

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

Product Features

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

Key commercial data

package_quantity	1
GTIN	4046356620437

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

General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	EN 60664-1
Standards for air and creepage distances	IEC 60664-1
Standards for air and creepage distances	IEC 61643-1
Standards for air and creepage distances	EN 61643-11
Design	Installation module
Mounting type	Screw mounting
Number of positions	2
Direction of action	L(N)-PE

Protective circuit

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Technical data

Protective circuit

IEC test classification	III
EN type	T3
Nominal voltage U_N	240 V AC
Arrester rated voltage U_c (L-N)	275 V AC
Arrester rated voltage U_c (L-PE)	440 V AC (4-conductor IT system)
Nominal frequency f_N	50 Hz
Nominal frequency f_N	60 Hz
Nominal current I_N	16 A (30 °C)
Residual current I_{PE}	$\leq 1 \mu A$
Nominal discharge current I_n (8/20) μs	3 kA
Nominal discharge current I_n (8/20) μs (L-N)	3 kA
Nominal discharge current I_n (8/20) μs (L-PE)	3 kA
Nominal discharge current I_n (8/20) μs (N-PE)	3 kA
Max. discharge current I_{max} (8/20) μs	8 kA (> 100x 1 kA)
Max. discharge current I_{max} (8/20) μs maximum (L-N)	8 kA (> 100x 1 kA)
Combined surge 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-N)	≤ 1 kV (at 1 kA (8/20 μs))
Response time t_A (L-N)	≤ 25 ns (L-N)
Response time t_A (L-PE)	≤ 100 ns (L, N-PE)
Max. required back-up fuse	16 A (gL/C/B)
Short-circuit resistance I_p with max. backup fuse (effective)	3 kA
Message: Surge protection fault	Optical

Non-heating apparatus connection, power supply

Connection method	Spring-cage connection
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14

Standards and Regulations

Standards/specifications	EN 61643-11/A11 2007
Standards/specifications	IEC 61643-1 2005

classifications

eCl@ss

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classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130806
eCl@ss 7.0	27130806
eCl@ss 8.0	27130806

ETIM

ETIM 2.0	EC000942
ETIM 3.0	EC000942
ETIM 4.0	EC000942
ETIM 5.0	EC000942

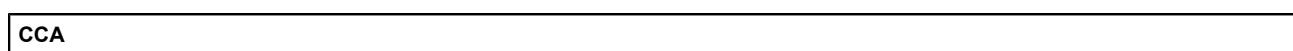
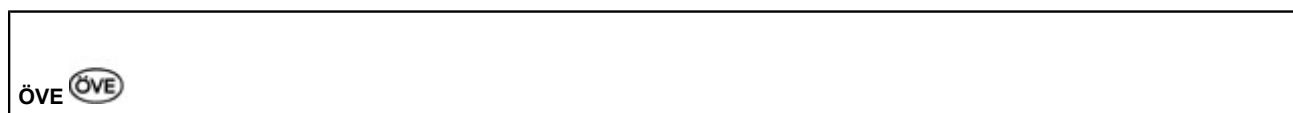
UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

approvals

KEMA-KEUR / VDE Zeichengenehmigung / ÖVE / CCA / IECEx CB Scheme /

Approval details



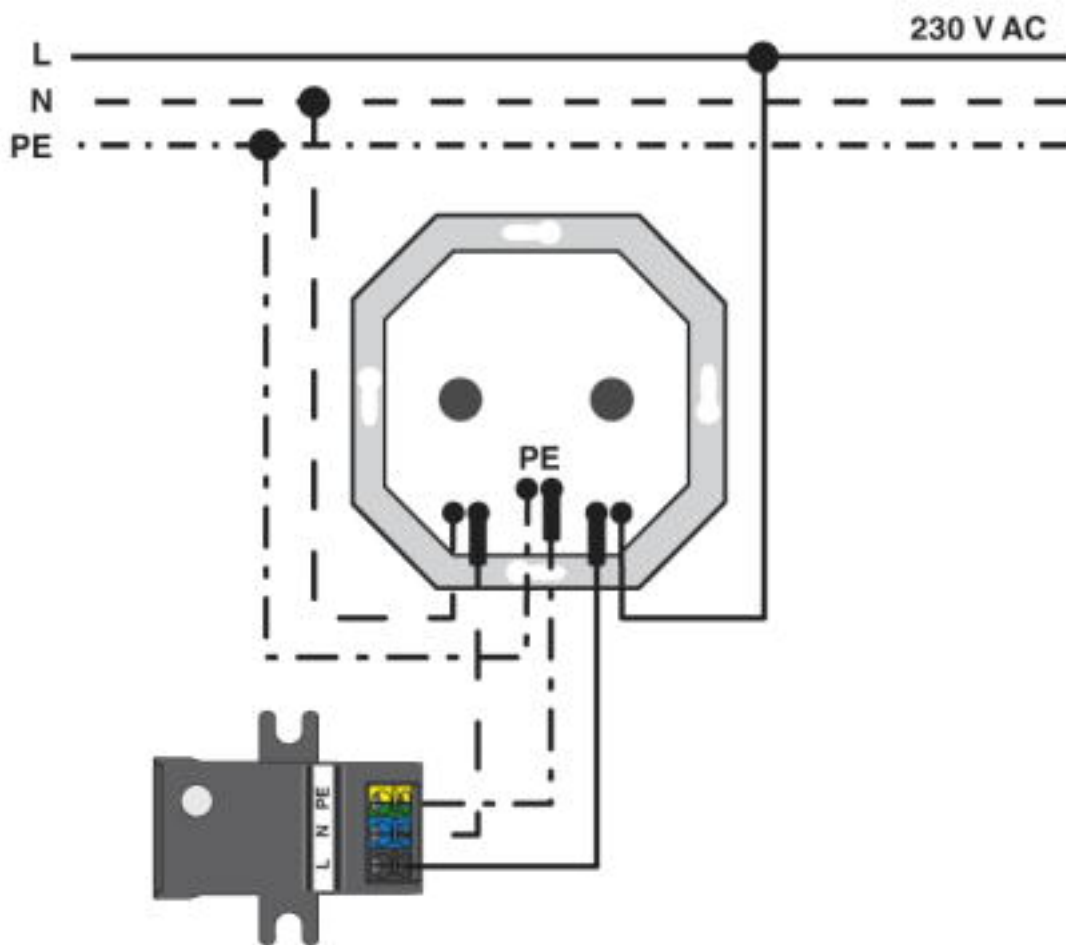
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approvals

IECEE CB Scheme CB
SCHEME

Drawings

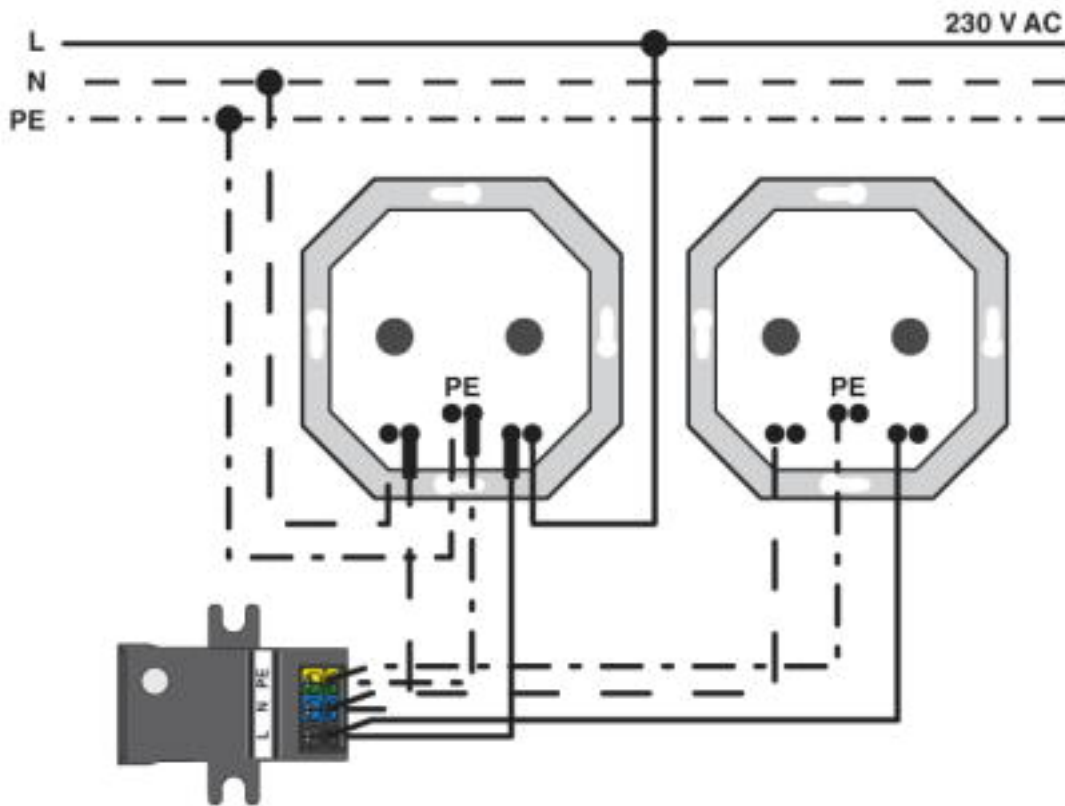
Application drawing



Installation in deep installation box - branch wiring

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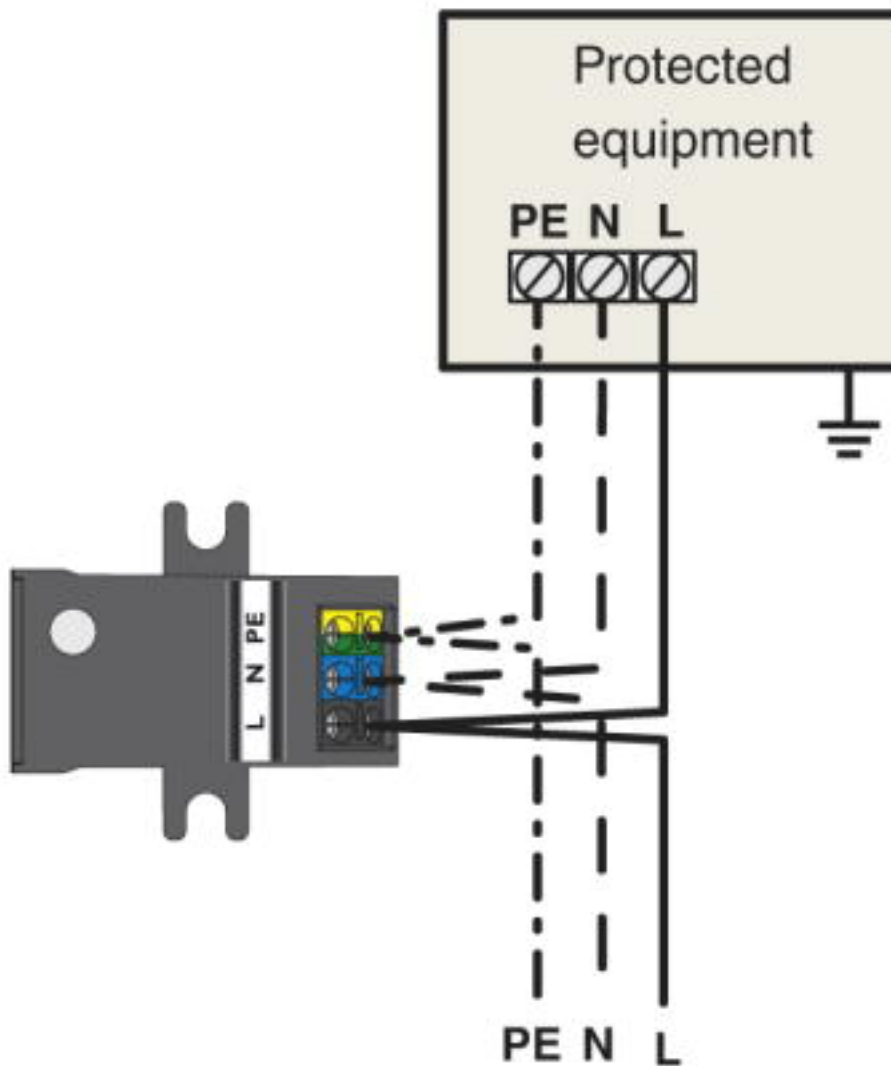
Application drawing



Installation in deep installation box - through wiring

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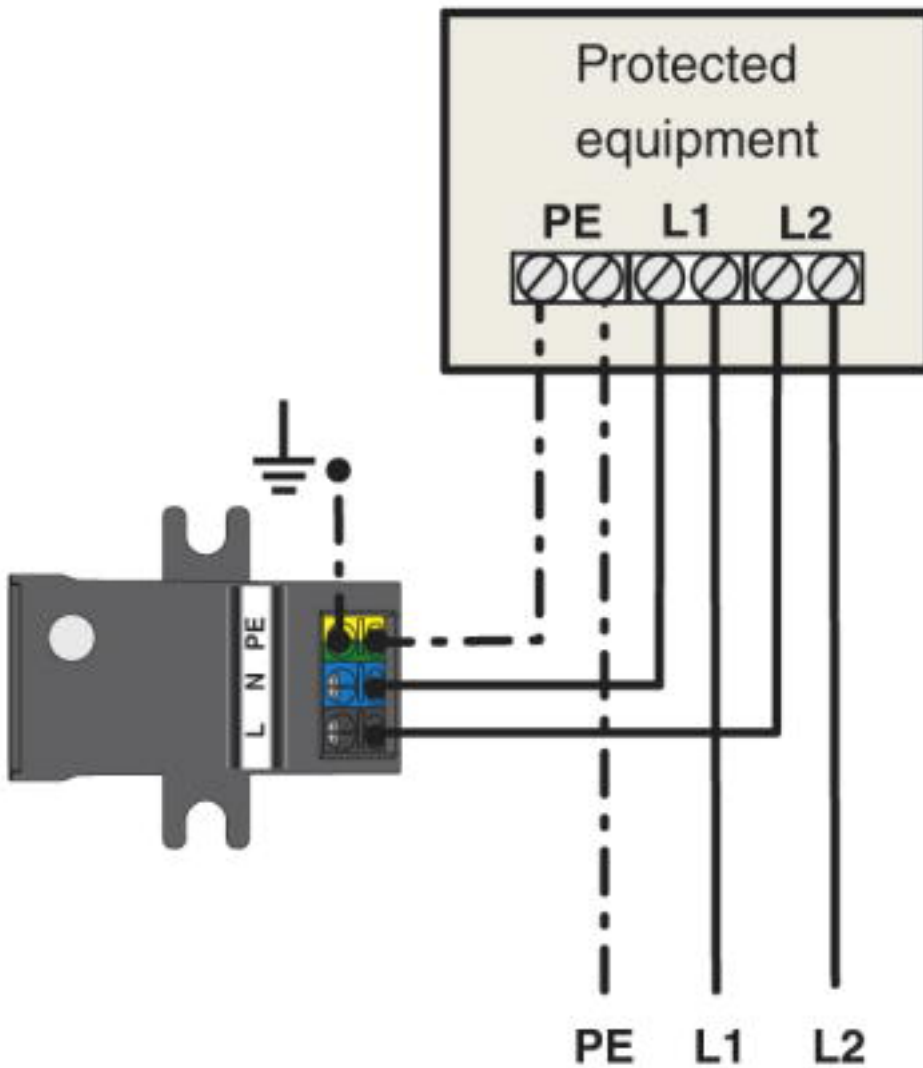
Application drawing



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

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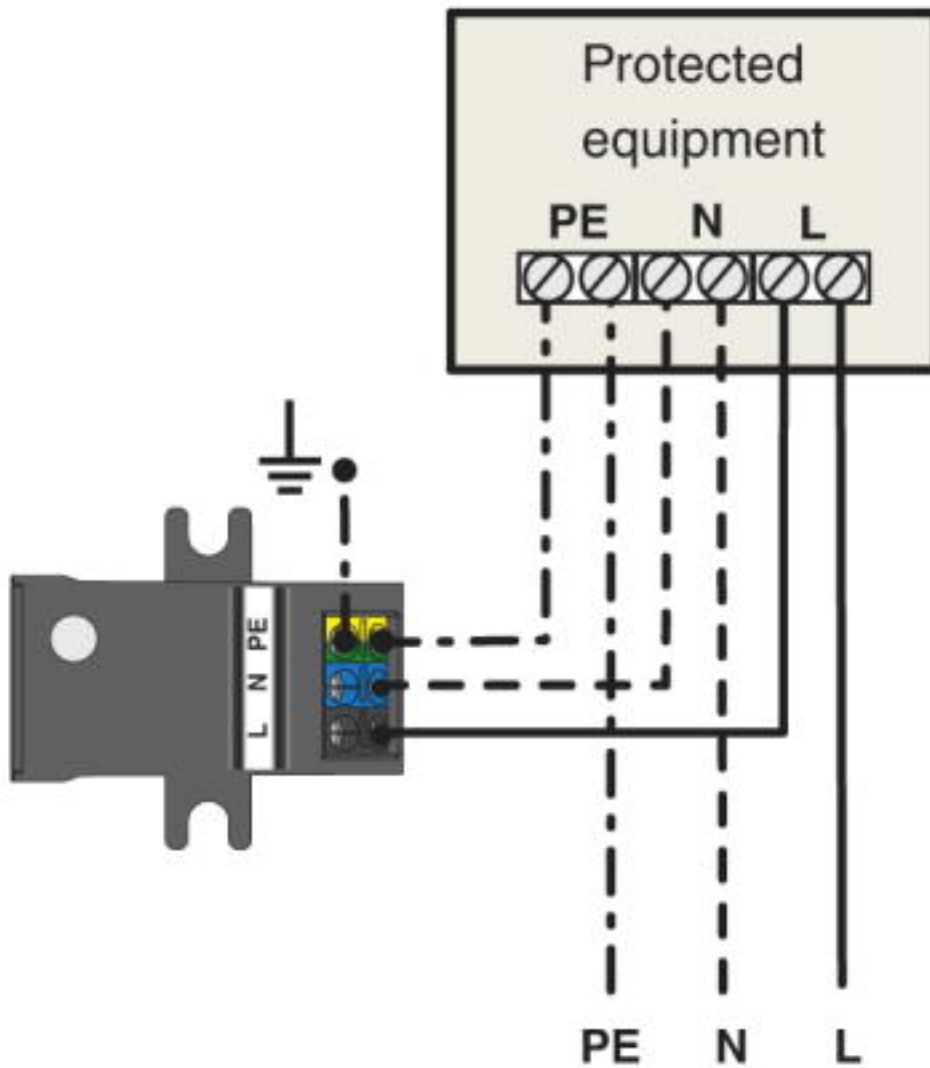
Application drawing



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

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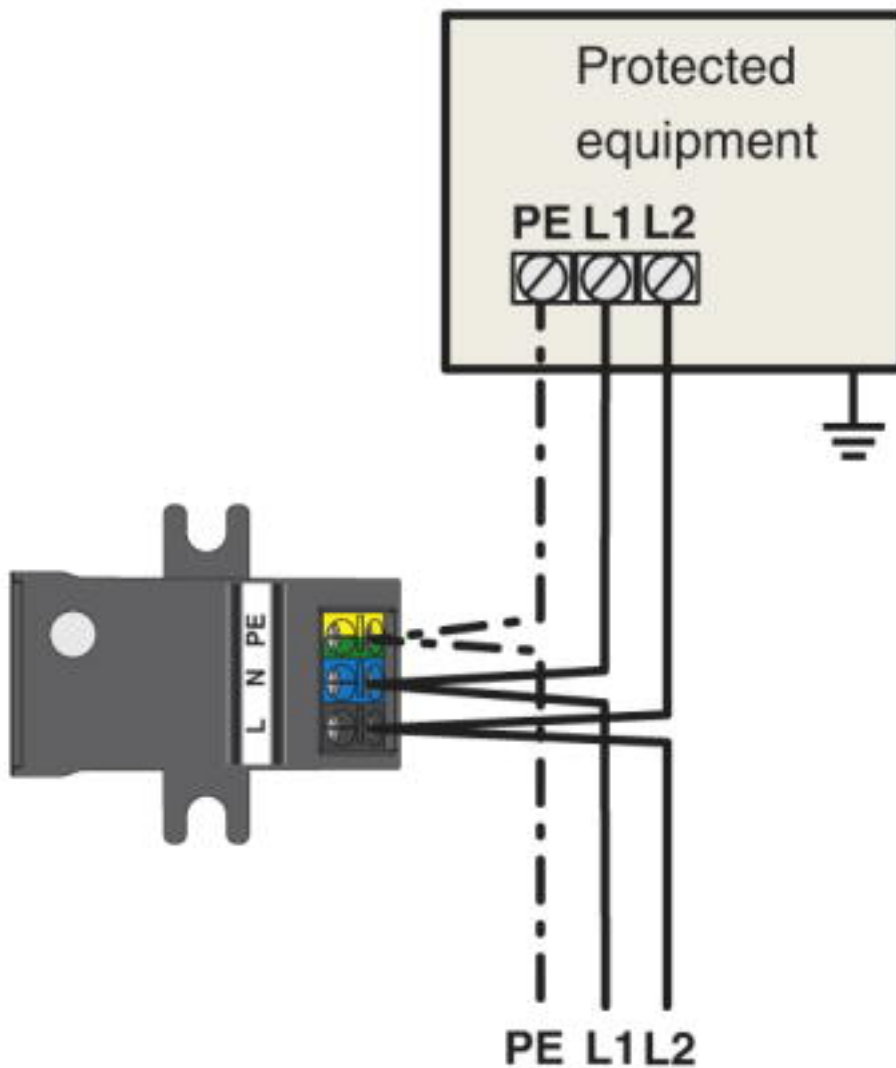
Application drawing



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

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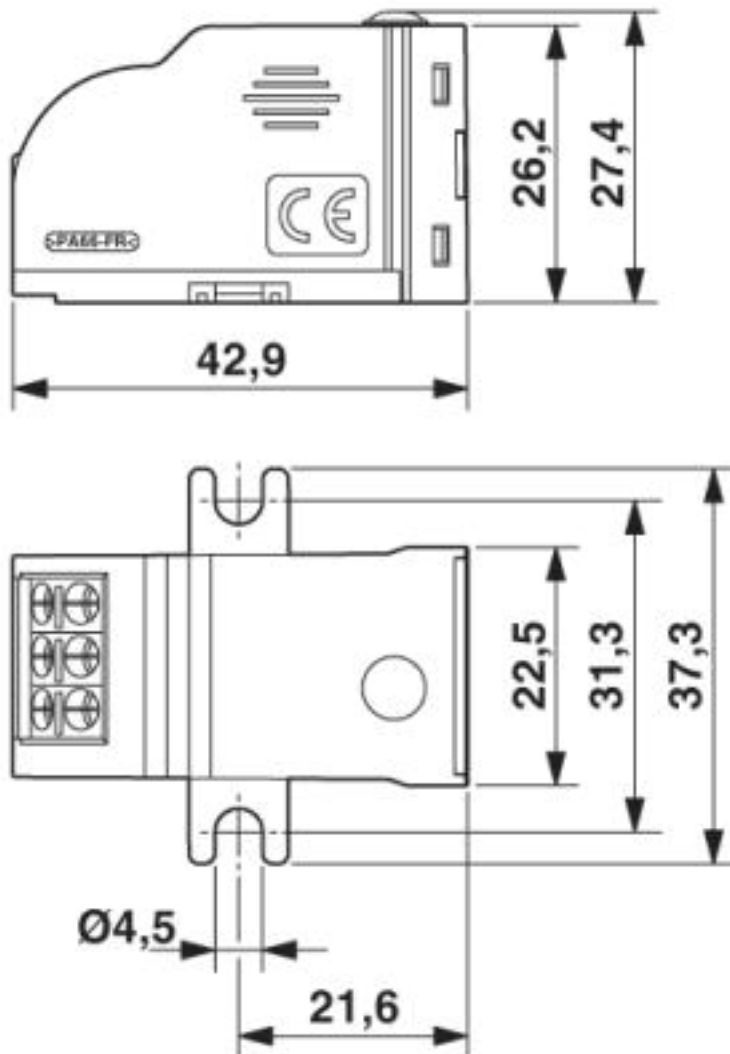
Application drawing



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

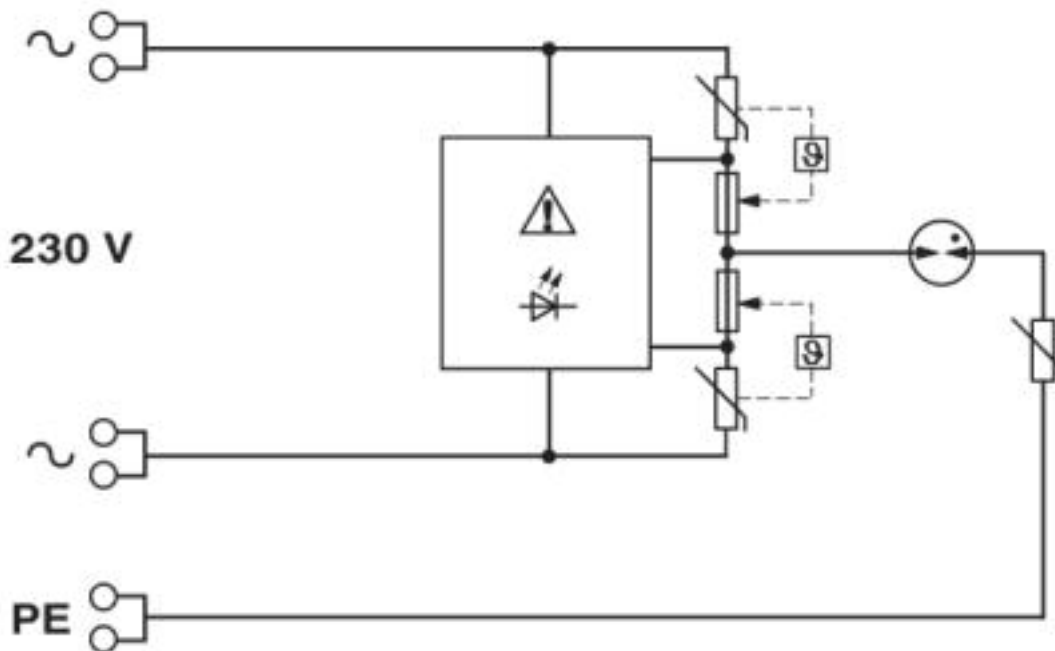
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Dimensioned drawing



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Circuit diagram



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