

CTM 1X2- 60DC - Surge protection plug

2838568

<https://www.phoenixcontact.com/us/products/2838568>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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

Your advantages

- Space-saving due to compact design
- Flexible fields of application with modular protective plug
- Can be used in LSA-PLUS disconnect and control strips or CT-TERMIBLOCK via adapted connection technology

Commercial data

Item number	2838568
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL03
Product key	CL3211
GTIN	4017918819736
Weight per piece (including packing)	8.9 g
Weight per piece (excluding packing)	10.08 g
Customs tariff number	85363010
Country of origin	DE

CTM 1X2- 60DC - Surge protection plug

2838568

<https://www.phoenixcontact.com/us/products/2838568>

Technical data

Product properties

Product type	Surge protection for MCR technology
Product family	COMTRAB
IEC test classification	B2
	C1
	C2
	C3
	D1
Type	LSA-PLUS module
Surge protection fault message	none
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10
Wire pairs per module	1

Insulation characteristics

Overvoltage category	II
Pollution degree	2

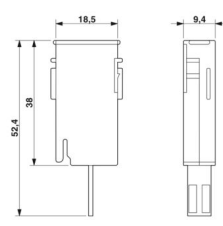
Electrical properties

Nominal voltage U_N	60 V DC
-----------------------	---------

Connection data

Connection method	can be plugged into COMTRAB-TERMIBLOCK and LSA-PLUS disconnect and switching strips
-------------------	---

Dimensions

Dimensional drawing	
Width	9.4 mm
Height	21 mm
Depth	52.4 mm

Material specifications

Color	black (RAL 9005)
	copper color
Flammability rating according to UL 94	V-0
Housing material	PA 6.6

CTM 1X2- 60DC - Surge protection plug



2838568

<https://www.phoenixcontact.com/us/products/2838568>

Mechanical properties

Mechanical data

Open side panel	No
-----------------	----

Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Nominal voltage U_N	60 V DC
Maximum continuous operating 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	$\leq 70 \mu\text{A}$
Protective conductor current I_{PE}	$\leq 2 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (line-line)	5 kA
Nominal discharge current I_n (8/20) μs (line-ground)	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	$\leq 160 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 700 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 700 \text{ V}$
Residual voltage at I_n (conductor-conductor)	$\leq 95 \text{ V}$
Residual voltage at I_n (conductor-ground)	$\leq 60 \text{ V}$
Residual voltage with I_{an} (10/1000) μs (line-line)	$\leq 35 \text{ V}$
Residual voltage with I_{an} (10/1000) μs (line-earth)	$\leq 12 \text{ V}$
Voltage protection level U_p (line-line)	$\leq 200 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 160 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p (line-earth)	$\leq 700 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 700 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p static (line-line)	$\leq 95 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 35 \text{ V}$ (C3 - 100 A)
Voltage protection level U_p static (line-earth)	$\leq 90 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 12 \text{ V}$ (C3 - 100 A)
Response time t_A (line-line)	$\leq 1 \text{ ns}$
Response time t_A (line-earth)	$\leq 100 \text{ ns}$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 500 \text{ kHz}$ / 100 Ω)
Cut-off frequency f_g (3 dB), sym. in 100 Ω system	typ. 2 MHz
Capacity (Core-Core)	typ. 1.2 nF
Resistance per path	3.3 Ω 20 %
Surge protection fault message	none
	B2 - 4 kV / 100 A

CTM 1X2- 60DC - Surge protection plug



2838568

<https://www.phoenixcontact.com/us/products/2838568>

Impulse durability (line-line)	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

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

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

Mounting

Mounting type	On CT-TERMBLOCK and LSA-PLUS disconnect strip
---------------	---

CTM 1X2- 60DC - Surge protection plug

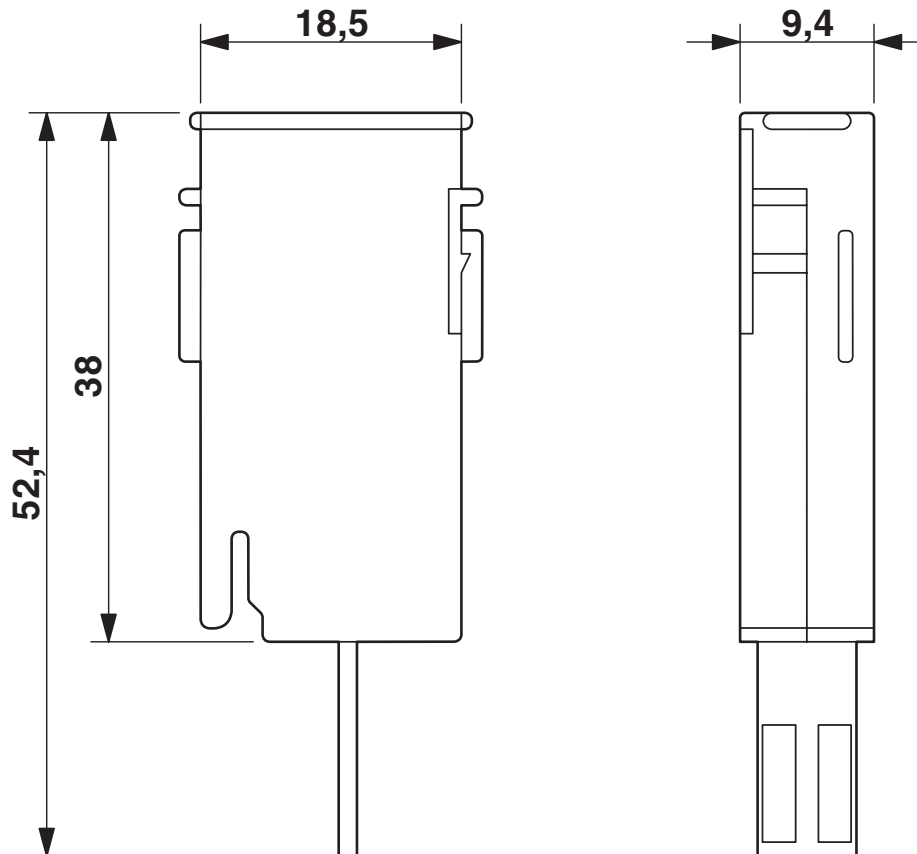
2838568

<https://www.phoenixcontact.com/us/products/2838568>

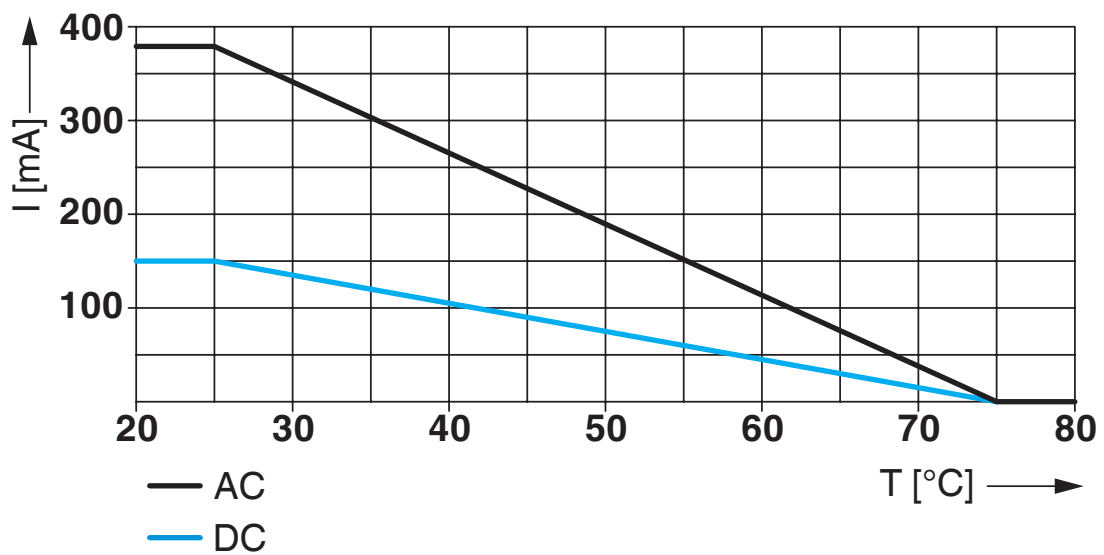


Drawings

Dimensional drawing



Diagram



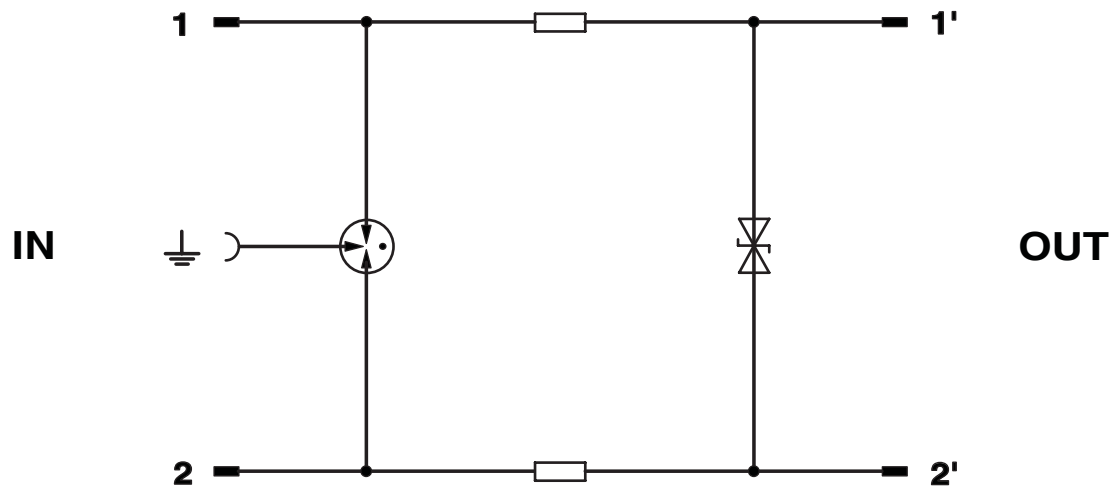
CTM 1X2- 60DC - Surge protection plug

2838568

<https://www.phoenixcontact.com/us/products/2838568>



Circuit diagram



CTM 1X2- 60DC - Surge protection plug



2838568

<https://www.phoenixcontact.com/us/products/2838568>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2838568>



UL Listed

Approval ID: FILE E 138168

CTM 1X2- 60DC - Surge protection plug



2838568

<https://www.phoenixcontact.com/us/products/2838568>

Classifications

ECLASS

ECLASS-13.0	27171501
ECLASS-15.0	27171501

ETIM

ETIM 10.0	EC001466
-----------	----------

UNSPSC

UNSPSC 21.0	39121600
-------------	----------

CTM 1X2- 60DC - Surge protection plug



2838568

<https://www.phoenixcontact.com/us/products/2838568>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

EF3.1 Climate Change

CO2e kg	1.725 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com