

B type RCCBs Ex9LB63

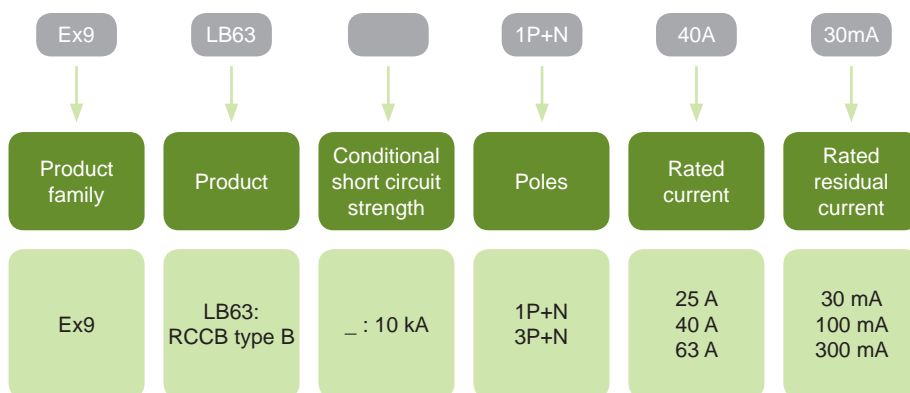


- Residual Current Circuit Breakers according to IEC/EN 61008-1 and IEC/EN 62423
- Cond. rated short circuit strength I_{nc} 10 kA
- B type
- 2 and 4-pole versions
- Rated residual current 30, 100 and 300 mA
- Rated current up to 63 A
- Rated operational voltage 230/400 V AC
- Indication of electrical tripping
- Suitable for applications from -25 to +40 °C

Residual current circuit breakers B type Ex9LB63 are suitable for domestic as well as industrial applications, where are used frequency inverters, PV plant, EV chargers and similar elements. B type provides a sensitivity to residual AC, pulsating and smooth DC current, together with high frequencies up to 1 kHz.

They are based on electronic technology, which brings advantages of more accurate measuring of residual current and, as a consequence, reduction of unwanted tripping. These devices also do not suffer with magnetization of the tripping unit. Thus, there is no mandatory testing period, but they must be tested regularly. On this testing period local law or regulations may apply. Recommend is to test it every 6 months in fair environment and every month in heavy condition.

Type Key



Certification marks



B type RCCBs Ex9LB63

B type, 2-pole

- B type - sensitivity to residual AC, pulsating and smooth DC current, high frequency up to 1 kHz
- Without time delay
- Surge current-proof 3000 A
- 30 mA version suitable for protection of people in case of direct and indirect contact with live parts and exposed conductive parts during a fault, respectively



Rated current	Rated residual current	Poles	Article No.	Type	Packing
25 A	30 mA	2	110212	Ex9LB63 1P+N 25A 30mA	1/72
40 A	30 mA	2	110213	Ex9LB63 1P+N 40A 30mA	1/72
63 A	30 mA	2	110214	Ex9LB63 1P+N 63A 30mA	1/72
25 A	100 mA	2	110215	Ex9LB63 1P+N 25A 100mA	1/72
40 A	100 mA	2	110216	Ex9LB63 1P+N 40A 100mA	1/72
63 A	100 mA	2	110217	Ex9LB63 1P+N 63A 100mA	1/72
25 A	300 mA	2	110218	Ex9LB63 1P+N 25A 300mA	1/72
40 A	300 mA	2	110219	Ex9LB63 1P+N 40A 300mA	1/72
63 A	300 mA	2	110220	Ex9LB63 1P+N 63A 300mA	1/72

B type, 4-pole



Rated current	Rated residual current	Poles	Article No.	Type	Packing
25 A	30 mA	4	110221	Ex9LB63 3P+N 25A 30mA	1/45
40 A	30 mA	4	110222	Ex9LB63 3P+N 40A 30mA	1/45
63 A	30 mA	4	110223	Ex9LB63 3P+N 63A 30mA	1/45
25 A	100 mA	4	110224	Ex9LB63 3P+N 25A 100mA	1/45
40 A	100 mA	4	110225	Ex9LB63 3P+N 40A 100mA	1/45
63 A	100 mA	4	110226	Ex9LB63 3P+N 63A 100mA	1/45
25 A	300 mA	4	110227	Ex9LB63 3P+N 25A 300mA	1/45
40 A	300 mA	4	110228	Ex9LB63 3P+N 40A 300mA	1/45
63 A	300 mA	4	110229	Ex9LB63 3P+N 63A 300mA	1/45

Technical Data Ex9LB63

Residual Current Circuit Breakers type B, 10 kA

General parameters

Electronic evaluation principle - more accurate measuring of residual current
Suitable for household as well as industrial applications
B type - sensitivity to residual AC, pulsating and smooth DC current, high frequency up to 1 kHz
Device must be tested regularly. Local laws or regulations can be applied. Recommend is a testing period of 6 months in normal condition, 1 month in heavy conditions
In case all wires are not connected at 4-pole RCCB, it is necessary to ensure that circuit of the test button T is supplied with appropriate voltage (by means of mutual connection of respective terminals of the RCCB, see wiring diagram)
Internal SPD protection to improve service life and make it applicable to multiple installation environments
Parallel construction of the type A/AC and type B internal parts. If required voltage is not available for type B internal electronics, the protection type A and AC will be still provided
Indication of electrical tripping

Electrical parameters

Tested according to	IEC/EN 61008-1, IEC/EN 62423
Rated operational voltage U_e	230/240 V AC (2-pole) 400/415 V AC (4-pole)
Min. voltage for RCD function	voltage independent for type A and AC voltage dependent for type B (from 85 V AC)
Voltage range of the test button T	150 — 254 V AC (2-pole) 150 — 440 V AC (4-pole)
Rated frequency f	50 Hz
Conditional short circuit strength I_{nc}	10 kA
Rated current I_n	25, 40, 63 A
Rated residual current $I_{\Delta n}$	30, 100, 300 mA
Sensitivity to residual current	B type - residual AC, pulsating and smooth DC current, high frequency (1 kHz)
Rated impulse withstand voltage U_{imp}	4 kV
Rated insulation voltage U_i	500 V
Surge current proof	3000 A
Mechanical service life	10 000 operation cycles
Electrical service life	2 000 operation cycles
Back-up fuse for overload	
$I_n = 25$ A	max. 25 A gG
$I_n = 40$ A	max. 32 A gG
$I_n = 63$ A	max. 50 A gG
Back-up fuse for short circuit	
$I_n = 25$ A	max. 63 A gG
$I_n = 40$ A	max. 63 A gG
$I_n = 63$ A	max. 63 A gG
Rated making capacity I_m (rated residual making capacity $I_{\Delta m}$)	
$I_n = 25$ A	500 A
$I_n = 40$ A	500 A
$I_n = 63$ A	630 A
Line voltage connection	arbitrary above or below

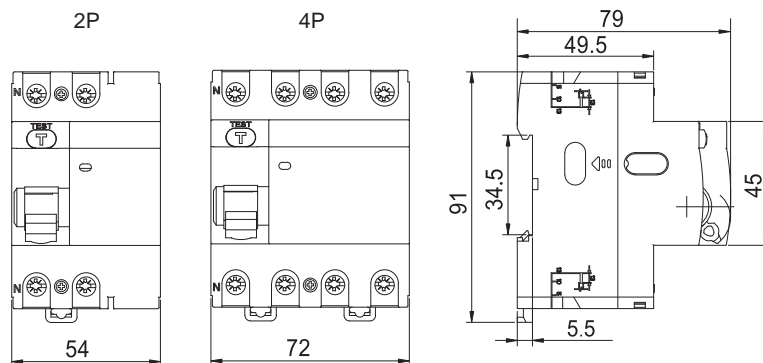
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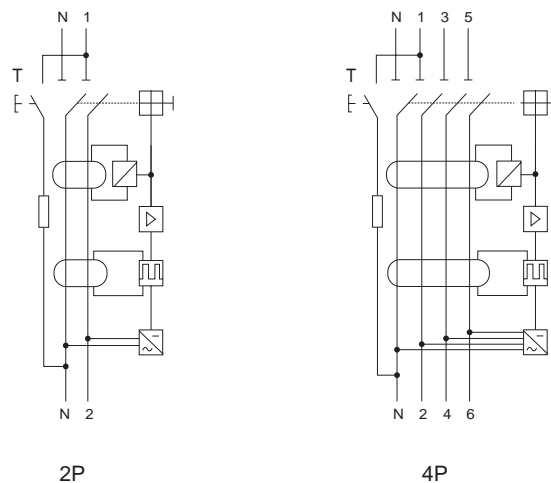
Mechanical parameters

Device width	54 mm (2-pole), 72 mm (4-pole)
Device height	91 mm including rail clip
Frame size	45 mm
Mounting	easy fastening onto 35 mm device rail (DIN)
Degree of protection	IP20
Terminals	combined lift + open mouthed
Terminal capacity	1 — 25 mm ²
Fastening torque of terminals	2.5 Nm
Busbar thickness	0.8 — 2 mm
Ambient temperature	-25 — +40 °C
Altitude	≤ 2000 m
Relative humidity	≤ 95 %
Resistance to humidity and heat	class 2
Pollution degree	2
Installation class	III
Weight	0.28 kg (2-pole), 0.43 kg (4-pole)

Dimensions



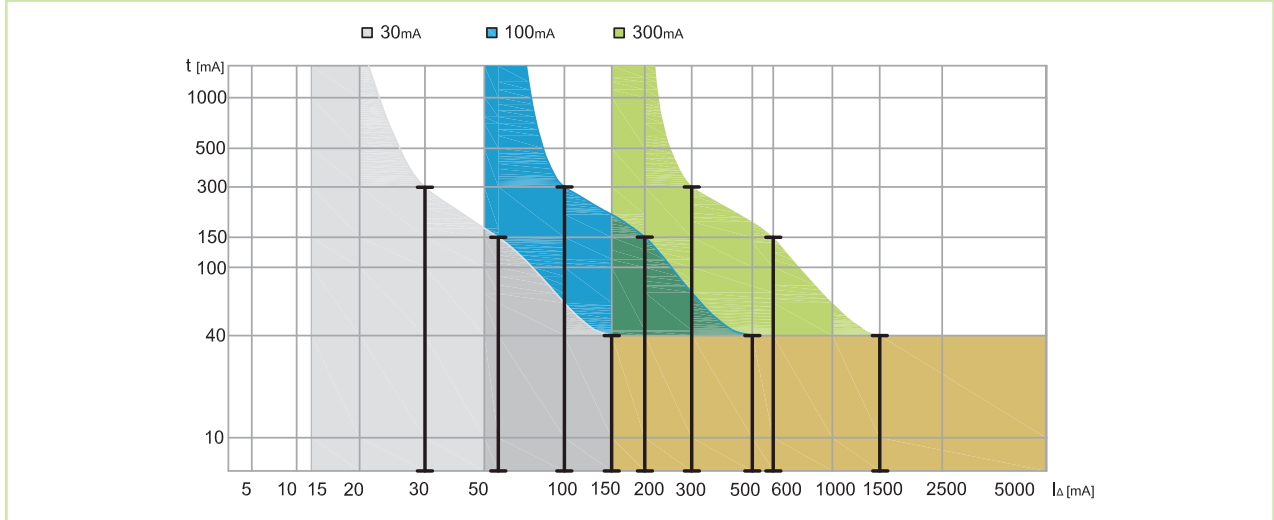
Wiring diagrams



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Residual Current Circuit Breakers type B, 10 kA

Tripping characteristics



Power loss

I_n	I_{Δ}	2P	4P
25 A	30 mA	6.6 W	8.6 W
	100 mA	4.3 W	8.6 W
	300 mA	4.3 W	8.6 W
40 A	30 mA	6.9 W	13.7 W
	100 mA	10.5 W	13.7 W
	300 mA	10.5 W	13.7 W
63 A	30 mA	16.5 W	21.6 W
	100 mA	10.9 W	21.6 W
	300 mA	10.9 W	21.6 W