

PT 2X1-VF-120AC-ST - Surge protection plug



2856799

<https://www.phoenixcontact.com/us/products/2856799>

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Protective connector with protective circuit free of leakage current for two floating signals. Connection in series, consisting of varistor and gas-filled surge arrester between signal wires and ground.

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	2856799
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	CL21
Product key	CL2111
Catalog page	Page 138 (C-4-2019)
GTIN	4017918974558
Weight per piece (including packing)	25.6 g
Weight per piece (excluding packing)	25.6 g
Customs tariff number	85363010
Country of origin	DE

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Technical data

Product properties

IEC test classification	C1
	C2
	C3
Type	Male
Product type	Surge protection for MCR technology
Product family	PLUGTRAB PT
Number of positions	2
Arrester can be tested with CHECKMASTER from software version:	SW Version 2.13 or later

Insulation characteristics

Overvoltage category	III
Pollution degree	2

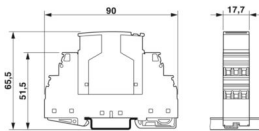
Electrical properties

Nominal voltage U_N	120 V AC
Indicator/remote signaling	
Switching function	N/C contact

Connection data

Connection method	Screw connection (in connection with the base element)
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Dimensions

Dimensional drawing	
Width	17.5 mm
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)
Flammability rating according to UL 94	V-0
Housing material	PA 6.6

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Mechanical properties

Mechanical data

Open side panel	No
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Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Maximum continuous voltage U_C	175 V AC
Rated current	6 A (with PT BE/FM)
Operating effective current I_C at U_C	$\leq 2 \mu\text{A}$
Residual current I_{PE}	$\leq 4 \mu\text{A}$
Nominal discharge current I_n (8/20) μs	3 kA
Pulse discharge current I_{imp} (10/350) μs	300 A
Total discharge current I_{total} (8/20) μs	8 kA
Max. discharge current I_{max} (8/20) μs	8 kA
Nominal pulse current I_{an} (10/1000) μs (line-earth)	40 A
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 800 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 800 \text{ V}$
Residual voltage at I_n (conductor-ground)	$\leq 600 \text{ V}$
Voltage protection level U_p	$\leq 1 \text{ kV}$ (C2 - 2 kA)
Voltage protection level U_p (line-earth)	$\leq 900 \text{ V}$ (C1 - 500 A)
	$\leq 950 \text{ V}$ (C2 - 1 kA)
	$\leq 1 \text{ kV}$ (C3 - 25 A)
	$\leq 1.1 \text{ kV}$ (I_{imp} -300 A)
Response time t_A	$\leq 100 \text{ ns}$
Capacity (Core-Earth)	typ. 3 pF
Resistance per path	0 Ω
Surge protection fault message	none
Max. required back-up fuse	6 A (gL/gG)
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 4 kV / 2 kA
	C3 - 25 A

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000 \text{ m}$ (amsl)

Standards and regulations

Air clearances and creepage distances

Standards/regulations	IEC 60664-1 / DIN VDE 0110-1
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Standards/specifications	EN 61643-21
Note	2002
Standards/specifications	IEC 61643-21
Note	2002

Mounting

Mounting type	on base element
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Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171501

ETIM

ETIM 9.0	EC001625
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

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

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