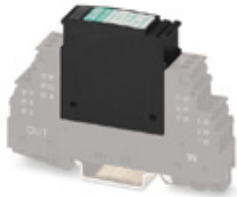


Surge protection connector - PT PE/S+1X2-24-ST - 2819008

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Protective plug PT with surge voltage equipment protection for power supply units, visual fault warning, nominal voltage: 24 V and a 2-core floating signal circuit, nominal voltage: 24 V.

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
- ✓ 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)	29.65 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm
Pitch unit	1 Div.
Height	90 mm
Width	17.7 mm
Depth	65.5 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Degree of protection	IP20

General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1
	IEC 61643-1
Total surge current (8/20) μ s	20 kA
Color	black
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Current supply arrester can be tested with CHECKMASTER starting with software version:	From SW rev. 1.00
Direction of action	L-N-PE & Signal Line-Signal Line-Earth Ground

Protective circuit, power supply

IEC test classification	III
EN type	T3
Nominal voltage U_N	24 V
Arrester rated voltage U_C (L-N)	44 V DC
	34 V DC
Arrester rated voltage U_C (L-PE)	34 V AC
	44 V DC
Nominal frequency f_N	50 Hz (60 Hz)
Nominal current I_N	6 A (30 °C)
Operating effective current I_C at U_C	≤ 1.5 mA
Residual current I_{PE}	≤ 1 μ A
Nominal discharge current I_n (8/20) μ s	700 A
Nominal discharge current I_n (8/20) μ s (L-N)	700 A
Nominal discharge current I_n (8/20) μ s (L-PE)	700 A
Max. discharge current I_{max} (8/20) μ s	2 kA
Max. discharge current I_{max} (8/20) μ s maximum (L-N)	2 kA
Max. discharge current I_{max} (8/20) μ s maximum (L-PE)	2 kA
100% lightning impulse sparkover voltage (1.2/50) μ s (L-PE)	230 V
100% lightning impulse sparkover voltage (1.2/50) μ s (L-PEN)	230 V
Combined surge U_{OC}	2 kV

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Technical data

Protective circuit, power supply

Energy absorption symmetrical	28 J
Energy absorption, asymmetrical	14 J
Voltage protection level U_P (L-N)	≤ 180 V
Voltage protection level U_P (L-PE)	≤ 550 V
Total surge current (8/20) μ s	20 kA
Response time (L-N)	≤ 25 ns
Response time (L-PE)	≤ 100 ns
Surge protection fault message	Optical
Max. required back-up fuse	6 A (gL/gG)
Residual voltage at I_n , (L-N)	≤ 170 V
Residual voltage at I_n , (L-PE)	≤ 100 V

Connection (protective circuit, power supply)

Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system

Standards (protective circuit, power supply)

Standards/regulations	IEC 61643-1
	EN 61643-11

Protective circuit, information technology

Nominal voltage U_N	24 V AC
Max. operating voltage U_{max}	28 V AC
	40 V DC
Arrester rated voltage U_C	40 V DC
	28 V AC
Arrester rated voltage U_C (Core-Earth)	40 V DC
	28 V AC
Nominal current I_N	450 mA (45°C)
Operating effective current I_C at U_C	≤ 5 μ A
Residual current I_{PE}	≤ 2 μ A
Nominal discharge current I_n (8/20) μ s (Core-Core)	10 kA
Nominal discharge current I_n (8/20) μ s (Core-Earth)	10 kA
Max. discharge current I_{max} (8/20) μ s maximum (Core-Core)	10 kA
Max. discharge current I_{max} (8/20) μ s maximum (Core-Earth)	10 kA
Voltage protection level U_P (Core-Core)	≤ 80 V (C2 (10 kV/5 kA))
Voltage protection level U_P (Core-Earth)	≤ 450 V (C2 (10 kV/5 kA))
Response time t_A (Core-Core)	≤ 1 ns

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Technical data

Protective circuit, information technology

Response time t_A (Core-Earth)	$\leq 100 \text{ ns}$
Input attenuation a_E , sym.	0.5 dB ($\leq 1.5 \text{ MHz}$)
	0.2 dB ($\leq 500 \text{ kHz} / 150 \Omega$)
	0.1 dB ($\leq 100 \text{ kHz} / 600 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	typ. 8 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 3 MHz
Cut-off frequency f_g (3 dB), sym. in 600 Ohm system	typ. 800 kHz
Capacity (Core-Core)	1.1 nF
Resistance in series	2.2 Ω
Impulse discharge current (10/350) μs , peak value I_{imp}	2.5 kA
Surge protection fault message	Optical, remote indicator contact
Output voltage limitation at 1 kV/ μs (wire-wire)	$\leq 55 \text{ V}$
Output voltage limitation at 1 kV/ μs (wire-earth)	$\leq 25 \text{ V}$
Residual voltage at I_n , (conductor-conductor)	$\leq 55 \text{ V}$
Residual voltage with I_{an} (10/1000) μs (conductor-conductor)	$\leq 65 \text{ V}$
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (2.5 kA)

Power supply, general

Connection method	Screw connection (in connection with the base element)
Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	8 mm
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

Standards (protective circuit, information technology)

VDE requirement class	C1
	C2
	C3
	D1

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Technical data

Standards (protective circuit, information technology)

IEC test classification	C1
	C2
	C3
	D1
Standards/regulations	IEC 61643-21

Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
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	EC000899
ETIM 5.0	EC000899

UNSPSC

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

Approvals

Approvals

Approvals

GOST

Surge protection connector - PT PE/S+1X2-24-ST - 2819008

Approvals

Ex Approvals

Approvals submitted

Approval details



Accessories

Accessories

Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 18 mm, Lettering field: 18 x 5 mm

Labeled terminal marker

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

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Accessories

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Marker pen

Marker pen - X-PEN 0,35 - 0811228



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

Terminal marking

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.1 x 5.2 mm

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

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Accessories

Required add-on products

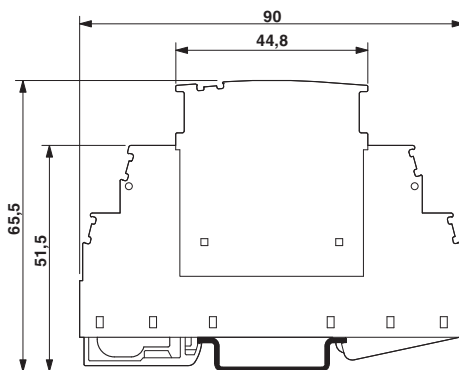
Surge protection base element - PT PE/S+1X2-BE - 2856265



Base element for protective plug PT with surge voltage device protection for the power supply unit and one 2-wire floating signal circuit, mounting on NS 35/7.5 and NS 35/15, housing width: 17.5 mm

Drawings

Dimensioned drawing



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

Circuit diagram

