



Function

Residual current circuit breakers ensure:

- the control and isolation of electrical circuits
- the protection of persons against direct and indirect contacts
- the protection of installations against insulation faults.

They conform to both the residual current device standard IEC 61008 and to switch standards IEC 60947-1 and IEC 60947-3.

Residual current circuit breakers are used in the housing, tertiary and industrial sectors.

AC class

Tripping is ensured for sinusoidal, alternating currents, whether they be quickly applied or slowly increase.

A class

Tripping is ensured for sinusoidal, alternating residual currents as well as for pulsed DC residual currents, whether they be quickly applied or slowly increase.

Application: loads with electronics, rectifiers, instruments.

"si" type

Reinforced continuity of supply on disturbed networks with:

- a high risk of nuisance tripping:
 - successive lightning strokes
 - IT earthing system
 - variable speed controllers, frequency converters
 - presence of electronic ballasts
 - presence of switchgear that incorporates interference filters i.e. lighting, micro-computing, etc.
- sources of blinding:
 - presence of harmonics or high frequency rejection
 - presence of DC components: diodes, thyristors, triacs
 - low temperature.

"SiE" type

The RCCB/ID "SiE" types are particularly suitable for use in humid environments and/or environments polluted by aggressive agents, for example swimming pools, marinas, the food-processing industry, water treatment plants, industrial sites. They also incorporate RCCB/ID "si" functions.

Instantaneous

It ensures instantaneous tripping (no time-delay).

Selective

Total discrimination can be achieved using a non-selective residual current device placed downstream.

Description

The residual current trip unit is electromechanical. It functions without an auxiliary source.

Technical data

- Voltage rating:
 - 230...400 V AC, -15...+10 %.
- Frequency rating:
 - AC and A classes: 50/60 Hz
 - "si" and "SiE" types: 50 Hz.
- Current rating (I_{th}) at 40 °C: 16...100 A.
- As in IEC 61008:
 - breaking and making capacity:
 - rated residual (I_{Dm}): 2.5 kA
 - rated (I_m): 1.5 kA.
- As in IEC 60947-3:
 - isolation with positive break indication, opening is indicated by a green strip on the device operating handle. This indicator shows that all poles are open.
 - rated impulse withstand
 - voltage (U_{imp}): 6 kV
 - insulation voltage (U_i): 440 V
 - utilization category:
 - AC 23A rating y 63 A
 - AC 22B ratings 80 and 100 A
 - padlocking in the "tripped" position is possible using the padlocking device (not supplied) (see page 91903/2).

"si" and "SiE" type, A and AC class RCCB-ID 10 mA, 30 mA, 100 mA, 300 mA and 500 mA instantaneous 100 mA , 300 mA , 500 mA

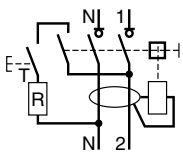
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- Protected against nuisance tripping due to transient overvoltages (lightning, switchgear operation on the network, etc.).
- Impulse withstand level 8/20 μ s:
 - AC and A classes:
 - 250 A for instantaneous
 - 3 kA for 
 - "si" and "SiE" type:
 - 3 kA for instantaneous
 - 5 kA for 
- Short-circuit current withstand ($I_{Dc} = I_{nc}$): 10 kA with 100 A fuse upstream
- Number of operations (O-C): 20 000.
- Trip units with fixed sensitivities for all ratings:
 - instantaneous trip unit
 - selective trip unit: total vertical selectivity can be achieved using 30 mA residual current devices placed downstream.
- Indication:
 - mechanical: earth fault indication on front panel by means of a mechanical indicator
 - electrical: using auxiliaries (see page 90142/2).
- Remote tripping: using auxiliaries (see page 90142/2).
- Environment:
 - tropicalisation: treatment 2 (relative humidity 95 % at 55 °C)
 - operating temperature:
 - AC class: -5...+40 °C
 - A class, "si" and "SiE" type: -25...+40 °C
 - storage temperature: -40...+60 °C
 - weight (g):

Type	2P	4P
	230	450

- Connection using tunnel terminals for flexible 35 mm² cable or rigid 50 mm² cable.
- Can be directly connected using comb busbars on 2P residual current circuit breakers when using the P'clac adapter (see page 90150/2).
- Conform with standards:
 - IEC 61008
 - IEC 60947-1
 - IEC 60947-3.

Catalogue numbers

AC class RCCB-ID residual current circuit breakers					
Type	Voltage (V AC)	Rating (A)	Sensitivity (mA)	Catalogue number	width in mod. of 9 mm
2P					
	230	25	10	23008	4
			30	23009	4
			300	23011	4
			500	23012	4
			30	23014	4
		40	30 g	23072	4
			100	23015	4
			100 g	23073	4
			300	23016	4
			500	23017	4
	450	63	30	23018	4
			300	23021	4
			300 	23028	4
			500	23022	4
			500 	23029	4
		80	30	23020	4
			300	23030	4
			300 	23032	4
			500	23026	4
			500 	23033	4
	100	100	300	23034	4
			300 	23035	4

"si" and "SiE" type, A and AC class RCCB-ID 10 mA, 30 mA, 100 mA, 300 mA and 500 mA instantaneous 100 mA[S], 300 mA[S], 500 mA[S]

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Catalogue numbers

AC class RCCB-ID residual current circuit breakers (cont.)

Type	Voltage (V AC)	Rating (A)	Sensitivity (mA)	Catalogue number	width in mod. of 9 mm
4P					
	230/400	25	30	23038	8
			300	23040	8
			500	23041	8
		40	30	23042	8
			30 g	23074	8
			100	23536	8
			100 g	23075	8
			300	23045	8
			300 [S]	23062	8
			500	23046	8
			500 [S]	23063	8
		63	30	23047	8
			30 g	23532	8
			100	15177	8
			100 g	23533	8
			300	23049	8
			300 [S]	23066	8
		80	500	23051	8
			500 [S]	23067	8
			30	23061	8
			300	23054	8
			300 [S]	23069	8
			500	23055	8
		100	500 [S]	23070	8
			300	23056	8
			300 [S]	23059	8

A class RCCB-ID residual current circuit breakers

2P

230

16	10	23415	4
25	10	23353	4
	30	23354	4
	300	23356	4
40	30	23358	4
	300	23360	4
	300 	23265	4
63	30	23362	4
	300	23364	4
	300 	23370	4
	500 	23371	4
80	300 	23272	4
100	300 	23279	4

4P

230/400

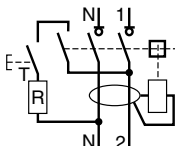
25	30	23378	8
	300	23380	8
	500	23381	8
40	30	23382	8
	100	23304	8
	100 	23490	8
	300	23384	8
	300 	23399	8
	500	23385	8
63	30	23386	8
	100 	23494	8
	300	23388	8
	300 	23402	8
	500	23389	8
80	300	23326	8
	300 	23284	8
	500 	23376	8
100	300 	23294	8

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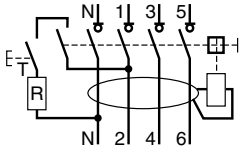
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Catalogue numbers

"si" type RCCB-ID residual current circuit breakers

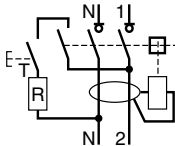
Type	Voltage (V AC)	Rating (A)	Sensitivity (mA)	Catalogue number	width in mod. of 9 mm
2P					
	230	25	30	23523	4
		40	30	23524	4
		63	30	23525	4
			300 	23363	4
		80	300 	23372	4

4P

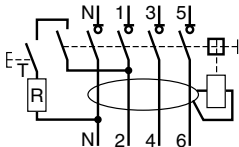
	230/400	25	30	23526	8
		40	30	23529	8
		63	30	23530	8
			300 	23392	8
		80	30	23390	8
			300 	23394	8

"SiE" type RCCB-ID residual current circuit breakers

2P

	230	25	30	23300	4
		40	30	23307	4
			300 	23314	4
		63	30	23352	4
			300 	23355	4

4P

	230/400	25	30	23377	8
		40	30	23379	8
			300 	23398	8
		63	30	23383	8
			300 	23401	8

Additional information

Dimensions: page 90148/2

Auxiliaries: page 90142/2-90150/2

Accessories: page 91900/2-91903/2