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PT 2X1VA-120AC-ST - Surge protection plug

2839185

https://www.phoenixcontact.com/gb/products/2839185

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Protective plug PT with protective circuit for higher signal voltages, 2-channel, visual error warning. Nominal voltage: 120 V AC

Your advantages

- Easy testing and documentation with CHECKMASTER 2 with pluggable protective modules
- Maximum ease of maintenance, thanks to the 2-piece design
- Easy selection for all possible demands in MCR applications with a complete product portfolio
- The signal is not influenced during maintenance work, thanks to the impedance-neutral insertion and removal of protective plugs

Commercial data

Item number	2839185
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL2111
Product key	CL2111
Catalog page	Page 138 (C-4-2019)
GTIN	4017918182847
Weight per piece (including packing)	27.48 g
Weight per piece (excluding packing)	23.623 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Notes

General

Note	Technical data is valid in association with the following specified base elements:
	PT -BE/ FM 2839282

Product properties

Product type	Surge protection for MCR technology
Product family	PLUGTRAB PT
IEC test classification	C1
	C2
	C3
	D1
Type	Male
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.00

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal voltage U_N	120 V AC (50/60 Hz)

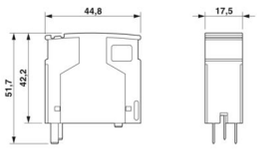
Indicator/remote signaling

Switching function	N/C contact

Connection data

Connection method	Screw connection (in connection with the base element)
Screw thread	M3
Tightening torque	0.5 Nm
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section rigid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Dimensions

Dimensional drawing	
Width	17.5 mm

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Height	44.8 mm
Depth	51.7 mm
Horizontal pitch	1 Div.
Complete module width	17.7 mm
Complete module height	90 mm
Complete module depth	65.5 mm

Material specifications

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

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	150 V DC
	150 V AC (50/60 Hz)
Rated current	26 A AC (30 °C)
	1 A DC (82 °C)
Operating effective current I_C at U_C	≤ 1.5 mA AC
	≤ 2 mA DC
Residual current I_{PE}	≤ 3 mA AC
	≤ 4 mA DC
Nominal discharge current I_n (8/20) µs (line-ground)	2.5 kA
Pulse discharge current I_{imp} (10/350) µs	500 A
Total discharge current I_{total} (8/20) µs	5 kA
Output voltage limitation at 1 kV/µs (line-earth) spike	≤ 380 V
Output voltage limitation at 1 kV/µs (line-earth) static	≤ 380 V
Voltage protection level U_p (line-earth)	≤ 450 V (C1 - 1.4 kV / 0.7 kA)
	≤ 550 V (C2 - 5 kV/2,5 kA)
	≤ 400 V (C3 - 100 A)
Response time t_A (line-earth)	≤ 25 ns
Input attenuation aE, asym.	typ. 0.3 dB (≤ 300 kHz / 150 Ω)
Cut-off frequency fg (3 dB), asym. (signal ground) in 150 Ω system	typ. 1 MHz
Capacity (Core-Earth)	typ. 2.5 nF
Surge protection fault message	optical
Max. required back-up fuse	25 A AC (gL/gG)
	1 A DC (T)
	C1 - 1,4 kV / 0,7 kA

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Impulse durability (line-earth)	C2 - 5 kV / 2.5 kA
	C3 - 100 A
	D1 - 500 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m (amsl)

Standards and regulations

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

Mounting

Mounting type	on base element

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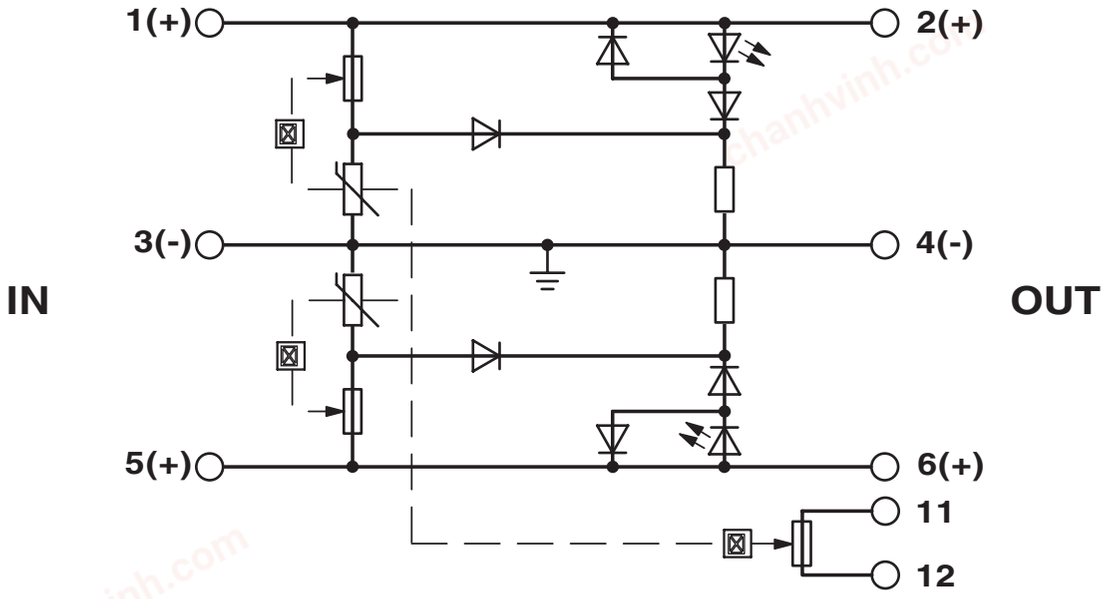
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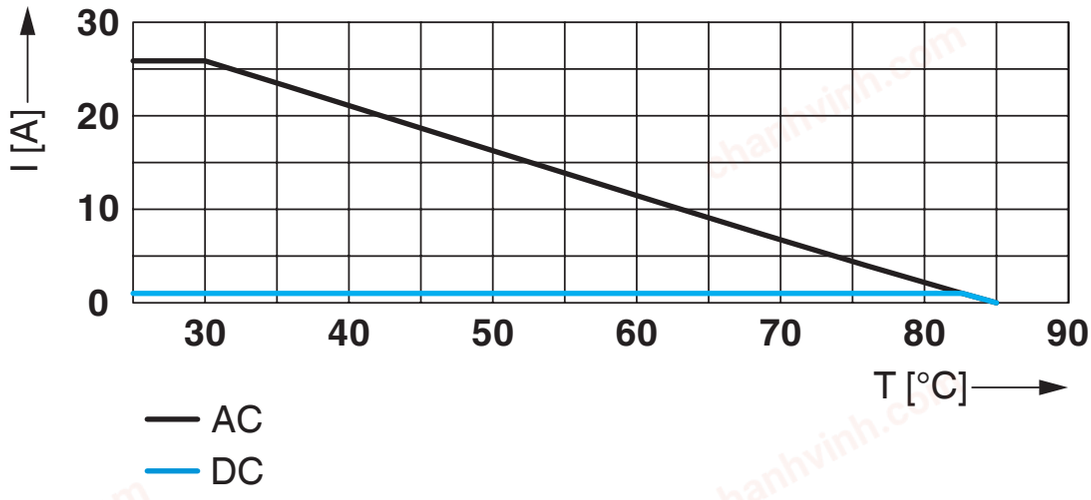
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Drawings

Circuit diagram



Diagram



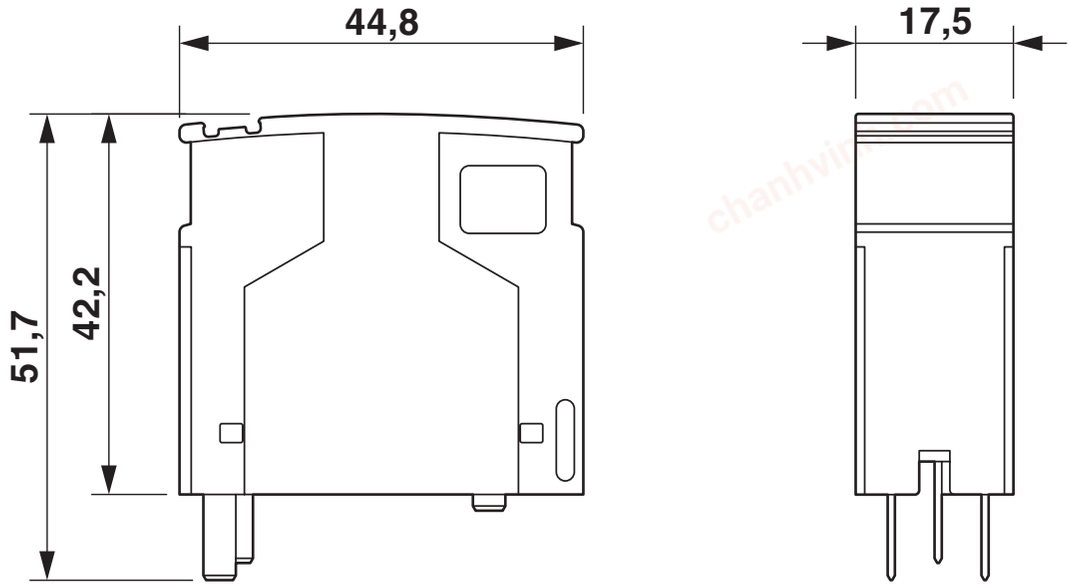
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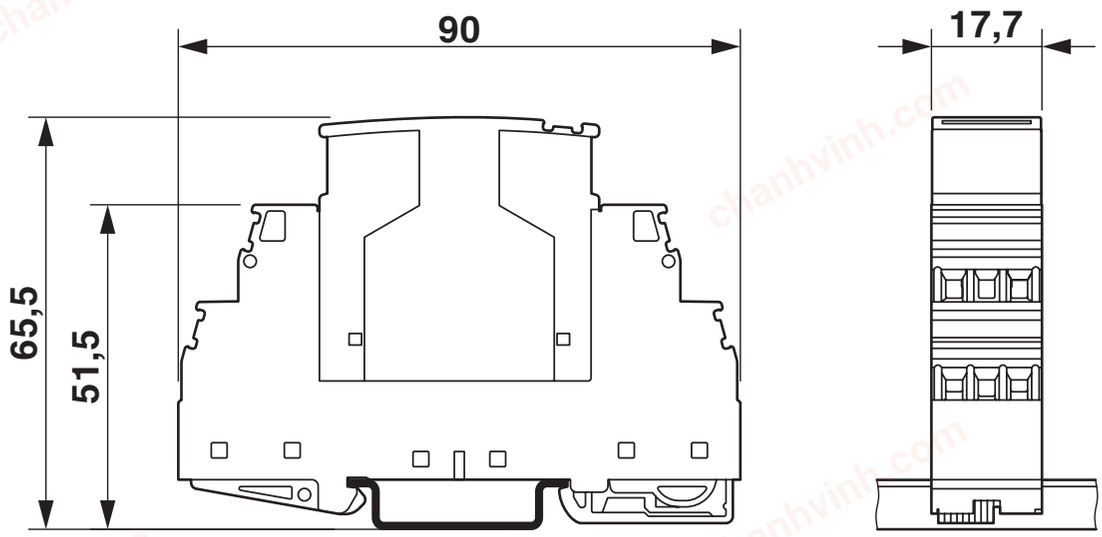
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Dimensional drawing



Dimensional drawing



The figure shows the complete module consisting of a base element and connector

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/2839185

EAC
Approval ID: EAC-Zulassung

EAC
Approval ID: RU C-DE.*09.B.00169

UL Listed
Approval ID: FILE E 138168

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Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

ETIM 9.0	EC001625

UNSPSC

UNSPSC 21.0	39121600

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a)

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.)	Lead(CAS: 7439-92-1)
SCIP	af28128e-6654-4e23-ba5e-82b364ff7405

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Mandatory accessories

PT-BE/FM - Type 3 surge protection base element

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Base element for protective plug PT, for mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

Accessories

ZBF 5:UNBEDRUCKT - Zack Marker strip, flat

0808642

https://www.phoenixcontact.com/gb/products/0808642



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm, Number of individual labels: 10

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ZBF 5/WH-100:UNBEDRUCKT - Zack Marker strip, flat

0808668

https://www.phoenixcontact.com/gb/products/0808668



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 1000

ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

https://www.phoenixcontact.com/gb/products/2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

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ZBN 18 CUS - Zack marker strip

0825059

https://www.phoenixcontact.com/gb/products/0825059



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

SSA 3-6 - Shield connection

2839295

https://www.phoenixcontact.com/gb/products/2839295



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm^2, color: black

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SSA 5-10 - Shield connection

2839512

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Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable: 200 mm, 1 mm^2, color: black

X-PEN 0,35 - Marker pen

0811228

https://www.phoenixcontact.com/gb/products/0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

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SZS 0,6X3,5 VDE - Screwdriver

1212602

https://www.phoenixcontact.com/gb/products/1212602



Screwdriver, slot-headed, VDE insulated, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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