

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



2803409

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

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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

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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

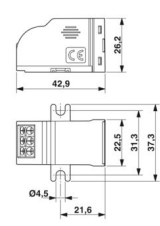
Insulation characteristics

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

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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}	$\leq 3 \mu A$
Standby power consumption P_C	≤ 400 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)	≤ 1.3 kV
Voltage protection level U_p (L-PE)	≤ 1.5 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Residual voltage at I_{max} , (L-N)	≤ 1.3 kV (at U_{OC})
Residual voltage at I_{max} , (L-PE)	≤ 1.5 kV (at U_{OC})
Residual voltage at I_{max} , (PE)	≤ 1.5 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)	≤ 25 ns
Response time t_A (L-PE)	≤ 100 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

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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
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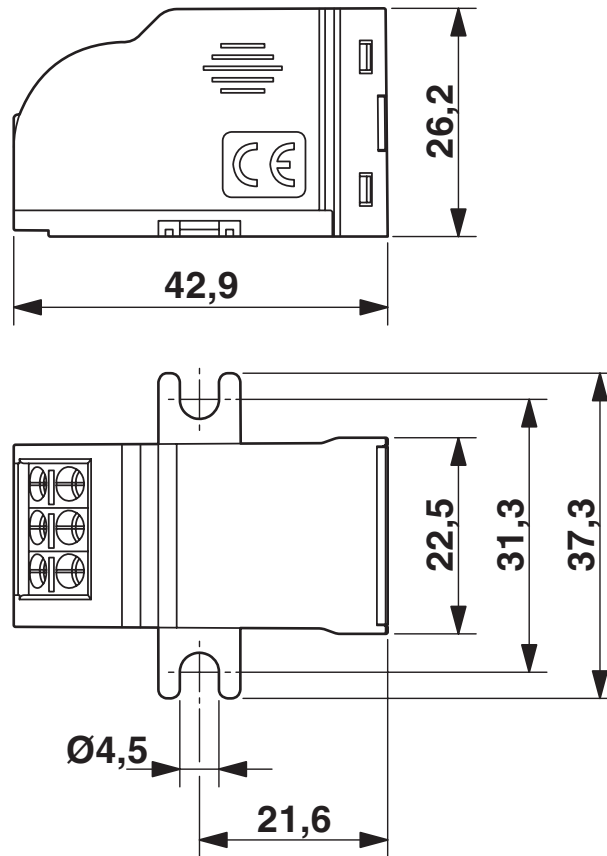
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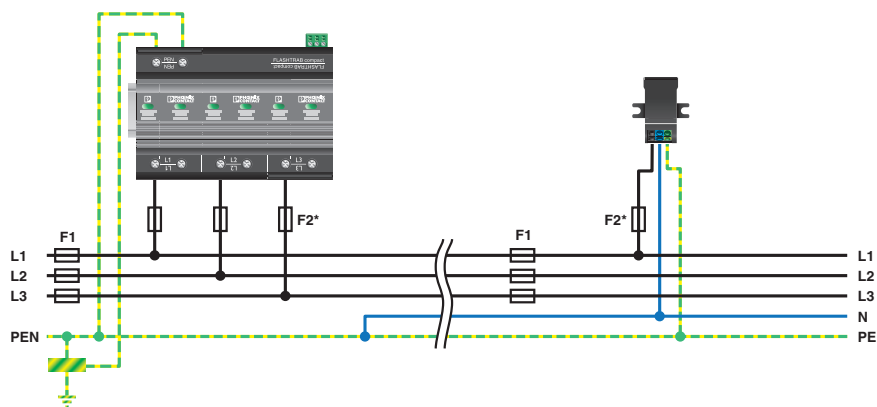
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Drawings

Dimensional drawing



Application drawing

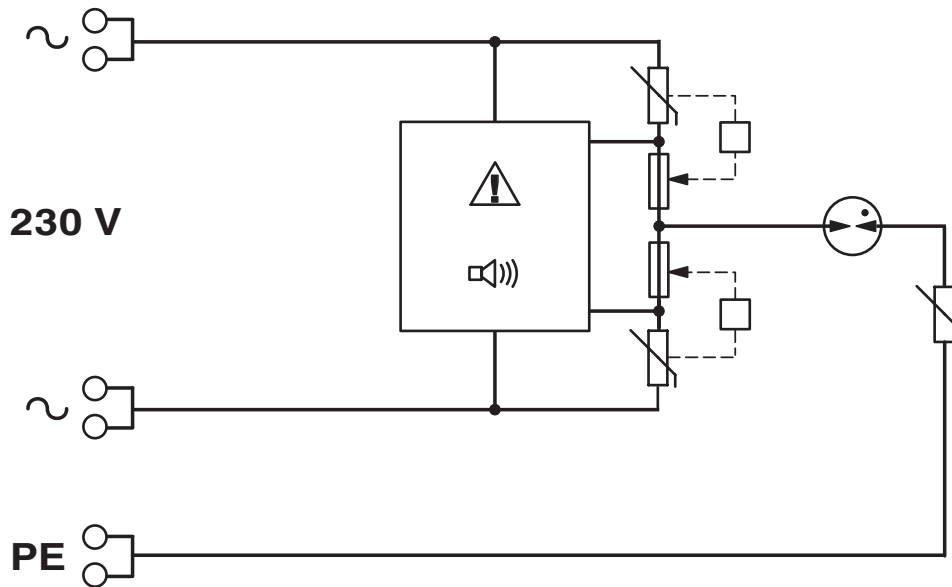


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Circuit diagram



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Classifications

ECLASS

ECLASS-13.0	27171203
ECLASS-15.0	27171203

ETIM

ETIM 10.0	EC000942
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UNSPSC

UNSPSC 21.0	39121600
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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%
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