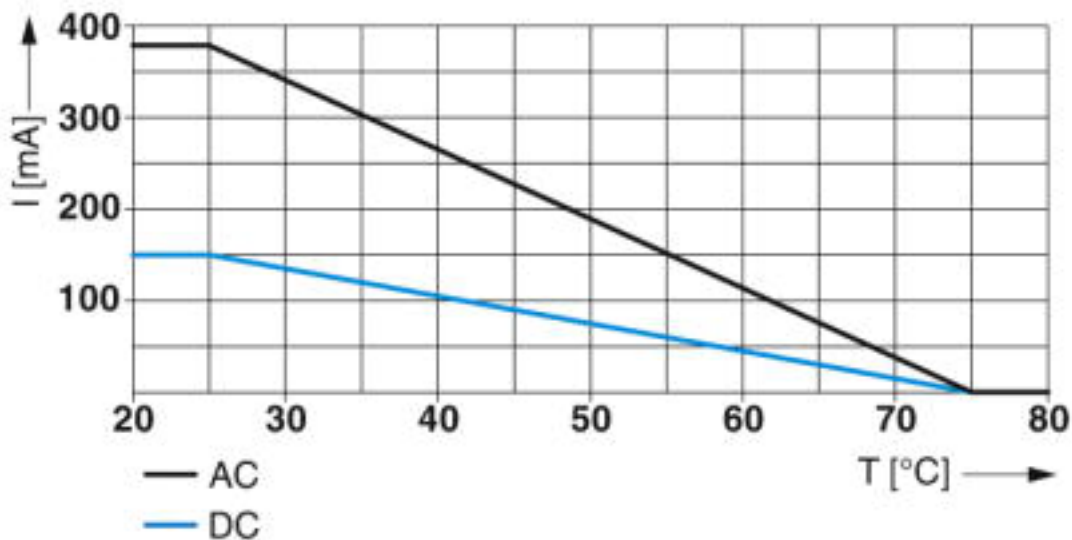
Standards/specifications	IEC 61643-21 2000 + corrigendum 2001 + A1:2008, modified + A2:2012
	EN 61643-21 2001 + A1:2009 + A2:2013

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

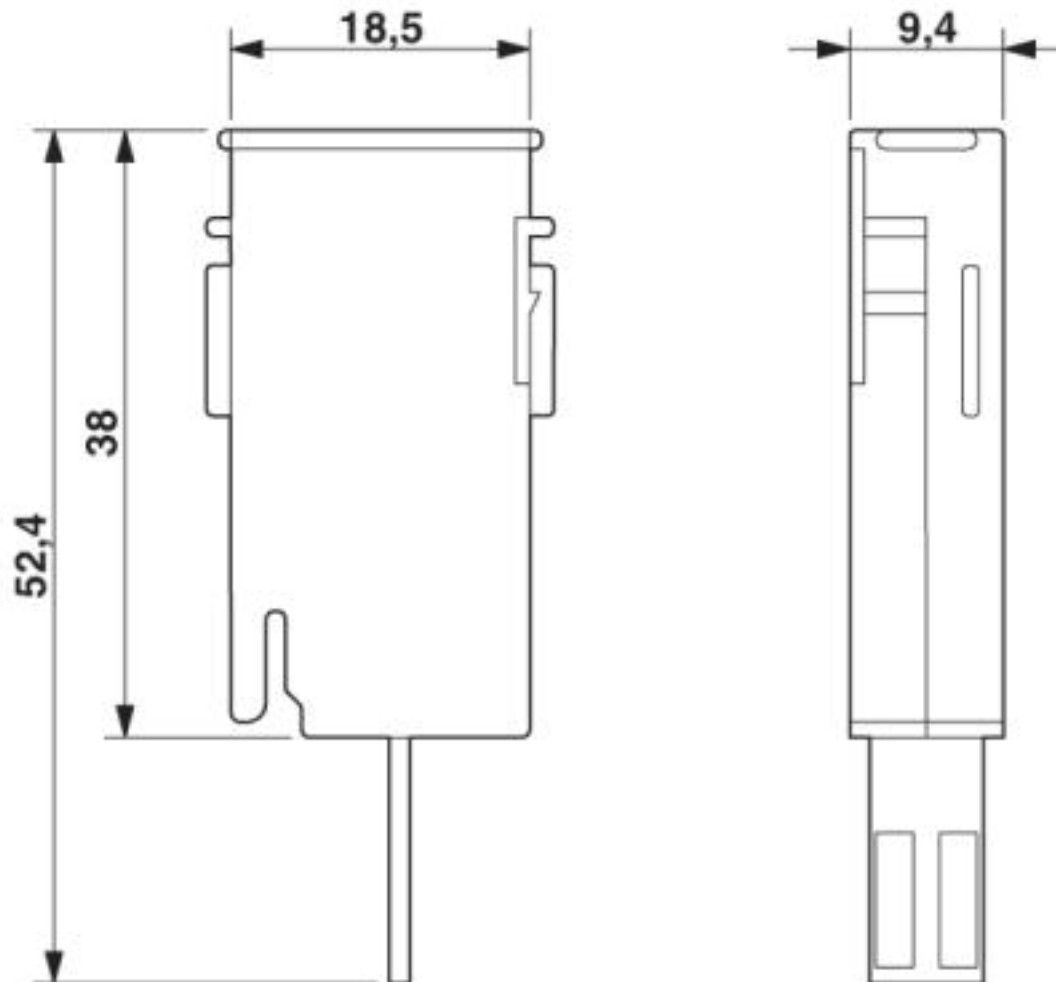
Drawings

Diagram



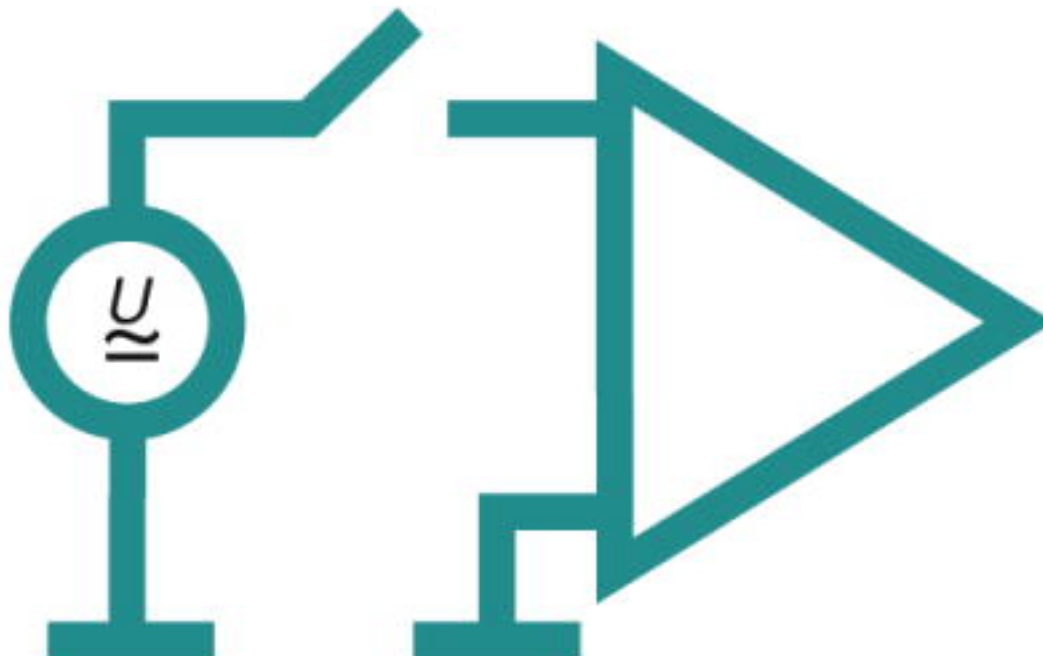
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Dimensional drawing

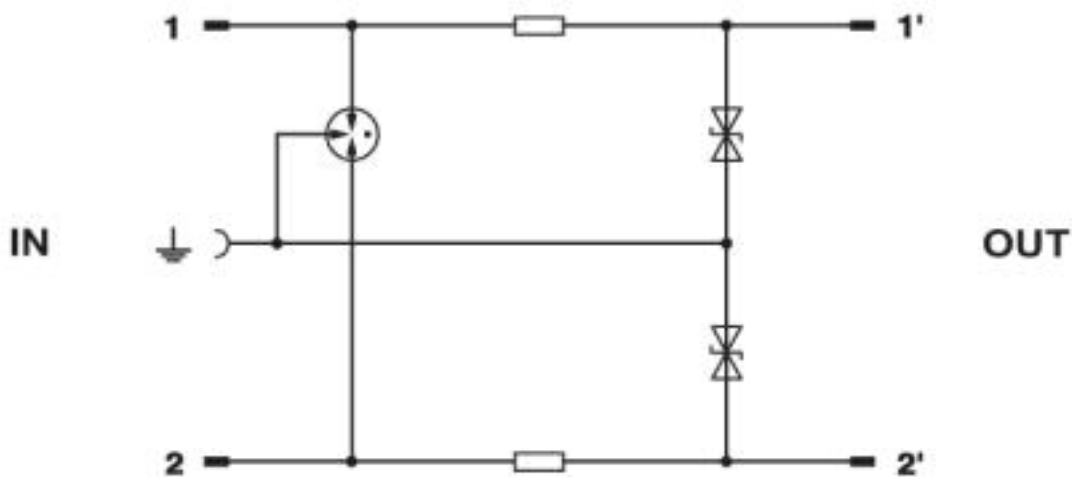


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Pictogram



Circuit diagram



Classifications

eCl@ss

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

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Classifications

eCl@ss

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

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.A*30.B01561
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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

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.

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Accessories

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

Shield connection - SSA 5-10 - 2839512



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