



P Series Installation Devices

Low voltage



GACIA ELECTRICAL APPLIANCE CO., LTD.

GACIA

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GACIA



Company Profile

Gacia Electrical Appliance Co., Ltd is an export-oriented high-tech enterprise specializing in R&D, production and sales of various low-voltage circuit breakers. The company was established in August 2002 and is headquartered in Wenzhou. After 20 years of development, it has formed a three-in-one strategic layout of Zhejiang, Jiangxi, and Shanghai. The plant area is 160,000 square meters, the company has 1,200 employees and has an annual output of 100,000,000 poles of MCB, 4,000,000 pcs of RCCB/RCBO, and 300,000 pcs of MCCB.

Gacia adhere to business principle referring to "customer-centric, Altruism and Win-win". Besides, Gacia devoted to utilize innovation to drive production improvement, take advantage of lean production to upgrade products quality and committed to become the pacemaker of the global circuit breaker industrial. The products are sold best in more than 60

countries and regions in all of the world. Long-term cooperative relations have been established with three enterprises of the world's top 500. The annual R & D investment on new products is not less than 5% of the annual sales, and has won more than 130 national patents, including 12 invention patents, and participated in the formulation of a number of industry standards that applied for the registration of international trademarks in 123 countries and regions. Overseas independent brand agents were set up in 38 countries and more than 80 international product certifications were obtained. The "GACIA" trademark was recognized as the "recommended brand of China's export products by the Ministry of Commerce".

GACIA

Smart Factory

- Make manufacturing more transparent
- Make delivery faster
- Make decisions smarter



Residual Current Circuit Breaker with Overload Protection PL8HE,6kA

- Residual Current Circuit Breaker with Overload Protection according to IEC/EN 61009-1
- Electronic type
- Rated short circuit breaking capacity 6kA
- 1+N pole version
- N-pole on the right
- Rated residual current 10, 30, 100, 300mA
- Rated current up to 40A
- 2-module width
- AC and A types



PL8HE 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.

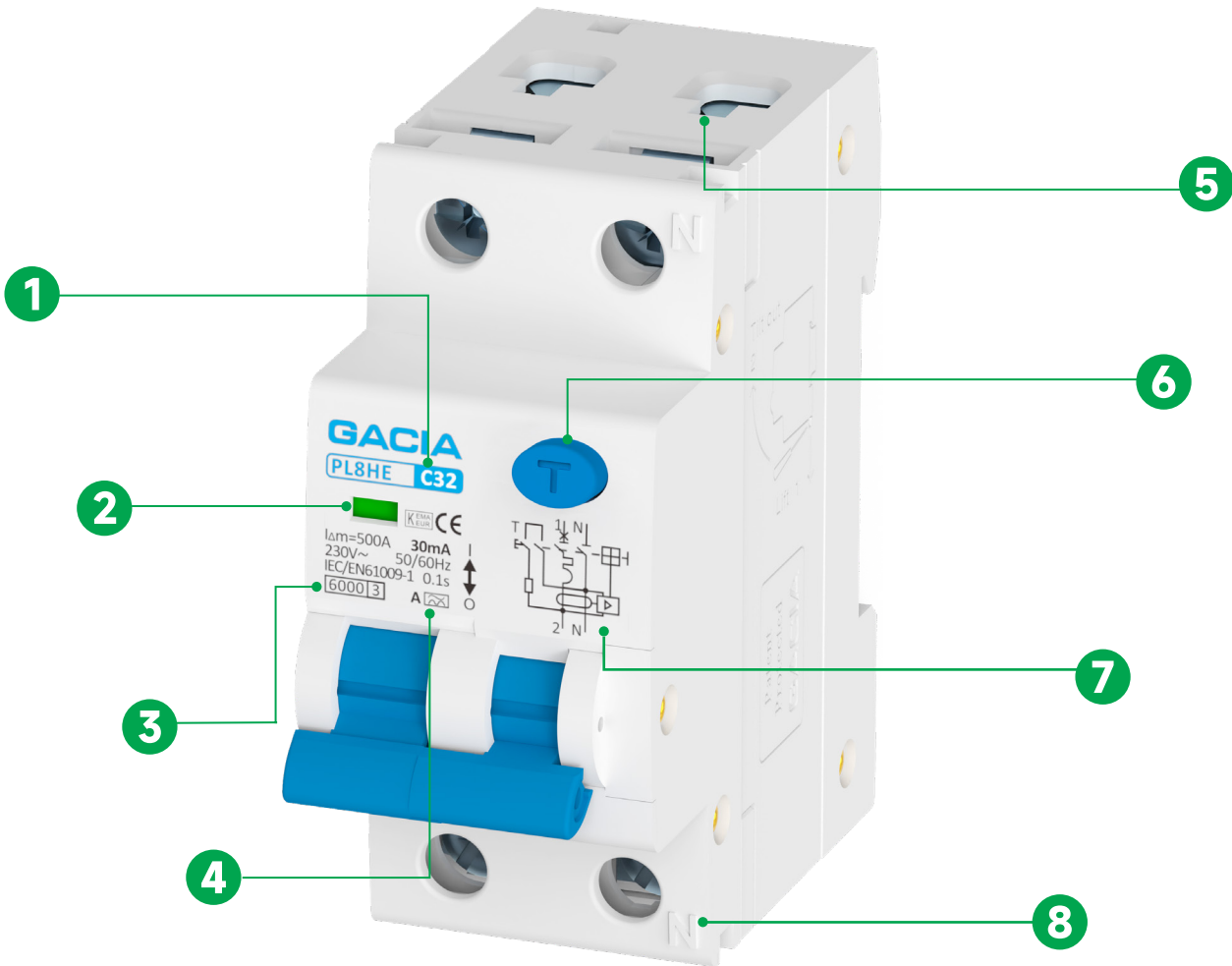
Type Key

P	L	8	H	E	16A	30mA
Product series	Product category	Design code	Breaking capacity	Structure code	Rated current	Rated residual current
Professional	RCBO	8	6kA	Electronic	6-40A	10-300mA

Certification Marks



Product Tips



- 1

Rated current up to 40A
- 2

Contacts position indication window
- 3

Rated short circuit breaking capacity 6000A
- 4

Sensitivity to residual current A
- 5

Busbar interface
- 6

Test button
- 7

Electronic circuit diagram with overload protection
- 8

Neutral line interface

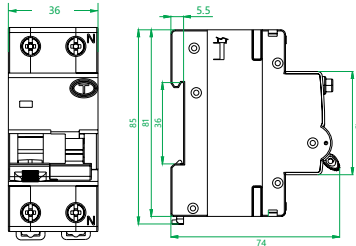
Residual Current Circuit Breaker
with Overload Protection
PL8HE,6kA

Technical Data

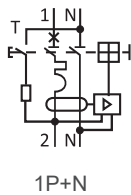
Electrical Features	
International standard	IEC/EN 61009-1
Poles	1P+N
Tripping characteristics of MCB	B, C
Rated current	6-63A
Rated residual current $I_{\Delta n}$	10, 30, 100, 300mA
Residual current protection type	Electronic
Rated breaking capacity I_{cn}	6kA
Rated operational voltage U_e	230V AC
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

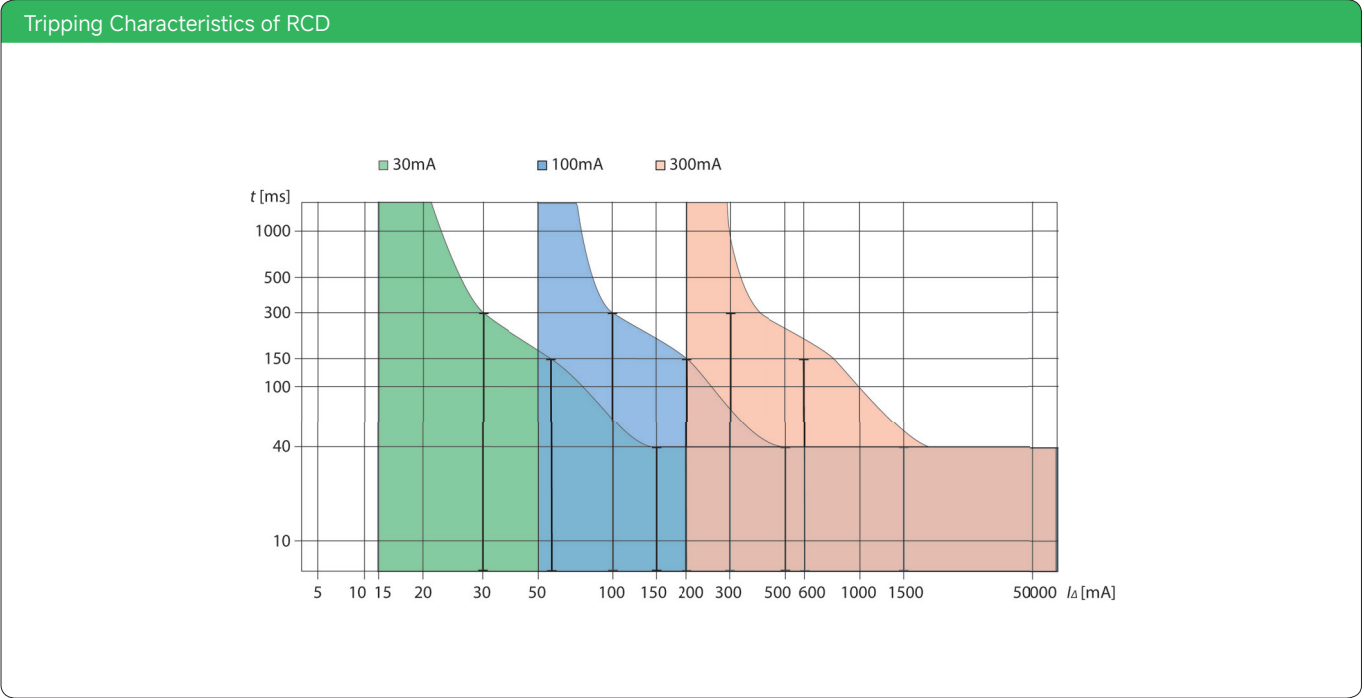
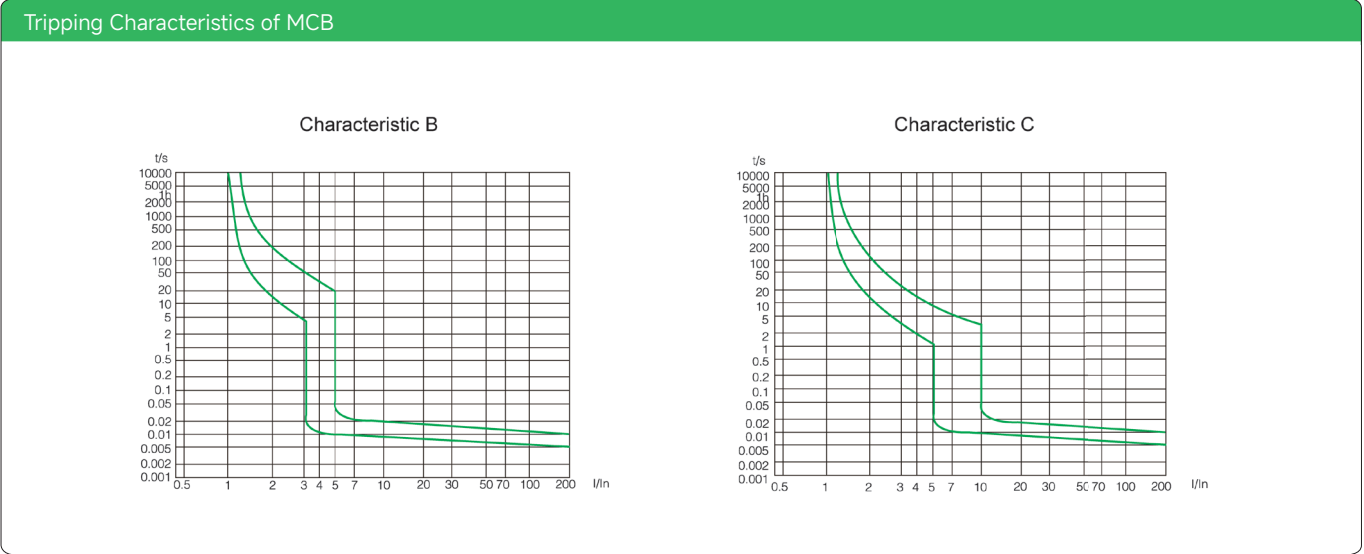
Installation Parameters	
Degree of protection (IP)	IP20, IP40 (when fitted)
Operating ambient temperature	-25°C ~+70°C
Terminal connection type	Cable/Busbar
Connectable conductor cross section	1-25mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2.5N.m
Pollution degree	2
Reference 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

Dimensions	
	

Technical Data

Wiring Diagrams	
	



Residual Current Circuit Breaker with Overload Protection PL8HE,6kA

Technical Data

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