

Type 3 surge protection device - BT-1S-230AC/O - 2800625

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Type 3 arresters for universal installation in installation boxes, sill-type trunking, underfloor installations or direct installation in the termination device. Circuit with thermal monitoring and visual fault warning. Installation in branch or through wiring. Version: 230 V AC

Your advantages

- ✔ With double spring-cage terminal blocks for tool-free conductor connection
- ✔ Optical/audible signaling of disconnection
- ✔ Side latches for easy fixing

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 620437
GTIN	4046356620437
Weight per Piece (excluding packing)	42.400 g
Custom tariff number	85363030
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Dimensions

Height	43 mm
Width	22.5 mm
Depth	27.4 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 %

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Technical data

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
	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	optical

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) μs	3 kA
Standby power consumption P_C	≤ 400 mVA
Reference test voltage U_{REF}	255 V AC
Max. discharge current I_{max} (8/20) μs	8 kA
Combination wave U_{OC}	6 kV
Energy absorption symmetrical	200 J (L-N (L))
Energy absorption, asymmetrical	230 J (L(N)-PE)
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
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)

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Protective circuit

	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
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)

Connection data

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

Standards and Regulations

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

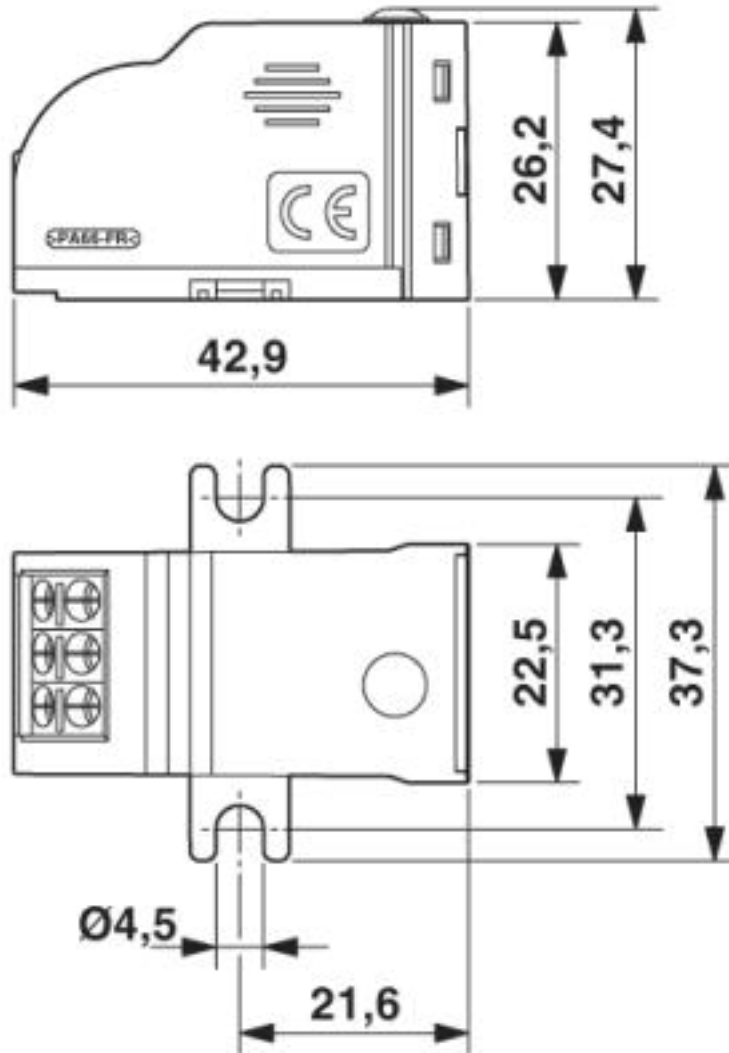
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

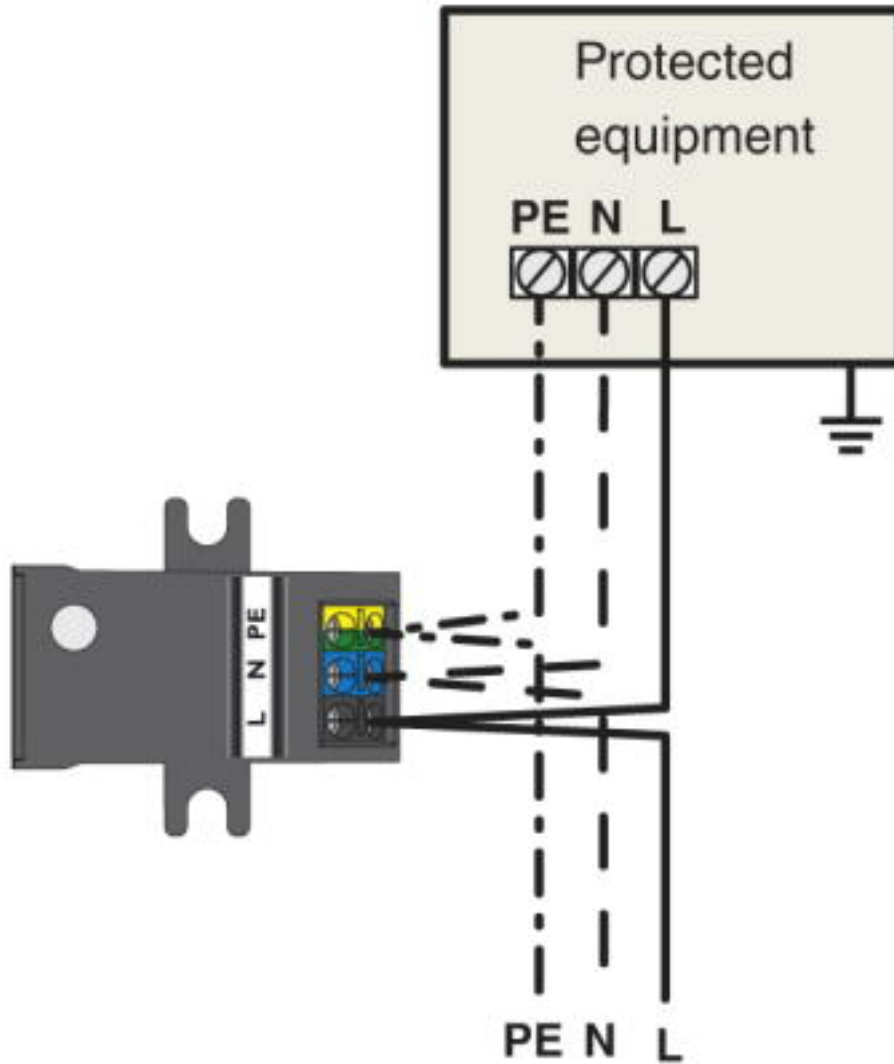
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Dimensional drawing



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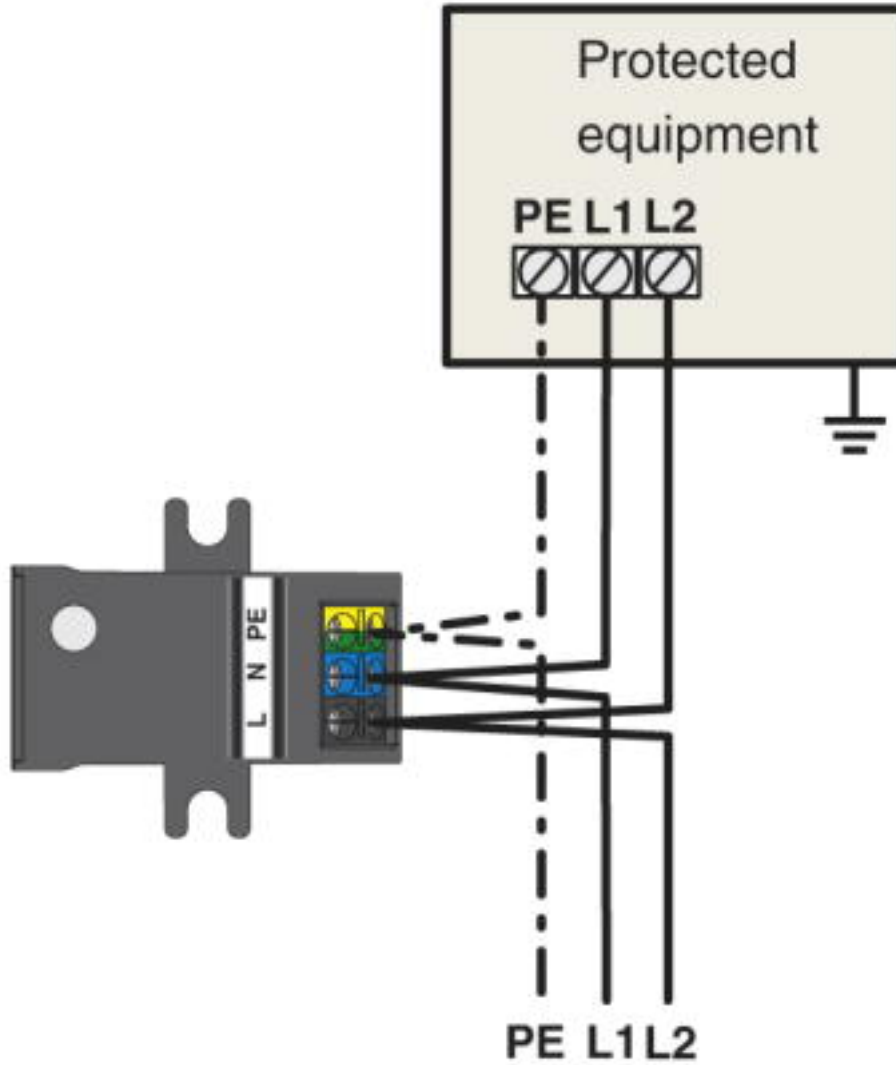
Application drawing



Installation directly in the device to be protected, 230 V TN-S/TT system - through wiring

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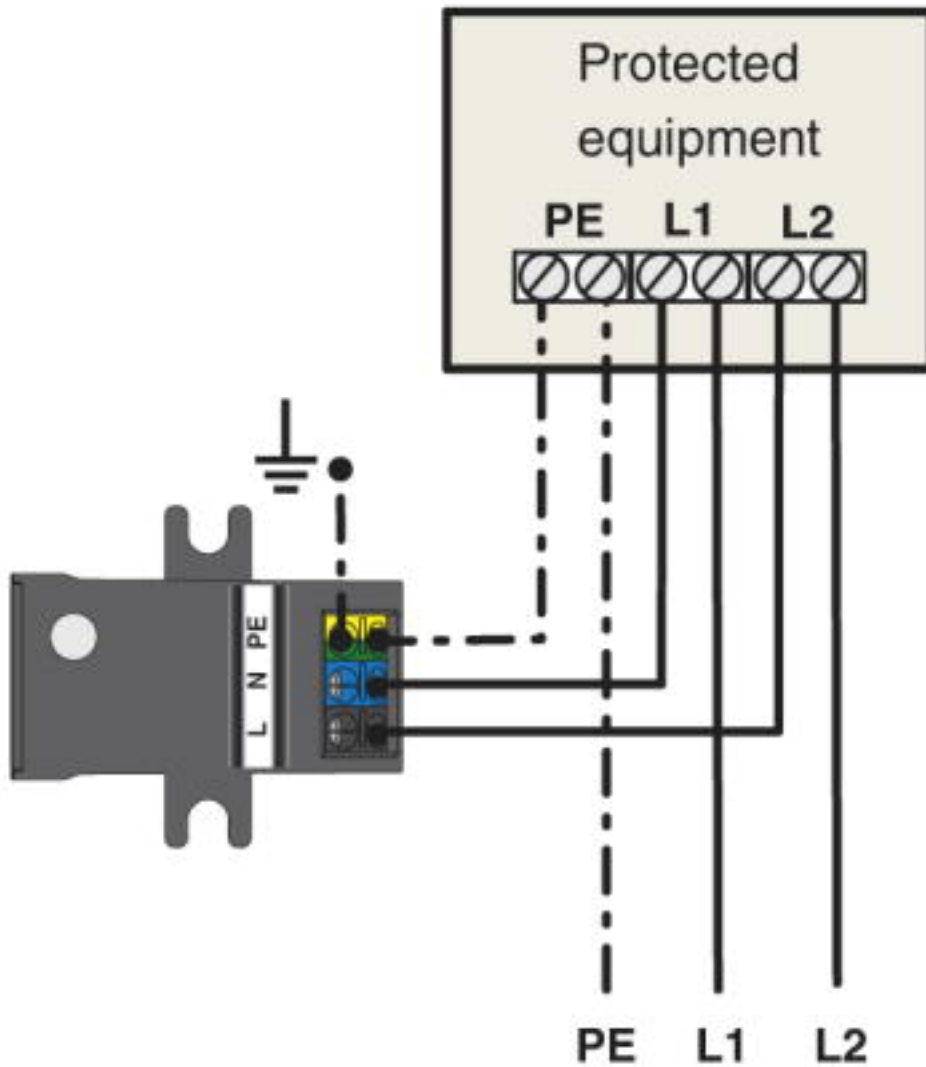
Application drawing



Installation directly in the device to be protected, 230 V IT system - through wiring

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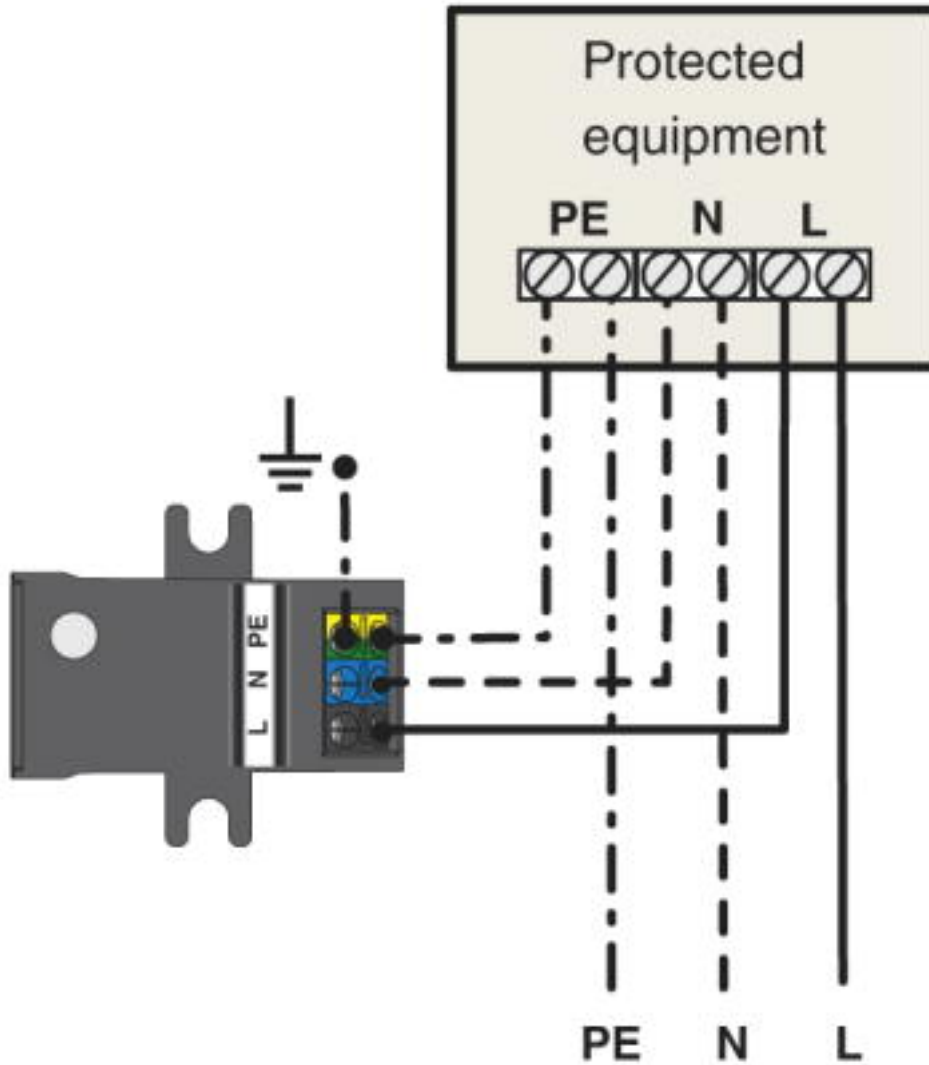
Application drawing



Installation directly in the device to be protected, 230 V IT system - branch wiring

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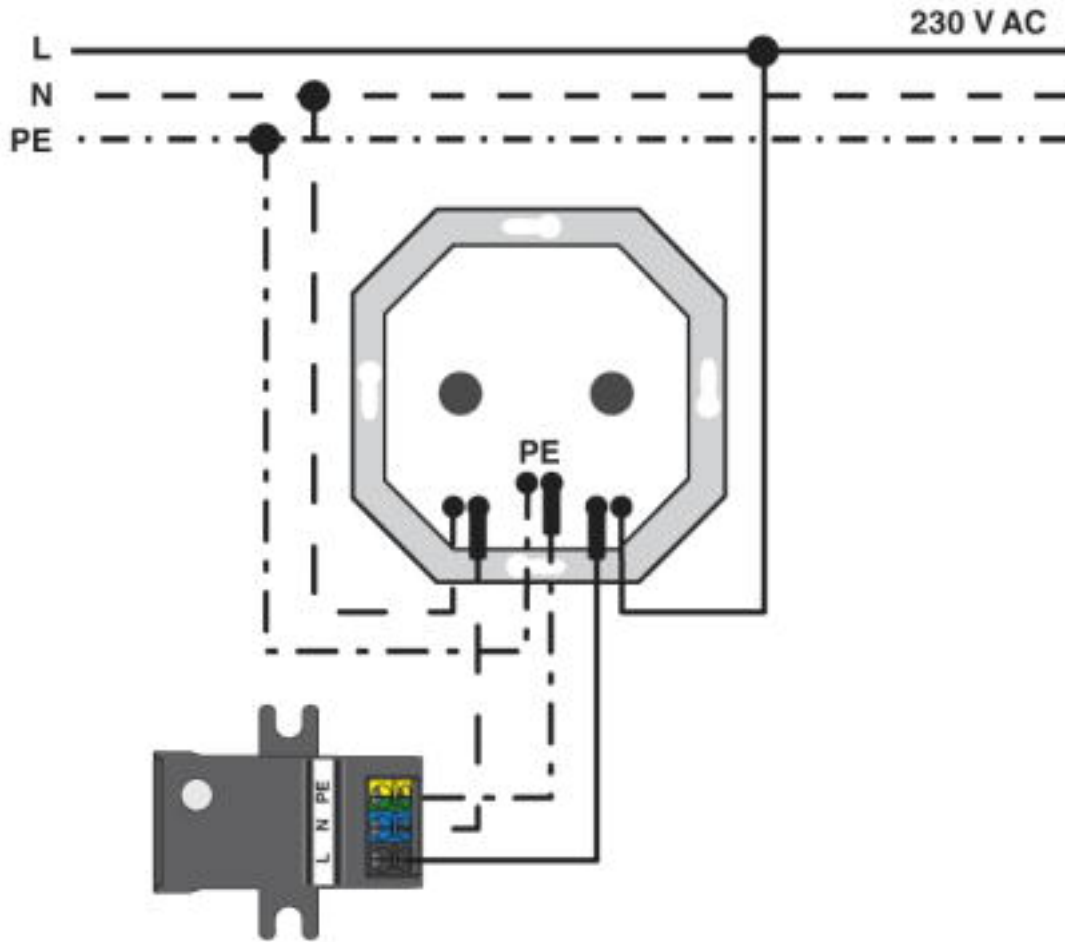
Application drawing



Installation directly in the device to be protected, 230 V TN-S/TT system - branch wiring

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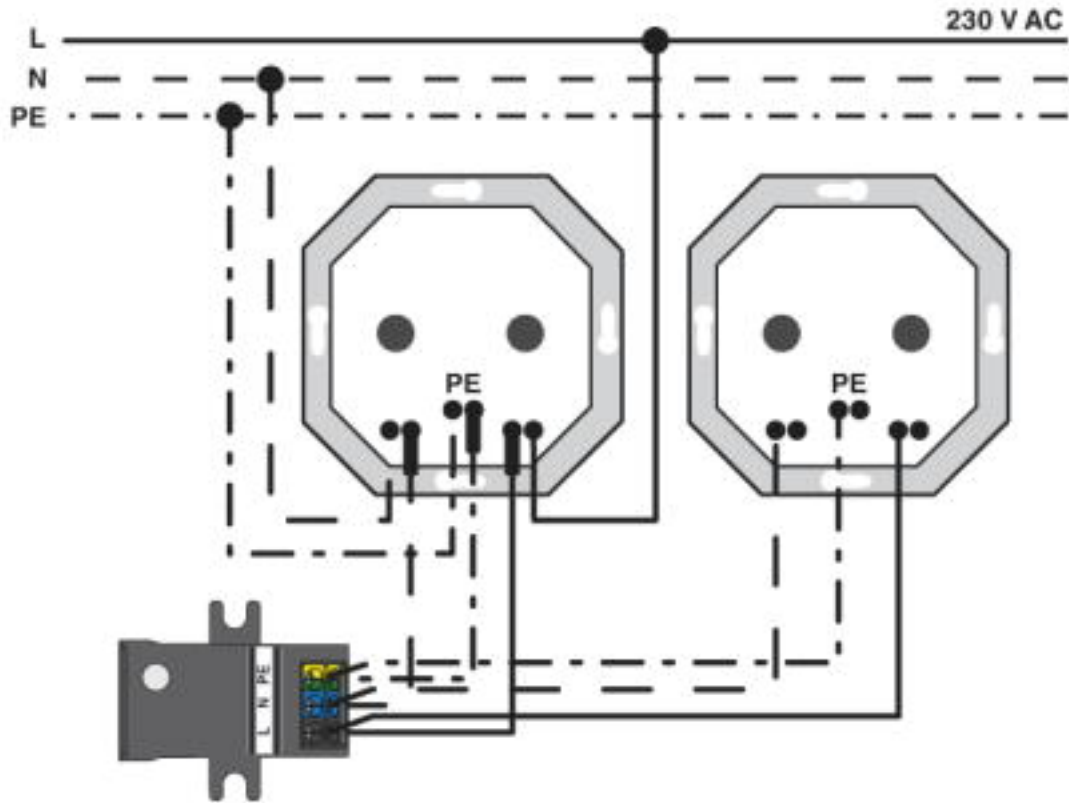
Application drawing



Installation in deep installation box - branch wiring

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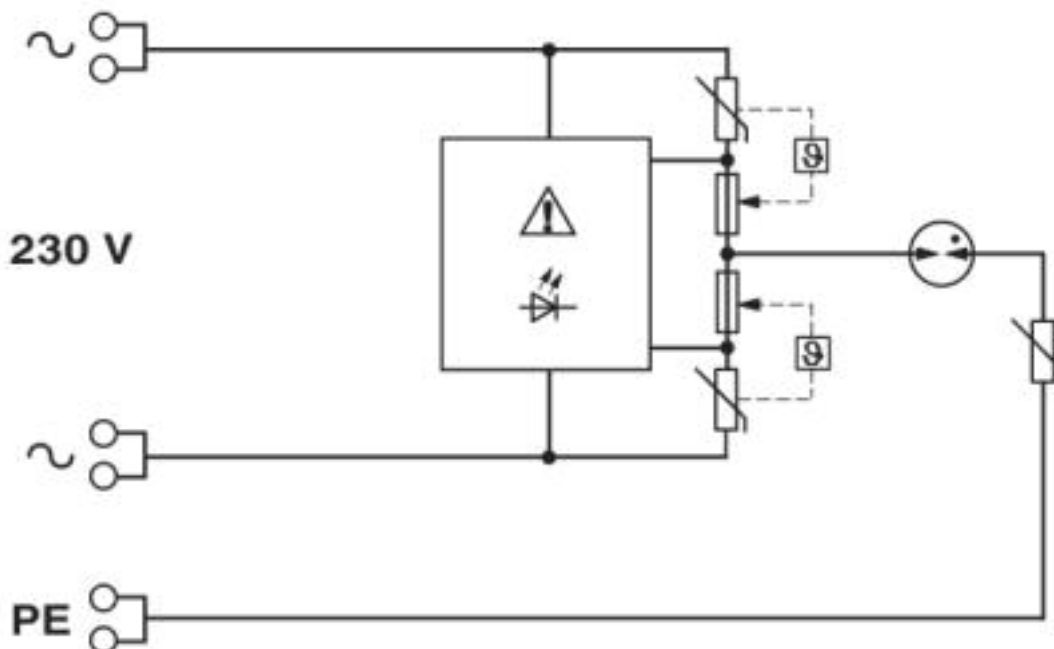
Application drawing



Installation in deep installation box - through wiring

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Circuit diagram



Classifications

eCl@ss

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

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Classifications

UNSPSC

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

Approvals

EAC

Ex Approvals

Approval details

EAC		RU C- DE.A*30.B01561
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