

Type 2 surge arrester - VAL-CP-RCD-3S/40/0.3/SEL - 2808001

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Combination of pluggable type 2 arrester and selective residual current circuit breaker (RCD switch) for 3-phase power supply networks (5-conductor system: L1, L2, L3, N, PE).

Your advantages

- ✓ Combination of type 2 surge arrester and RCD residual current device
- ✓ Optical, mechanical status indication for all protective plugs
- ✓ Personal protection and device protection in a single device
- ✓ Residual current device is not triggered by magnetic influences caused by discharge currents in the type 2 arrester
- ✓ Type 2 consistent plug-in surge arresters
- ✓ Disconnect device on each individual plug
- ✓ For 5-conductor systems; L1, L2, L3, N, PE



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 337472
GTIN	4046356337472

Technical data

Dimensions

Height	90 mm
Width	121 mm
Depth	76 mm
Horizontal pitch	7 Div.

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 40 °C
Ambient temperature (storage/transport)	-40 °C ... 60 °C
Altitude	≤ 2000 m (amsl (above mean sea level))

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Ambient conditions

Permissible humidity (operation)	5 % ... 95 %
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General

IEC test classification	II
	T2
EN type	T2
IEC power supply system	TN-S
	TT
Mode of protection	L-N
	L-PE
	N-PE
Mounting type	DIN rail: 35 mm
Color	light gray
Housing material	PBT-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	4
Surge protection fault message	optical

Protective circuit

Nominal voltage U_N	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C (L-N)	350 V AC
Maximum continuous voltage U_C (N-PE)	264 V AC
Rated load current I_L	40 A
Residual current I_{PE}	$\leq 1 \mu A$
Nominal discharge current I_n (8/20) μs	20 kA
Maximum discharge current I_{max} (8/20) μs	30 kA
Follow current interrupt rating I_{fi} (N-PE)	100 A (264 V AC)
Short-circuit current rating I_{SCCR}	10 kA
Voltage protection level U_p (L-N)	≤ 2 kV
Voltage protection level U_p (N-PE)	≤ 2 kV
Residual voltage U_{res} (L-N)	≤ 1.8 kV (at I_n)
	≤ 1.5 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1 kV (at 3 kA)
Residual voltage U_{res} (L-PE)	≤ 2.5 kV (at I_n)
	≤ 2 kV (at 10 kA)
	≤ 1.4 kV (at 5 kA)

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Protective circuit

	≤ 1.1 kV (at 3 kA)
Residual voltage U_{res} (N-PE)	≤ 0.7 kV (at I_n)
	≤ 0.4 kV (at 10 kA)
	≤ 0.3 kV (at 5 kA)
	≤ 0.2 kV (at 3 kA)
TOV behavior at U_T (L-N)	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
TOV behavior at U_T (N-PE)	1200 V AC (200 ms / withstand mode)
Response time t_A (L-N)	≤ 25 ns
Response time t_A (N-PE)	≤ 100 ns
Max. backup fuse with branch wiring	63 A AC (MCB)

Connection data

Connection name	Connection protective circuit
Connection method	Screw connection
Tightening torque	3.5 Nm
Stripping length	15 mm
Conductor cross section flexible	4 mm ² ... 25 mm ²
Conductor cross section solid	4 mm ² ... 25 mm ²
Conductor cross section AWG	12 ... 4
Connection name	Protective ground connection
Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible	2.5 mm ² ... 16 mm ²
Conductor cross section solid	2.5 mm ² ... 25 mm ²
Conductor cross section AWG	12 ... 4

RCD switch

Rated residual operating current $I_{\Delta n}$	300 mA
Rated making and breaking capacity I_m	1.5 kA
Rated residual making and breaking capacity $I_{\Delta m}$	2.5 kA
Rated impulse withstand voltage U_{imp}	6 kV (1.2/50 μs)
Rated conditional short-circuit current I_{nc}	10 kA
Tripping time for $I_{\Delta n}$	≤ 300 ms
Tripping time for $5xI_{\Delta n}$	≤ 40 ms
Switching cycles, max.	20000
Utilization category	AC 23 A
Insulation voltage U_i	440 V

Standards and Regulations

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Standards and Regulations

Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012
	EN 61008-1
	IEC 60947-1
	IEC 60947-3

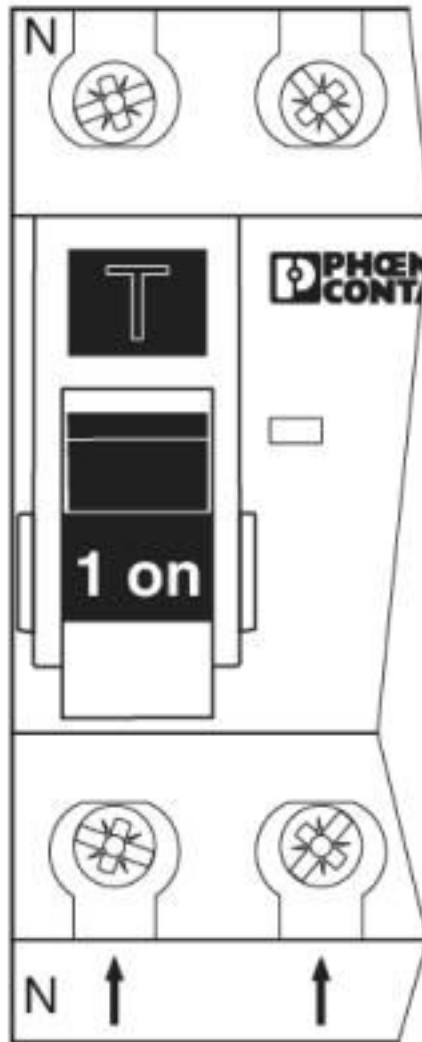
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Type 2 surge arrester - VAL-CP-RCD-3S/40/0.3/SEL - 2808001

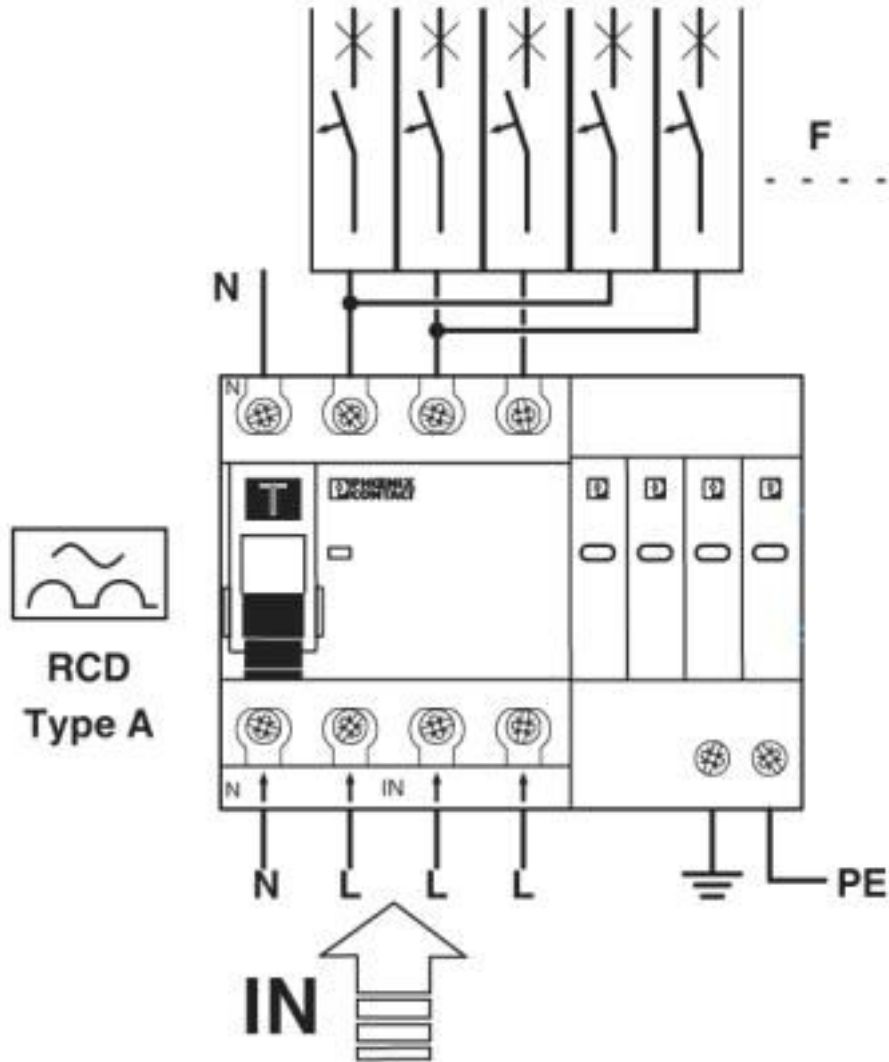
Functional drawing



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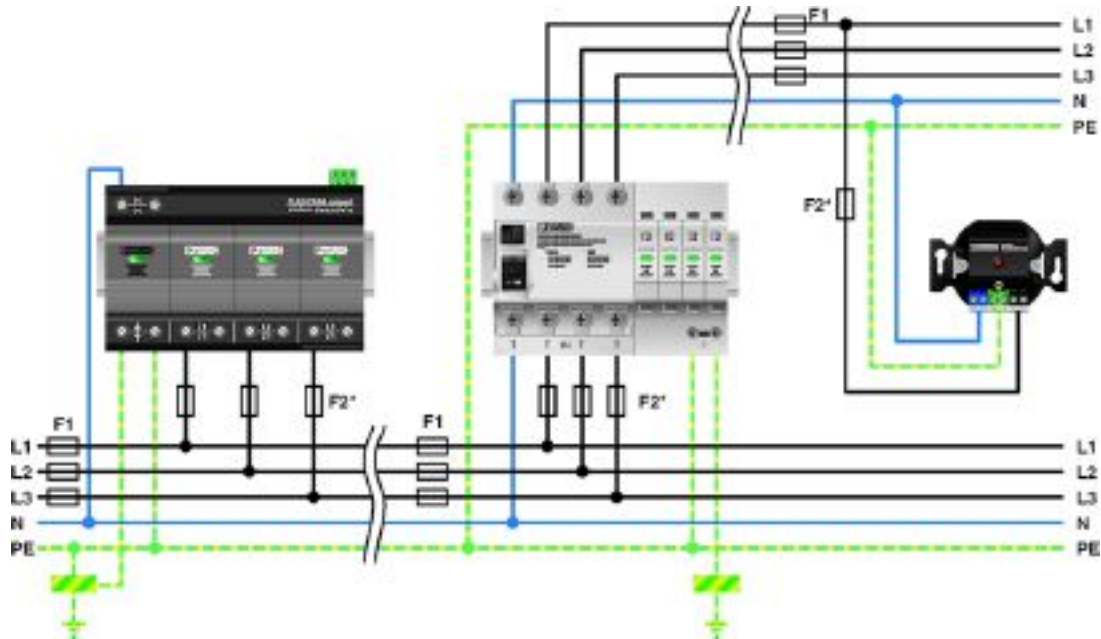
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Connection diagram

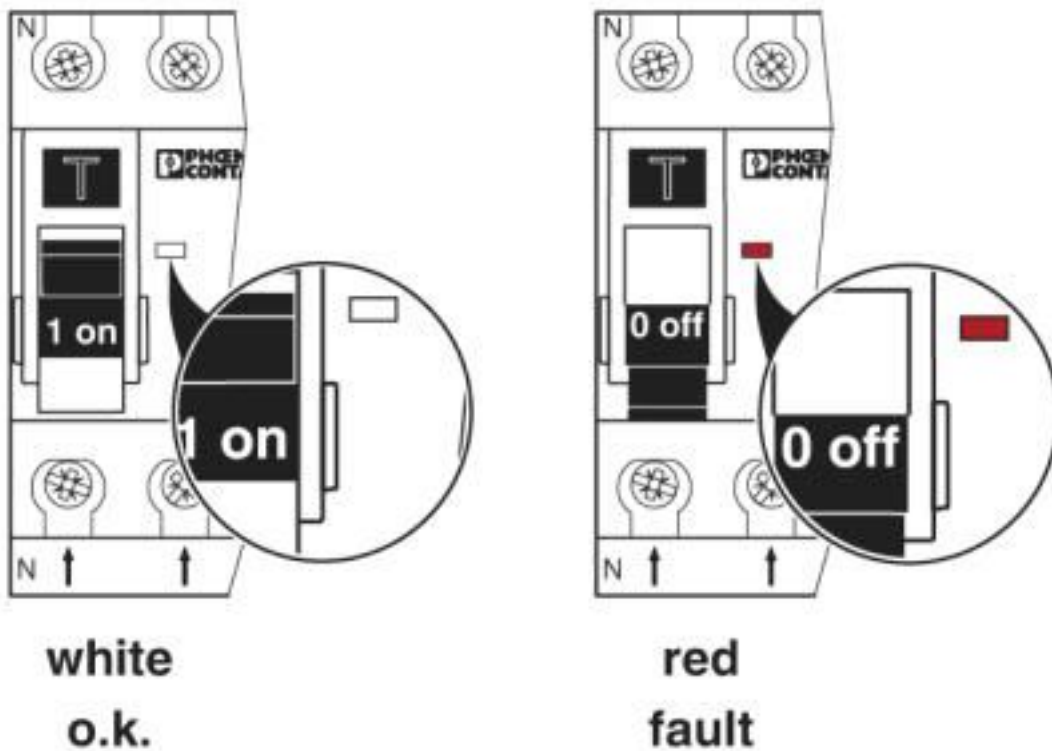


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Application drawing

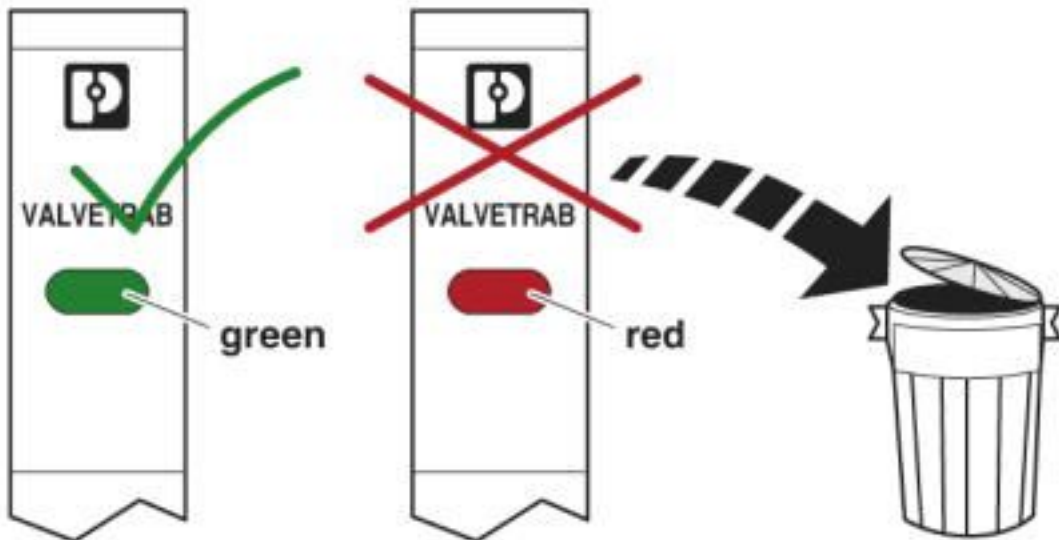


Functional drawing

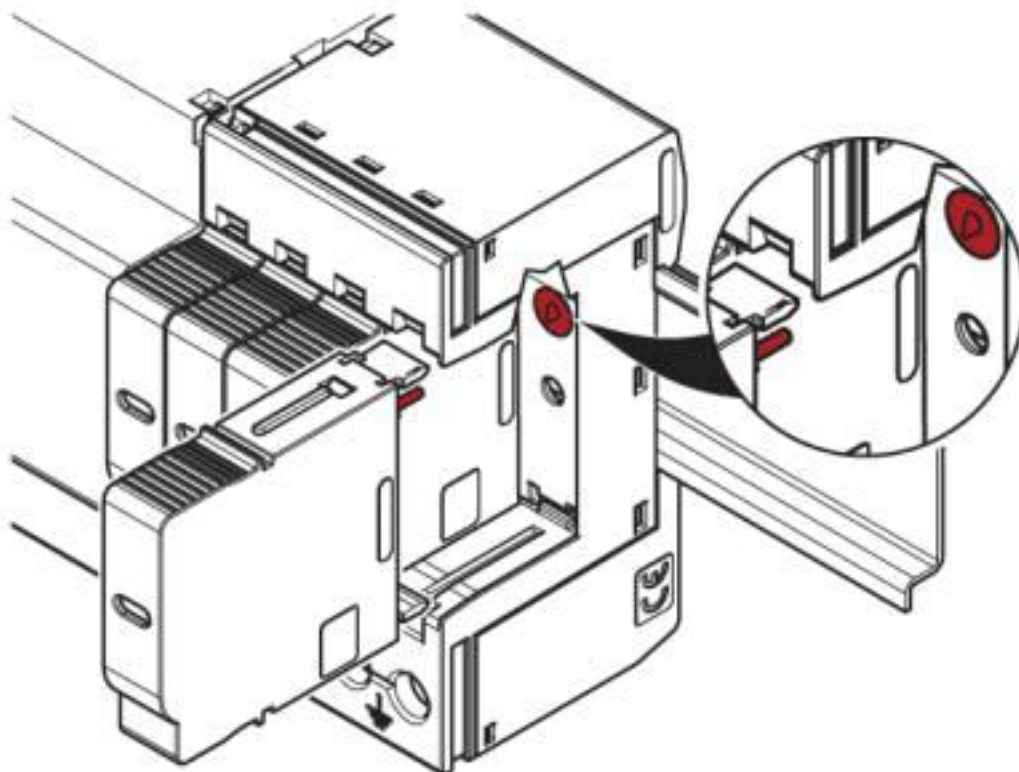


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Functional drawing

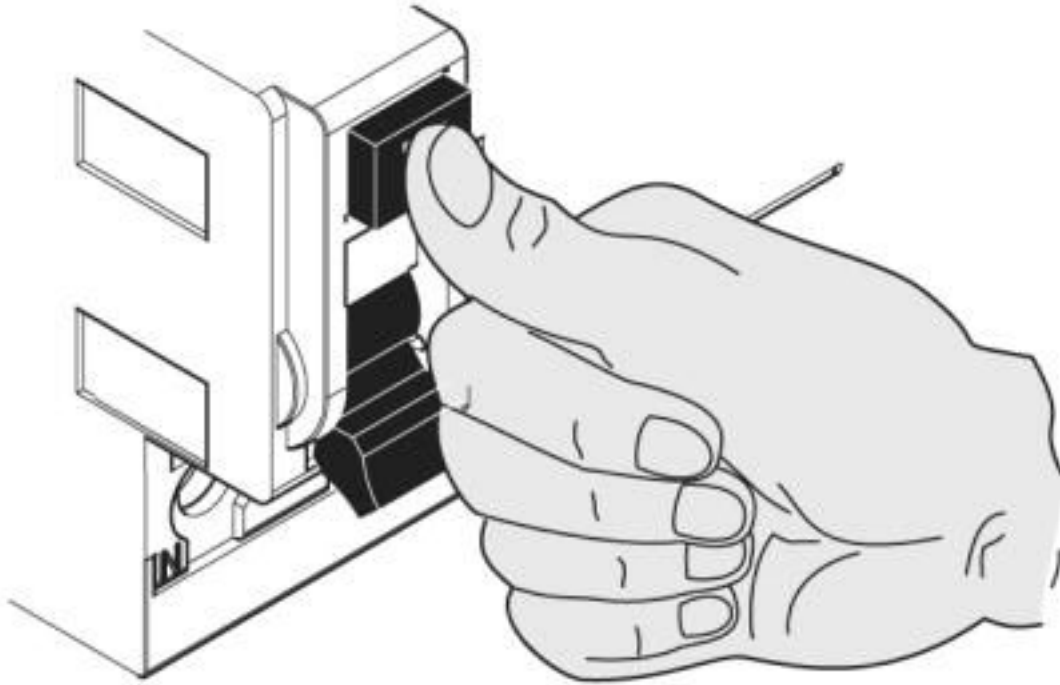


Functional drawing



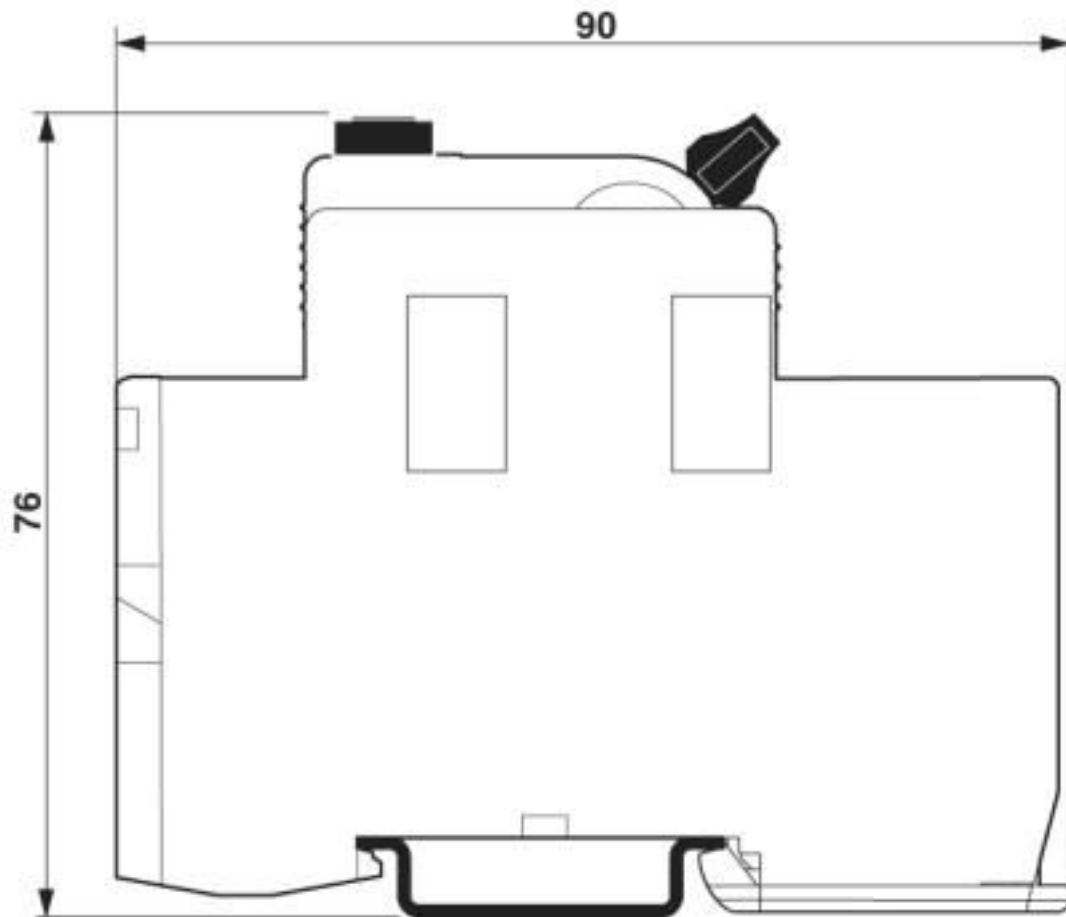
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Functional drawing

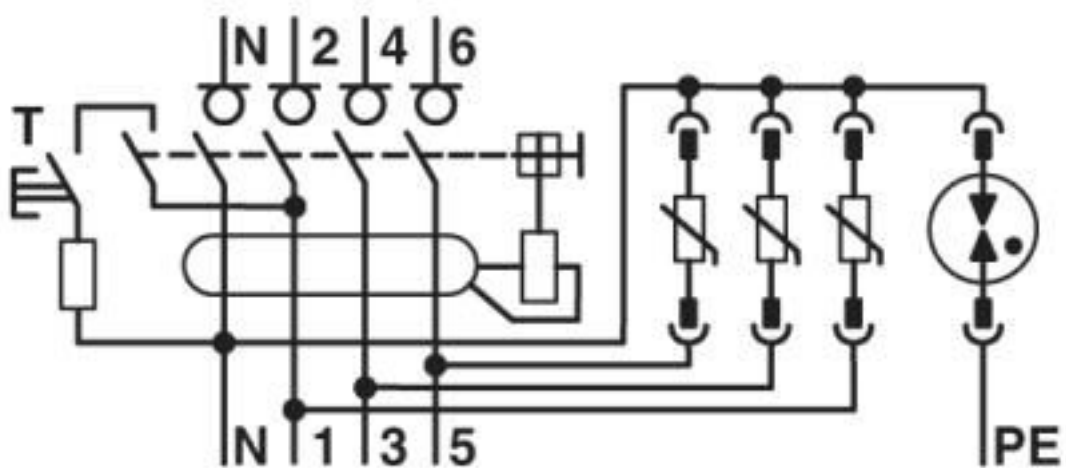


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Dimensional drawing



Circuit diagram



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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	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130805
eCl@ss 8.0	27130805
eCl@ss 9.0	27130805

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941
ETIM 6.0	EC000941

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 19.0	39121620

Accessories

Accessories

Bridge

Wiring bridge - MPB SET VAL-CP-3S - 2880684



Wiring bridge set, consisting of three flexible bridges 15 cm black, 1 bridge 27 cm blue.

Spare parts

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Accessories

Type 2 surge protection plug - VAL-CP-350-ST-GY - 2882718



Replacement plug for VAL-CP surge protective device with high-capacity varistor with a low leakage current.

Type 2 surge protection plug - VAL-CP-N/PE-350-ST-GY - 2882734



Replacement plug for VAL-CP surge arrester with N-PE spark gap.

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