Технически характеристики

RCCBs Ex9L-N, 6 kA

- **Residual Current Circuit Breakers according to EN 61008-1**
- **Cond. rated short circuit strength I_{nc} 6 kA**
- **2 and 4-pole versions**
- **Rated residual current 10, 30, 100, 300 and 500 mA**
- **Rated current up to 63 A**
- **Rated operational voltage 230/400 V AC**
- **AC, A, S and G type**
- **Indication of electrical tripping**
- **Suitable for applications from -25 to +40 °C**

Ex9L-N residual current circuit breakers are suitable mainly for domestic applications. They are based on permanent magnet principle. It brings the advantage of Voltage independent function. Adequate voltage is only necessary when testing the RCCB with the T test button. Magnetic RCCBs should 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.

6 kA variant of the Ex9L-N residual current circuit breaker is intended mainly for low demanding application like basic protection in household installations.

Type Key

Ex9	L	-N	2P	63 A	A	30mA	S
Product family	Product	Conditional short circuit strength	Poles	Rated current	Sensitivity to type of current	Rated residual current	Time delay (insensitivity)
Ex9	L: RCCB	-N: 6kA	2P 4P	16 A 25 A 40 A 63 A	_: AC A: A	10 mA 30 mA 100 mA 300 mA 500 mA	_: 0 ms G: 10-300 ms S: 130-500 ms

RCCBs Ex9L-N, 6 kA

AC type, 2-pole

- AC type of residual current circuit breaker sensitive on residual AC current
- Without time delay
- Surge current-proof 250 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
- Selective with upstream installed S or S+A type RCCB

Rated current	Rated residual current	Poles	Article No.	Type	Packing
16 A	10 mA	2	108312	Ex9L-N 2P 16A 10mA	1/81
25 A	10 mA	2	108313	Ex9L-N 2P 25A 10mA	1/81
16 A	30 mA	2	108317	Ex9L-N 2P 16A 30mA	1/81
25 A	30 mA	2	108314	Ex9L-N 2P 25A 30mA	1/81
40 A	30 mA	2	108315	Ex9L-N 2P 40A 30mA	1/81
63 A	30 mA	2	108316	Ex9L-N 2P 63A 30mA	1/81
16 A	100 mA	2	108321	Ex9L-N 2P 16A 100mA	1/81
25 A	100 mA	2	108318	Ex9L-N 2P 25A 100mA	1/81
40 A	100 mA	2	108319	Ex9L-N 2P 40A 100mA	1/81
63 A	100 mA	2	108320	Ex9L-N 2P 63A 100mA	1/81
16 A	300 mA	2	108325	Ex9L-N 2P 16A 300mA	1/81
25 A	300 mA	2	108322	Ex9L-N 2P 25A 300mA	1/81
40 A	300 mA	2	108323	Ex9L-N 2P 40A 300mA	1/81
63 A	300 mA	2	108324	Ex9L-N 2P 63A 300mA	1/81
16 A	500 mA	2	108329	Ex9L-N 2P 16A 500mA	1/81
25 A	500 mA	2	108326	Ex9L-N 2P 25A 500mA	1/81
40 A	500 mA	2	108327	Ex9L-N 2P 40A 500mA	1/81
63 A	500 mA	2	108328	Ex9L-N 2P 63A 500mA	1/81

AC type, 4-pole

Rated current	Rated residual current	Poles	Article No.	Type	Packing
16 A	30 mA	4	108330	Ex9L-N 4P 16A 30mA	1/45
25 A	30 mA	4	108331	Ex9L-N 4P 25A 30mA	1/45
40 A	30 mA	4	108332	Ex9L-N 4P 40A 30mA	1/45
63 A	30 mA	4	108333	Ex9L-N 4P 63A 30mA	1/45
16 A	100 mA	4	108334	Ex9L-N 4P 16A 100mA	1/45
25 A	100 mA	4	108335	Ex9L-N 4P 25A 100mA	1/45
40 A	100 mA	4	108336	Ex9L-N 4P 40A 100mA	1/45
63 A	100 mA	4	108337	Ex9L-N 4P 63A 100mA	1/45
16 A	300 mA	4	108338	Ex9L-N 4P 16A 300mA	1/45
25 A	300 mA	4	108339	Ex9L-N 4P 25A 300mA	1/45
40 A	300 mA	4	108340	Ex9L-N 4P 40A 300mA	1/45
63 A	300 mA	4	108341	Ex9L-N 4P 63A 300mA	1/45
16 A	500 mA	4	108342	Ex9L-N 4P 16A 500mA	1/45
25 A	500 mA	4	108343	Ex9L-N 4P 25A 500mA	1/45
40 A	500 mA	4	108344	Ex9L-N 4P 40A 500mA	1/45
63 A	500 mA	4	108345	Ex9L-N 4P 63A 500mA	1/45

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Residual Current Circuit Breakers, 6 kA

General parameters

Permanent magnet principle - Voltage independent tripping function
Suitable for household as well as industrial applications
AC, A, S and G type
Recommend is to test it every 6 months in fair environment and every month in heavy condition
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)
Indication of electrical tripping

Electrical parameters

Tested according to	EN 61008
Rated op. voltage U_e	240/415 V AC
Min. voltage for RCD function	voltage independent
Voltage range of the test button T	150 — 254 V AC (2-pole), 150 — 440 V AC (4-pole)
Rated frequency f	50/60 Hz
Conditional short circuit strength I_{nc}	6 kA
Rated current I_n	16, 25, 40, 63 A
Rated residual current $I_{\Delta n}$	10, 30, 100, 300, 500 mA
Sensitivity to residual current	AC type - AC residual current A type - residual AC and pulsating DC current
Time characteristic	AC, A - undelayed type G - delay (insensitivity) 10 - 300 ms S - delay (insensitivity) 130 - 500 ms
Rated impulse withstand voltage U_{imp}	6 kV
Rated insulation voltage U_i	500 V
Surge current proof	AC, A (undelayed type) - 250 A G, S (with delay) - 3000 A
Mechanical service life	2 000 operation cycles
Electrical service life	2 000 operation cycles
Back-up fuse for overload	
I_n = 16 A	max. 25 A gG
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 = 16 A	max. 63 A gG
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 = 16 A	500 A
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

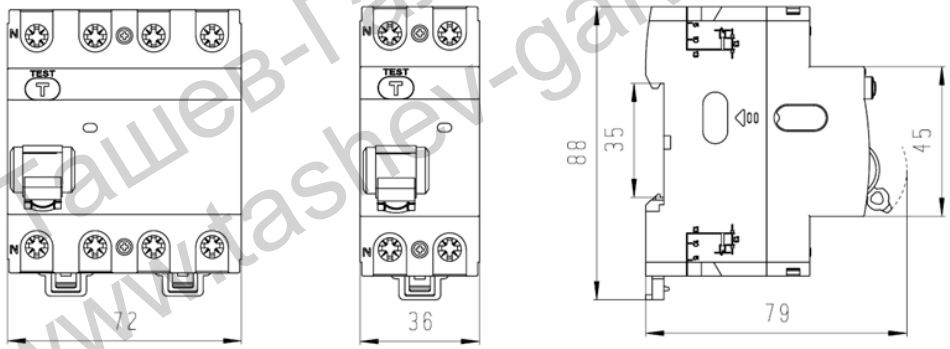
Technical Data Ex9L-N

Residual Current Circuit Breakers, 6 kA

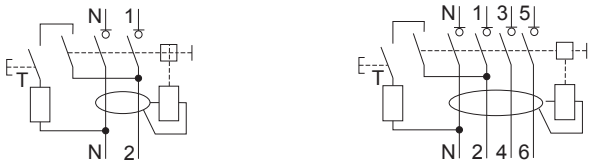
Mechanical parameters

Device width	36 mm (2-pole), 72 mm (4-pole)
Device height	85 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	1.5 — 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	0.22 kg (2-pole), 0.4 kg (4-pole)

Dimensions



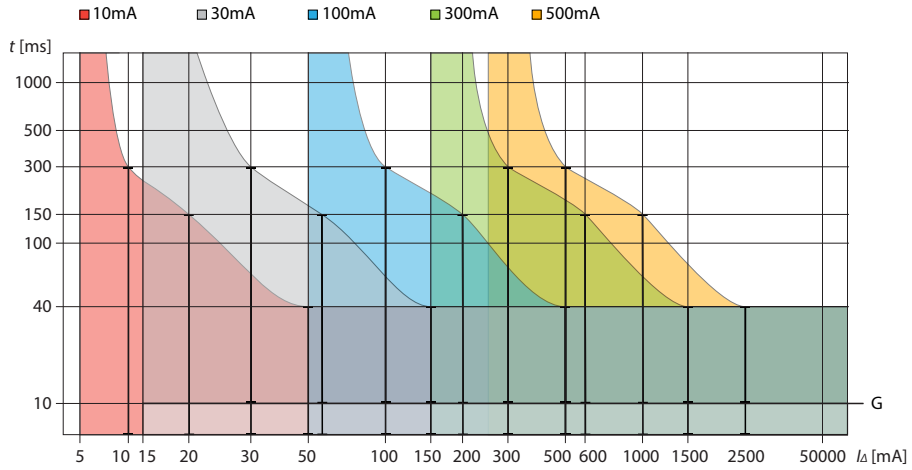
Wiring diagrams

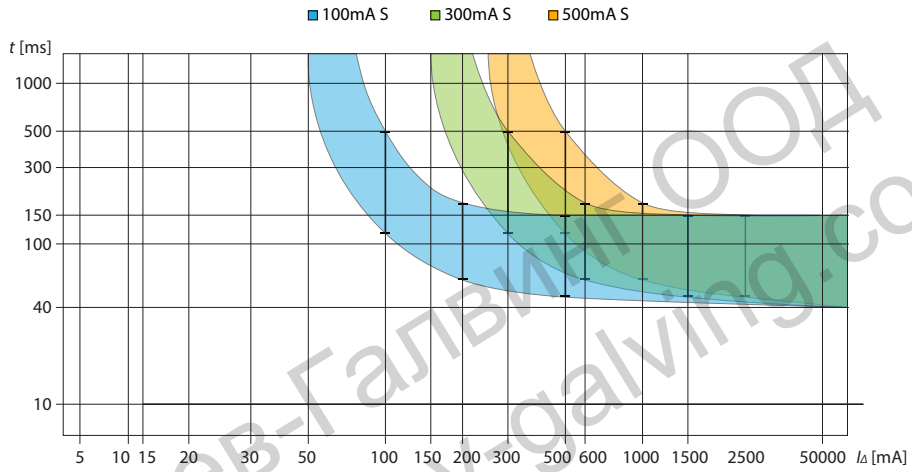


2P 4P

Технически характеристики

Tripping characteristics





Power loss

I_n	I_Δ	2P	4P
16 A	10 mA	1.8 W	3.8 W
	30 mA	1.8 W	3.8 W
	100 mA	1.8 W	3.8 W
	300 mA	1.8 W	3.8 W
	500 mA	1.8 W	3.8 W
25 A	10 mA	3.4 W	7.2 W
	30 mA	3.4 W	7.2 W
	100 mA	3.4 W	7.2 W
	300 mA	3.4 W	7.2 W
	500 mA	3.4 W	7.2 W
40 A	30 mA	7.2 W	15.3 W
	100 mA	7.2 W	15.3 W
	300 mA	7.2 W	15.3 W
	500 mA	7.2 W	15.3 W
63 A	30 mA	15 W	24 W
	100 mA	15 W	24 W
	300 mA	15 W	24 W
	500 mA	15 W	24 W