

Residual Current Circuit Breaker with Overload Protection N8LBE,10kA

Residual Current Circuit Breaker with Overload Protection according to IEC/EN 61009-1

Electronic type

Rated short circuit breaking capacity 10kA

1+N-pole version

N-pole on the right

Rated residual current 10, 30, 100, 300mA

Rated current up to 63A

2-module width

AC and A types

N8LBE residual current circuit breaker are based on combination of residual current device on the amplified signal of electronic components and circuit breaker with thermal overload release and magnetic short circuit current release.

They are common in domestic, commercial and industrial application.

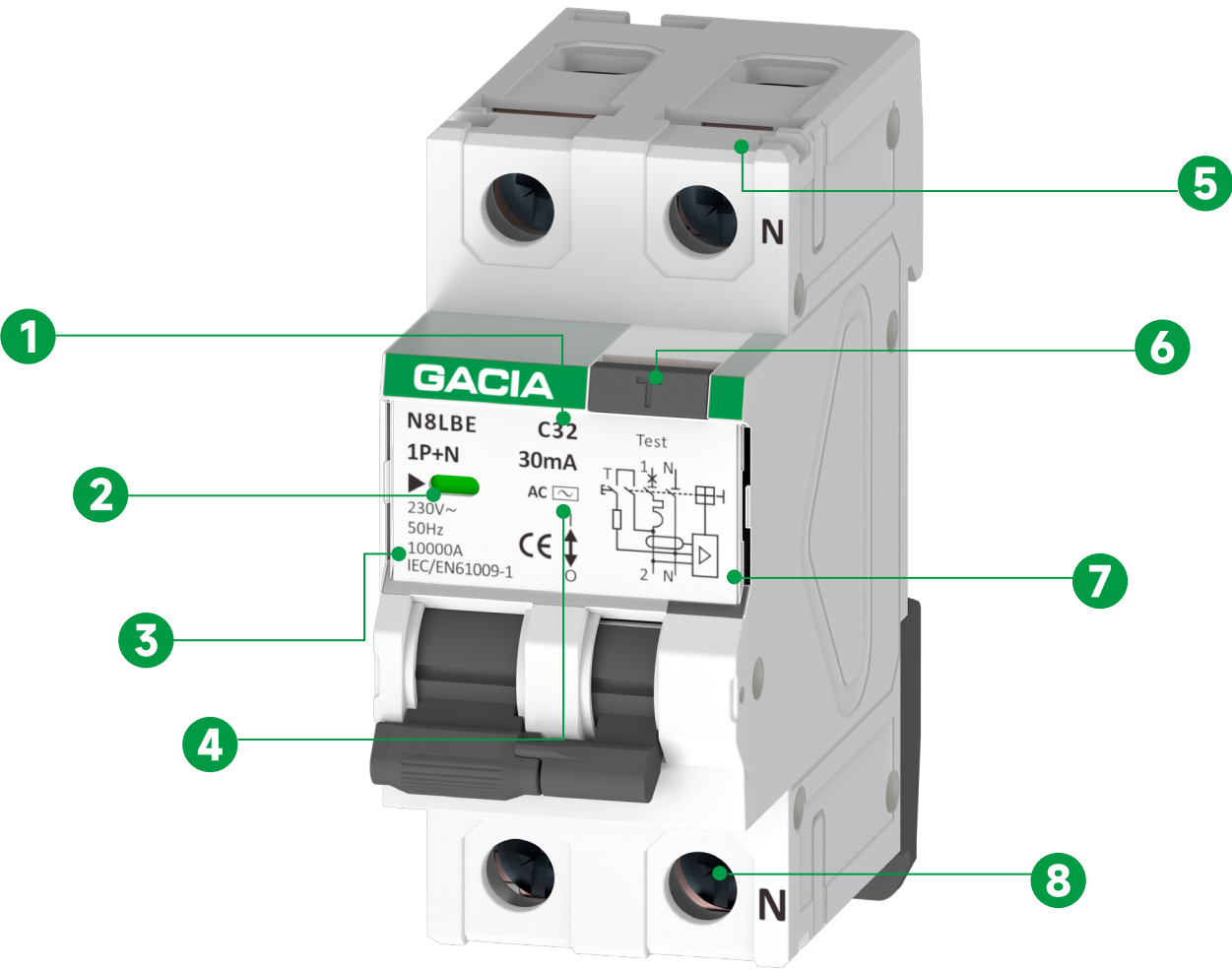
Type Key

N	8	LB	E	16A	30mA
Product series	Design code	Product category	Structure code	Rated current	Rated residual current
N	8	RCBO-63	Electronic	6-63A	10-300mA

Certification Marks



Product Tips Technical Data



- 1

Rated current up to 63A
- 2

Contacts position indication window
- 3

Rated short circuit breaking capacity 10000A
- 4

Sensitivity to residual current A
- 5

Busbar interface
- 6

Test button
- 7

Electronic circuit diagram with overload protection
- 8

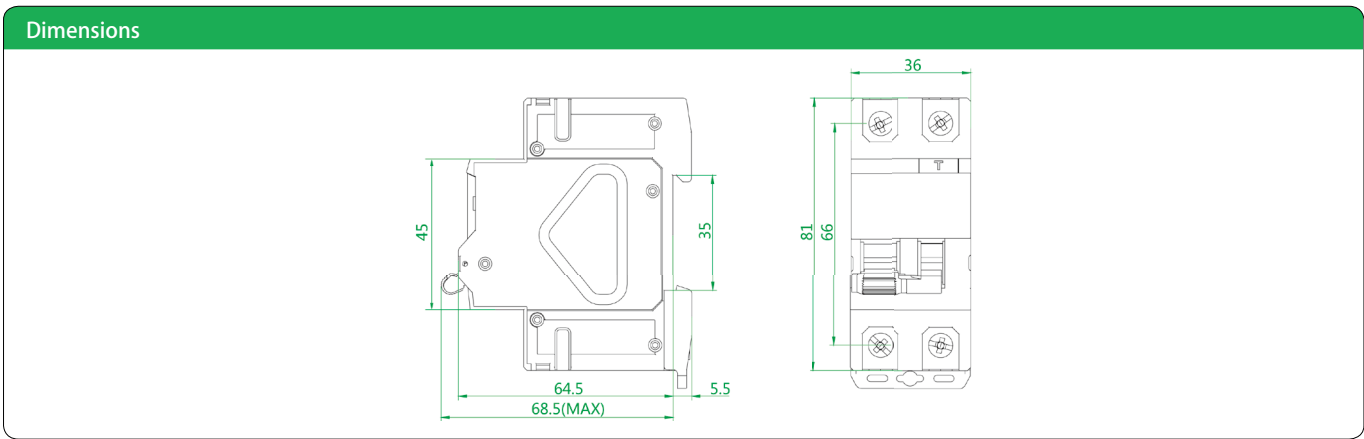
Neutral line interface

Residual Current Circuit Breaker
with Overload Protection
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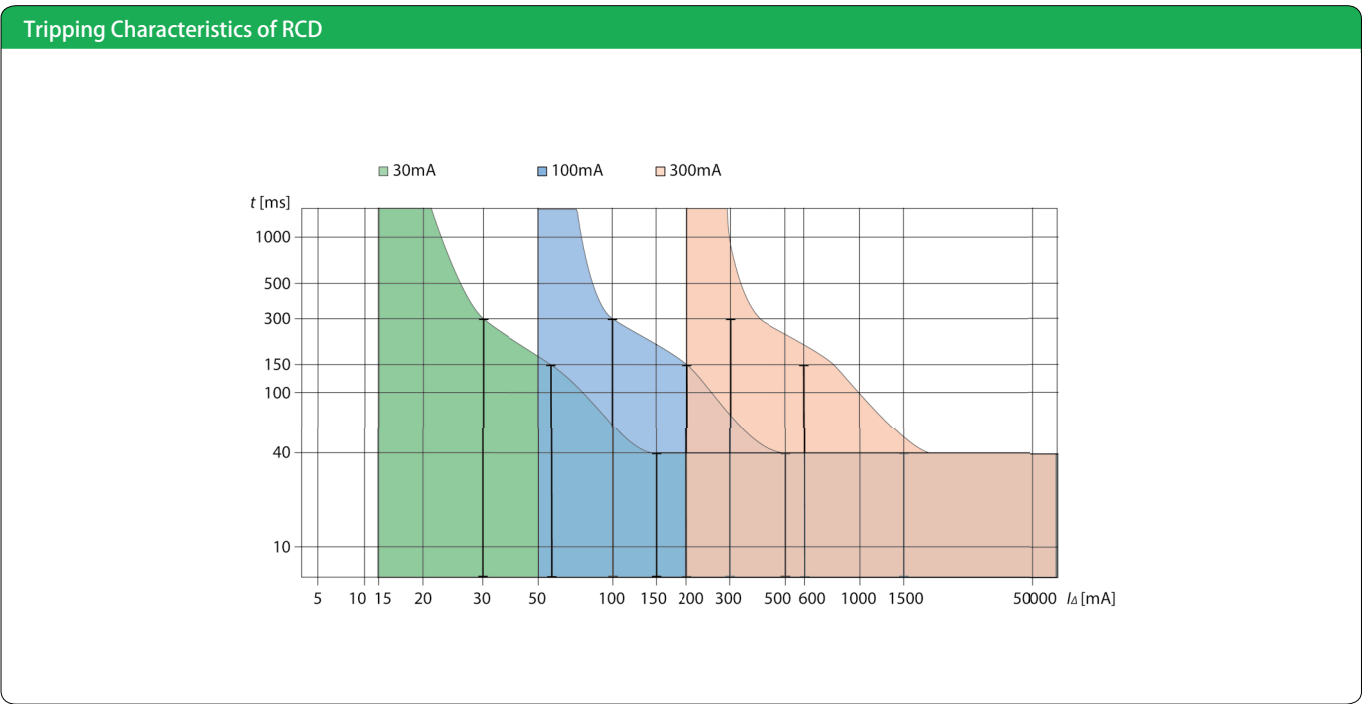
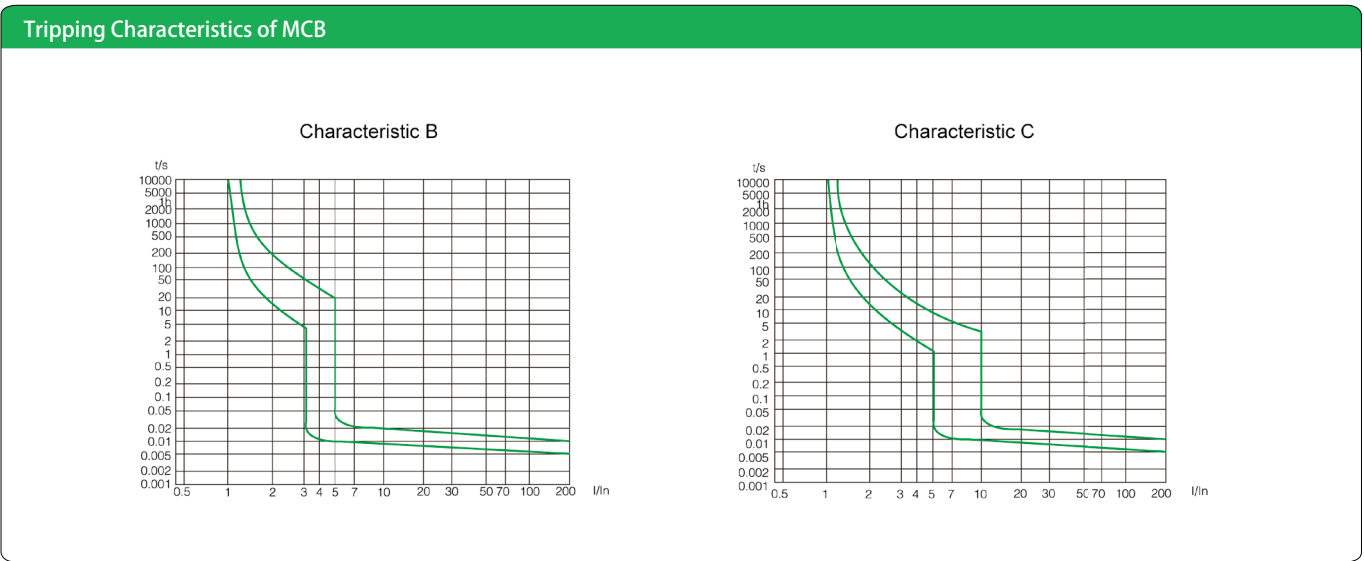
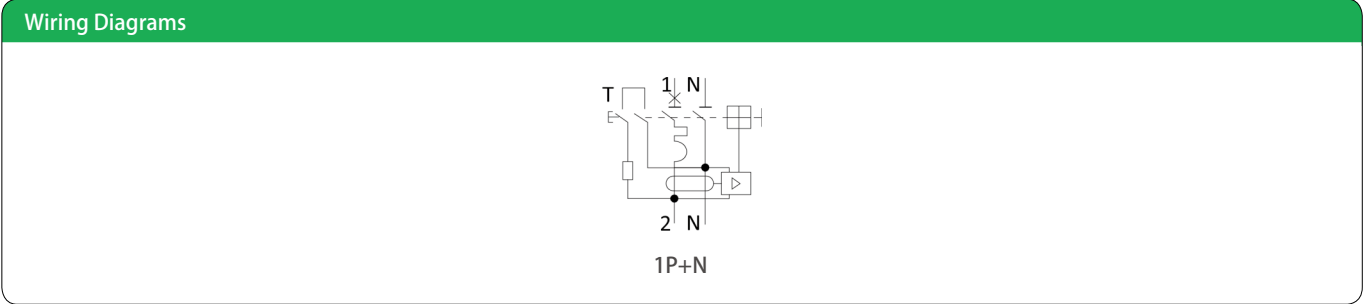
Technical Data

Electrical Features	
International standard	IEC/EN 61009-1
Poles	1P+N
Tripping characteristics of MCB	B, C
Rated current	6-63A
Rated residual current $I_{\Delta n}$	10, 30, 100, 300mA
Residual current protection type	Electronic
Rated breaking capacity I_{cn}	10kA
Rated operational voltage U_e	230/400V AC
Voltage range of the test button T	195.5 - 253V AC
Sensitivity to residual current	AC type- AC residual current A type- residual AC and pulsating DC current
Rated frequency	50/60Hz
Rated insulated voltage U_i	400V AC
Rated impulse withstand voltage U_{imp}	4kV
Dielectric test voltage	2.5kV
Mechanical service life	10000 operation cycles
Electrical service life	4000 operation cycles
Time characteristic of RCD	Undelayed type

Installation Parameters	
Degree of protection (IP)	IP20, IP40 (when fitted)
Operating ambient temperature	-25°C ~+70°C
Terminal connection type	Cable/Busbar
Connectable conductor cross section	1-25mm²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2-3.0N.m
Pollution degree	2
Reference temperature for setting of thermal element	30°C
Altitude	≤ 2000m
Relative humidity	≤ 95%
Resistance to humidity and heat	Class 2
Installation class	III



Technical Data



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Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	In (T) [A]							
	6 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A
-20	8	13.5	17	20	24.5	29.8	39.5	50.5
-15	7.8	13.3	16.8	19.8	24.3	29.7	39.3	50.4
-10	7.6	13	16.5	19.5	24	29.5	39	50.2
-5	7.3	12.7	16.1	19.2	23.8	29.3	38.8	50
0	7.2	12.5	15.8	19.1	23.7	29.2	38.6	48.8
5	7	12.3	15.5	18.8	23.5	29	38.4	48.6
10	6.8	12.1	15.2	18.6	23.3	28.8	38.2	48.4
15	6.6	12	14.9	18.5	23.1	28.6	38	48.1
20	6.4	11.8	14.7	18.3	22.8	28.4	37.8	47.8
25	6.2	11.5	14.1	18	22.6	28.2	37.5	47
30	6	10	13	16	20	25	32	40
35	6	9.9	12.8	15.7	19.7	24.6	31.5	39.2
40	5.9	9.8	12.5	15.4	19.3	24.3	31.1	38.8
45	5.83	9.8	12.2	15.1	18.8	24	30.8	38.3
50	5.72	9.6	11.7	14.9	18.5	23.8	30.1	38
55	5.65	9.5	11.5	14.7	18.2	23.5	29.5	36.5
60	5.5	9	11.2	14.5	17.8	23	28.5	35
65	5.4	8.6	11	14	17.5	22	27.5	34
70	5.2	8	10.8	13.8	17.3	21.5	27	32.5

Power Loss

In [A]	6 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A
P[W]	1.8	2.5	3.5	4	5	5.8	6.5	7.8