

BT-1S-230AC/A - Type 3 surge protection device



2803409

<https://www.phoenixcontact.com/us/products/2803409>

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.



Type 3 arrester for universal mounting in installation boxes, sill-type trunking, underfloor installations or directly in the termination device. Circuit with thermal monitoring, acoustic fault warning. Installation in branch or through wiring. Design: 230 V AC

Your advantages

- Optimal additional protection of the building installation for longer service life and increased availability of the end devices
- Can be used universally, thanks to its compact design
- Concealed surge protection, thanks to installation in the device socket
- Excellent level of information provided, thanks to visual or audible fault indication

Commercial data

Item number	2803409
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	CL01
Product key	CL1441
GTIN	4046356350976
Weight per piece (including packing)	27.35 g
Weight per piece (excluding packing)	27.35 g
Customs tariff number	85363010
Country of origin	DE

BT-1S-230AC/A - Type 3 surge protection device



2803409

<https://www.phoenixcontact.com/us/products/2803409>

Technical data

Product properties

Product type	Device protection
Product family	BLOCKTRAB
IEC power supply system	TN-S
	TT
	IT with N conductor
Type	Installation module
Distance between live and grounded parts	3 mm
Number of positions	2
Surge protection fault message	Acoustic

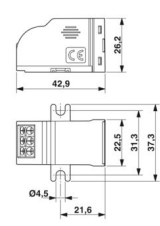
Insulation characteristics

Overvoltage category	III
Pollution degree	2
IEC test classification	III
	T3
EN type	T3
Number of ports	One
Distance between live and grounded parts	3 mm

Connection data

Connection method	Spring-cage connection
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 14

Dimensions

Dimensional drawing	
Width	22.5 mm
Height	43 mm
Depth	26.2 mm

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V-0
CTI value of material	600

BT-1S-230AC/A - Type 3 surge protection device



2803409

<https://www.phoenixcontact.com/us/products/2803409>

Insulating material	PA 6.6
Housing material	PA 6.6

Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Direction of action	L(N)-PE
Nominal voltage U_N	230/400 V AC (TN-S)
	230/400 V AC (TT - only in use with RCD)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C (L-N)	275 V AC
Maximum continuous operating voltage U_C (L-PE)	440 V AC
Maximum continuous operating voltage U_C (N-PE)	440 V AC
Rated load current I_L	16 A (30 °C)
Protective conductor current I_{PE}	$\leq 3 \mu\text{A}$
Standby power consumption P_C	$\leq 400 \text{ mVA}$
Reference test voltage U_{REF}	255 V AC
Nominal discharge current I_n (8/20) μs	3 kA
Maximum discharge current I_{max} (8/20) μs	8 kA
Combination wave U_{OC}	6 kV
Voltage protection level U_p (L-N)	$\leq 1.3 \text{ kV}$
Voltage protection level U_p (L-PE)	$\leq 1.5 \text{ kV}$
Voltage protection level U_p (N-PE)	$\leq 1.5 \text{ kV}$
Residual voltage at I_{max} , (L-N)	$\leq 1.3 \text{ kV}$ (at U_{OC})
Residual voltage at I_{max} , (L-PE)	$\leq 1.5 \text{ kV}$ (at U_{OC})
Residual voltage at I_{max} , (PE)	$\leq 1.5 \text{ kV}$ (at U_{OC})
TOV behavior at U_T (L-N)	335 V AC (5 s / withstand mode)
	440 V AC (120 min / safe failure mode)
TOV behavior at U_T (L-PE)	440 V AC (5 s / withstand mode)
	440 V AC (120 min / withstand mode)
	1455 V AC (200 ms / safe failure mode)
TOV behavior at U_T (N-PE)	1200 V AC (200 ms / safe failure mode)
Response time t_A (L-N)	$\leq 25 \text{ ns}$
Response time t_A (L-PE)	$\leq 100 \text{ ns}$
Short-circuit current rating I_{SCCR}	1 kA AC
Maximum backup fuse for through wiring	16 A (MCB B)
Max. backup fuse with branch wiring	16 A (MCB B)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-30 °C ... 75 °C
Ambient temperature (storage/transport)	-30 °C ... 75 °C

BT-1S-230AC/A - Type 3 surge protection device



2803409

<https://www.phoenixcontact.com/us/products/2803409>

Altitude	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

Air clearances and creepage distances

Standards/regulations	EN 60664-1 / IEC 60664-1 / IEC 61643-1 / EN 61643-11
Standards/specifications	IEC 61643-11
Note	2011
Standards/specifications	EN 61643-11
Note	2012

Mounting

Mounting type	Screw mounting
---------------	----------------

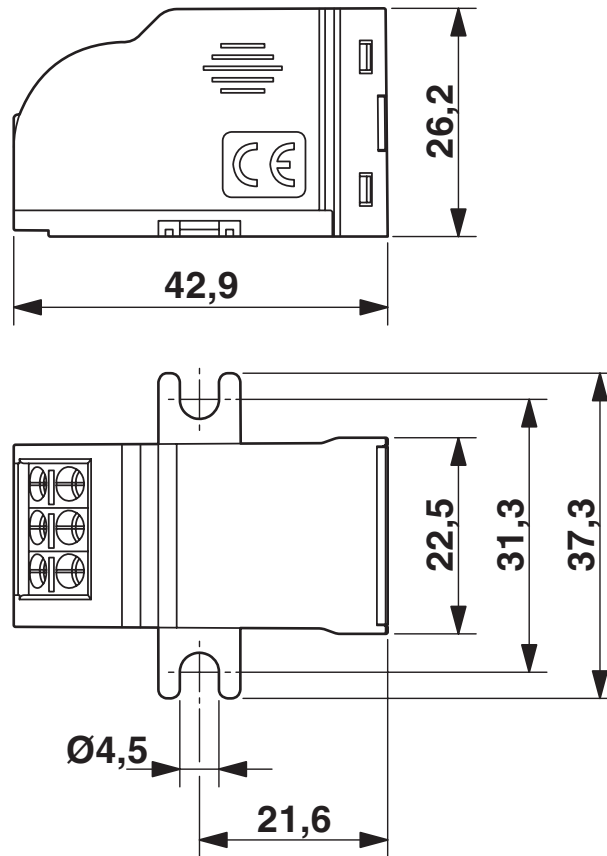
BT-1S-230AC/A - Type 3 surge protection device

2803409

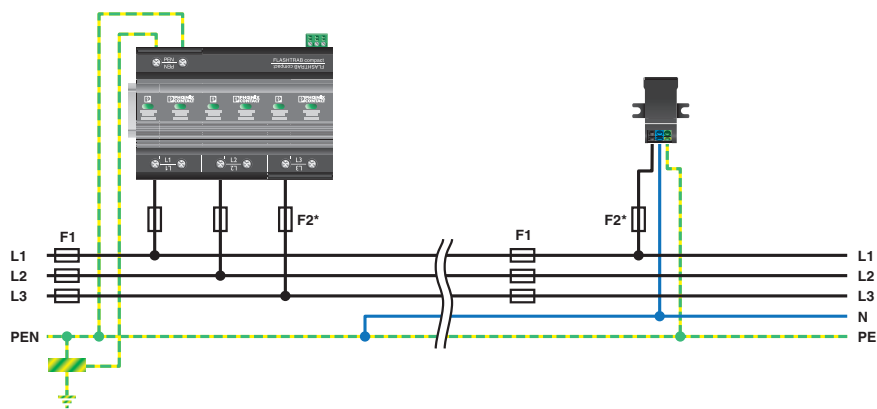
<https://www.phoenixcontact.com/us/products/2803409>

Drawings

Dimensional drawing



Application drawing

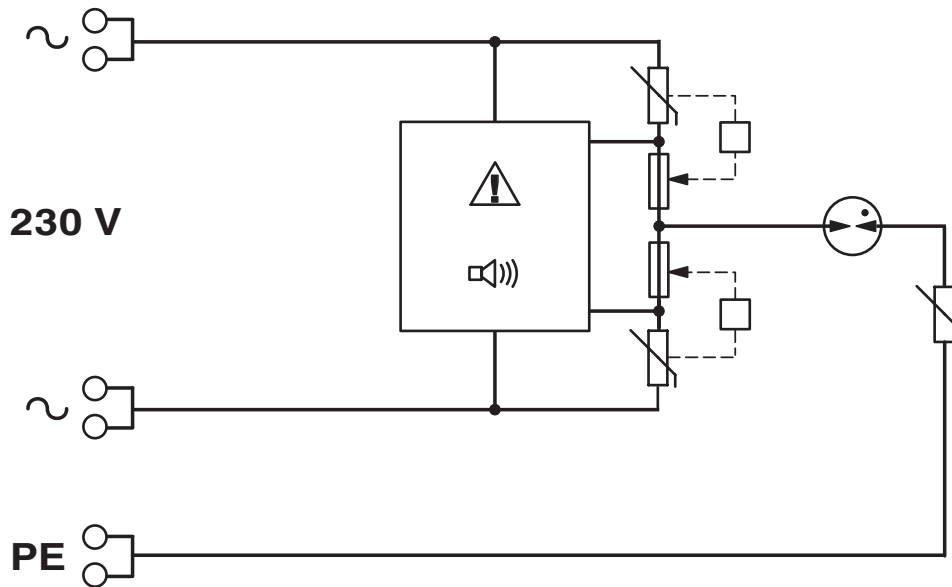


BT-1S-230AC/A - Type 3 surge protection device

2803409

<https://www.phoenixcontact.com/us/products/2803409>

Circuit diagram



BT-1S-230AC/A - Type 3 surge protection device



2803409

<https://www.phoenixcontact.com/us/products/2803409>

Classifications

ECLASS

ECLASS-13.0	27171203
ECLASS-15.0	27171203

ETIM

ETIM 10.0	EC000942
-----------	----------

UNSPSC

UNSPSC 21.0	39121600
-------------	----------

BT-1S-230AC/A - Type 3 surge protection device



2803409

<https://www.phoenixcontact.com/us/products/2803409>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

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