

## Surge protection device - PT 2X1-VF-120AC - 2859327

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Rail-mountable surge arrester for higher signal voltages. Protective circuit free of leakage current for two floating signals.  
Nominal voltage: 120 V AC

### Product Features

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Protective devices for use in telecommunications and signaling networks according to IEC 61643-21
- ✓ Consistent plug-in signal circuit protection
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	70.0 GRM
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

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

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### Technical data

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Degree of protection	IP20

#### General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	IEC 60664-1
	DIN VDE 0110-1
Surge voltage category	III
Pollution degree	2
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	2
Direction of action	Line-Line & Line-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	SW Version 2.13 or later

#### Protective circuit

IEC test classification	C1
	C2
	C3
Nominal voltage $U_N$	120 V AC
Maximum continuous operating voltage $U_C$	175 V AC
Nominal current $I_N$	6 A
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu A$
Residual current $I_{PE}$	$\leq 4 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$	3 kA
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)	3 kA
Total surge current (8/20) $\mu s$	8 kA
Max. discharge current $I_{max}$ (8/20) $\mu s$	8 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)	40 A
Impulse discharge current (10/350) $\mu s$ , peak value $I_{imp}$	300 A
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static	$\leq 800 V$
Residual voltage at $I_n$ , (conductor-ground)	$\leq 600 V$
Residual voltage with $I_{an}$ (10/1000) $\mu s$ (conductor-ground)	$\leq 360 V$
Energy absorption	85 J
Voltage protection level $U_p$	$\leq 1 kV$ (C2 - 2 kA)
Voltage protection level $U_p$ (Core-Earth)	$\leq 900 V$ (C1 - 500 A)

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#### Protective circuit

	≤ 950 V (C2 - 1 kA)
	≤ 1 kV (C3 - 25 A)
	≤ 1.1 kV (I <sub>imp</sub> -300 A)
Response time t <sub>A</sub>	≤ 100 ns
Capacity	typ. 3 pF
Resistance in series	0 Ω
Surge protection fault message	None
Max. required back-up fuse	6 A (e.g. D01 gL/gG)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C1 (1 kV / 500 A)
	C2 (4 kV / 2 kA)
	C3 (25 A)

#### Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M3
Tightening torque	0.8 Nm
Stripping length	8 mm
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

#### Connection, equipotential bonding

Connection method	Screw connection
Tightening torque, min	0.8 Nm

#### Standards and Regulations

Standards/regulations	EN 61643-21
	IEC 61643-21

### Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801

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## Classifications

### eCl@ss

eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

### Approvals

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Approvals

GOST

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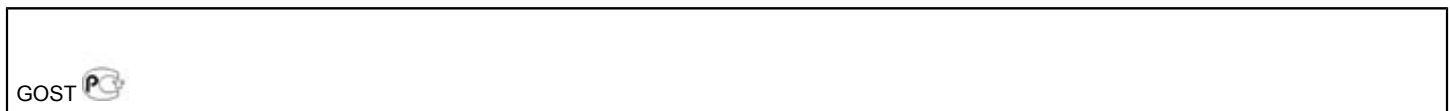
Ex Approvals

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Approvals submitted

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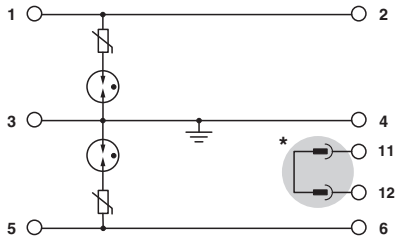
Approval details



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## Drawings

Circuit diagram



\* Circuit only closed when plug is inserted.

Dimensioned drawing

