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

2819008

https://www.phoenixcontact.com/us/products/2819008

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.



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

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	2819008
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL21
Product key	CL2111
GTIN	4017918819323
Weight per piece (including packing)	31.43 g
Weight per piece (excluding packing)	25.833 g
Customs tariff number	85363010
Country of origin	DE

Technical data

Product properties

Product type	Surge protection for MCR technology
Product family	PLUGTRAB PT
IEC test classification	C1
	C2
	C3
	D1
Type	Male
Surge protection fault message	optical
Wire pairs per module	1

Insulation characteristics

Overvoltage category	III
Pollution degree	2
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.00
EN type	T3
Number of ports	One

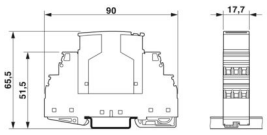
Electrical properties

Nominal voltage U_N	24 V AC

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

Material specifications

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

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Power supplies

Direction of action	L-N-PE & Signal Line-Signal Line-Earth Ground
Nominal voltage U_N	24 V AC
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C	34 V AC
	44 V DC
Rated load current I_L	6 A (30 °C)
Protective conductor current I_{PE}	≤ 5 µA
Operating effective current I_C at U_C	≤ 1.5 mA
Nominal discharge current I_n (8/20) µs	700 A
Maximum discharge current I_{max} (8/20) µs	2 kA
Combination wave U_{OC}	2 kV
Voltage protection level U_p (L-N)	≤ 0.18 kV
Voltage protection level U_p (L-PE)	≤ 0.55 kV
Residual voltage at Iamax, (L-N)	≤ 0.17 kV (at I_n)
Residual voltage at Iamax, (L-PE)	≤ 0.1 kV (at I_n)
Response time t_A (L-N)	≤ 25 ns
Response time t_A (L-PE)	≤ 100 ns
Short-circuit current rating I_{SCCR}	1.5 kA
	1 kA
Max. backup fuse with branch wiring	6 A (gG)

Information technology

Nominal voltage U_N	24 V AC

Maximum continuous operating voltage U_C	40 V DC
	28 V AC
Rated current	450 mA (45 °C)
Operating effective current I_C at U_C	≤ 5 µA
Protective conductor current I_{PE}	≤ 2 µA
Nominal discharge current I_n (8/20) µs (line-line)	10 kA
Nominal discharge current I_n (8/20) µs (line-ground)	10 kA
Pulse discharge current I_{imp} (10/350) µs (line-earth)	2.5 kA
Total discharge current I_{Total} (8/20) µs	20 kA
Max. discharge current I_{max} (8/20) µs maximum (line-line)	10 kA
Max. discharge current I_{max} (8/20) µs maximum (line-earth)	20 kA (in total)
Nominal pulse current Ian (10/1000) µs (line-line)	23 A
Output voltage limitation at 1 kV/µs (line-line) spike	≤ 55 V
Output voltage limitation at 1 kV/µs (line-earth) spike	450 V
Output voltage limitation at 1 kV/µs (line-line) static	≤ 55 V
Output voltage limitation at 1 kV/µs (line-earth) static	≤ 25 V
Residual voltage at I_n (conductor-conductor)	≤ 55 V
Residual voltage with Ian (10/1000) µs (line-line)	≤ 65 V
Voltage protection level U_p (line-line)	≤ 80 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p (line-earth)	≤ 450 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p static (line-line)	≤ 50 V (C2 - 10 kV / 5 kA)
Voltage protection level U_p static (line-earth)	≤ 50 V (C2 - 10 kV / 5 kA)
Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.5 dB (≤ 1.5 MHz / 50 Ω)
	typ. 0.2 dB (≤ 500 kHz / 150 Ω)
	typ. 0.1 dB (≤ 100 kHz / 600 Ω)
Cut-off frequency fg (3 dB), sym. in 50 Ω system	typ. 8 MHz
Cut-off frequency fg (3 dB), sym. in 150 Ω system	typ. 3 MHz
Cut-off frequency fg (3 dB), sym. in 600 Ω system	typ. 800 kHz
Capacity (Core-Core)	typ. 1.1 nF
Capacity (Core-Earth)	typ. 4 pF
Resistance per path	2.2 Ω ±10 %
Surge protection fault message	Optical, remote indicator contact
Max. required back-up fuse	500 mA (T)

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)
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

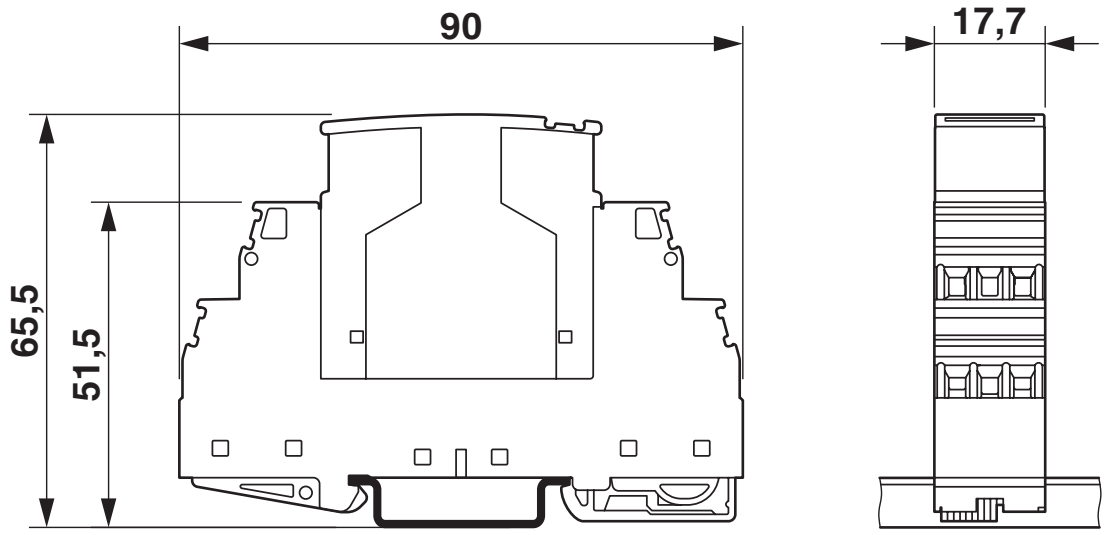
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012
Standards/specifications	EN 61643-21
Note	A2:2013

Mounting

Mounting type	on base element

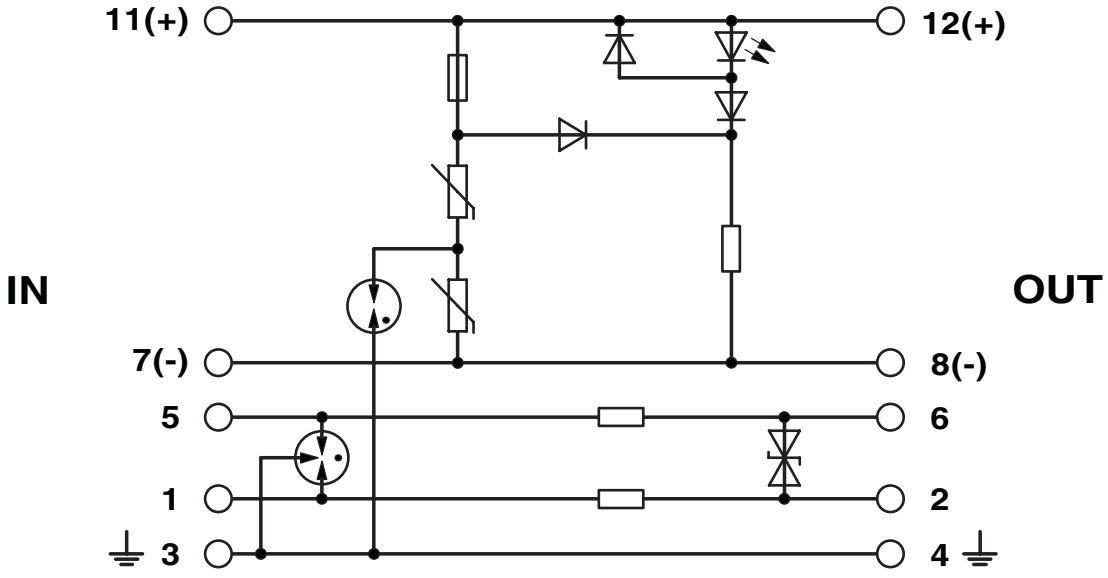
Drawings

Dimensional drawing



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

Circuit diagram



Classifications

ECLASS

ECLASS-13.0	27171602
ECLASS-15.0	27171602

ETIM

ETIM 10.0	EC001625

UNSPSC

UNSPSC 21.0	39121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 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.)	Lead(CAS: 7439-92-1)
SCIP	9119892a-b46b-4fe9-9d5b-2bda7424128c

EF3.1 Climate Change

CO2e kg	1.063 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