

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



## Key Commercial Data

Packing unit	10 pc
GTIN	
GTIN	4046356350976

## Technical data

### Dimensions

Height	43 mm
Width	22.5 mm
Depth	26.2 mm

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-30 °C ... 75 °C
Ambient temperature (storage/transport)	-30 °C ... 75 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %

### General

EN type	T3
IEC power supply system	TN-S
	TT
	IT with N conductor
Number of ports	One
Mode of protection	L-N
	L-PE

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## Technical data

### General

	N-PE
Mounting type	Screw mounting
Color	jet black RAL 9005
Housing material	PA 6.6
Degree of pollution	2
Distance between live and grounded parts	3 mm
Flammability rating according to UL 94	V-0
Type	Installation module
Number of positions	2
Surge protection fault message	Acoustic

### Protective circuit

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)
Residual current $I_{PE}$	$\leq 3 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$	3 kA
Standby power consumption $P_C$	$\leq 400$ mVA
Reference test voltage $U_{REF}$	255 V AC
Max. discharge current $I_{max}$ (8/20) $\mu s$	8 kA
Combination wave $U_{OC}$	6 kV
Voltage protection level $U_p$ (L-N)	$\leq 1.3$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 1.5$ kV
Voltage protection level $U_p$ (N-PE)	$\leq 1.5$ kV
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)	$\leq 25$ ns
Response time $t_A$ (L-PE)	$\leq 100$ ns
Max. required back-up fuse	16 A (MCB B)
Short-circuit current rating $I_{SCCR}$	1 kA AC
Max. backup fuse with branch wiring	16 A (MCB B)
Maximum backup fuse for through wiring	16 A (MCB B)

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### Technical data

#### Connection data

Connection method	Spring-cage connection
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14
Stripping length	10 mm

#### Standards and Regulations

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012

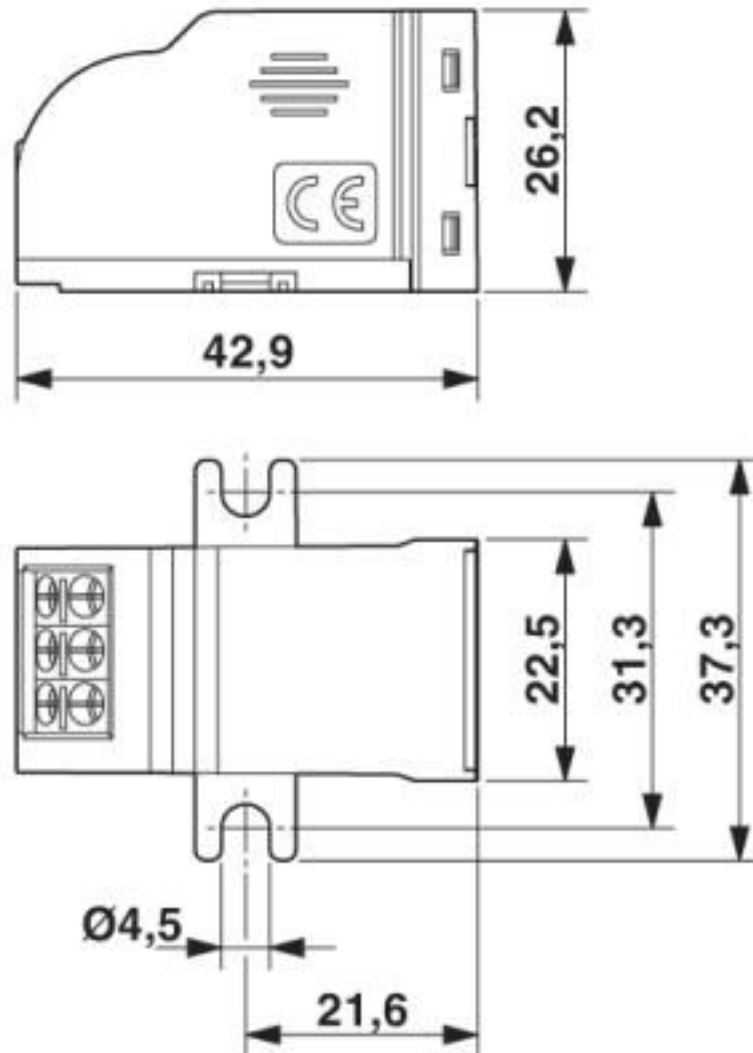
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

### Drawings

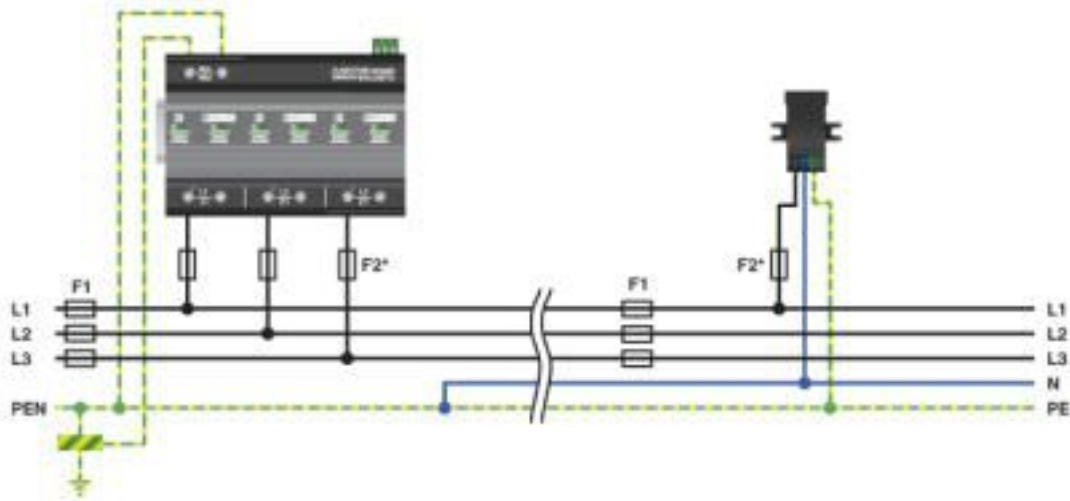
## Type 3 surge protection device - BT-1S-230AC/A - 2803409

Dimensional drawing

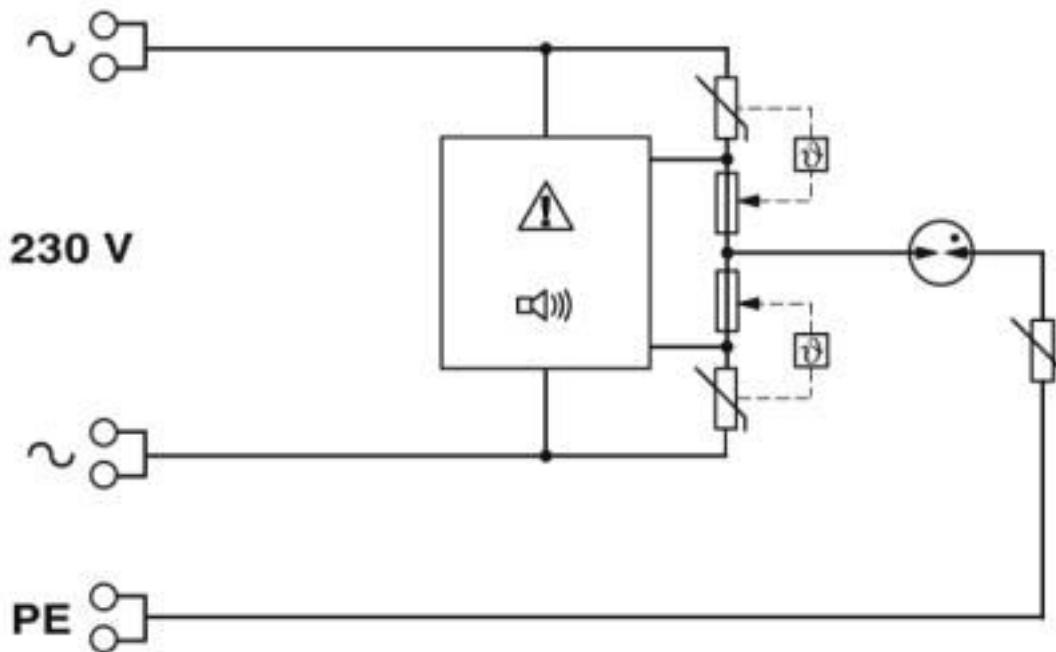


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Application drawing



Circuit diagram



## Classifications

eCl@ss

eCl@ss 10.0.1	27130806
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800

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## Classifications

### eCl@ss

eCl@ss 6.0	27130800
eCl@ss 7.0	27130806
eCl@ss 8.0	27130806
eCl@ss 9.0	27130806

### ETIM

ETIM 2.0	EC000942
ETIM 3.0	EC000942
ETIM 4.0	EC000942
ETIM 5.0	EC000942
ETIM 6.0	EC000942
ETIM 7.0	EC000942

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

## Approvals

### Approvals

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Approvals

EAC

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Ex Approvals

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### Approval details

EAC		RU C- DE.*09.B.00169
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