



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".



Smart Factory

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



B type Residual Current Circuit Breaker

PR8HM,10kA

Residual Current Circuit Breaker according to IEC/EN 61008-1 and IEC/EN 62423

Cond. rated short circuit strength I_{nc} 10kA

2 and 4 pole versions

Rated residual current 30, 100 300mA

Rated current up to 63A

Rated operational voltage 230/400V AC

Indication of electrical tripping



Residual current circuit breakers B type PR8HM are suitable for domestic as well as industrial applications, where are used frequency inveters, 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.

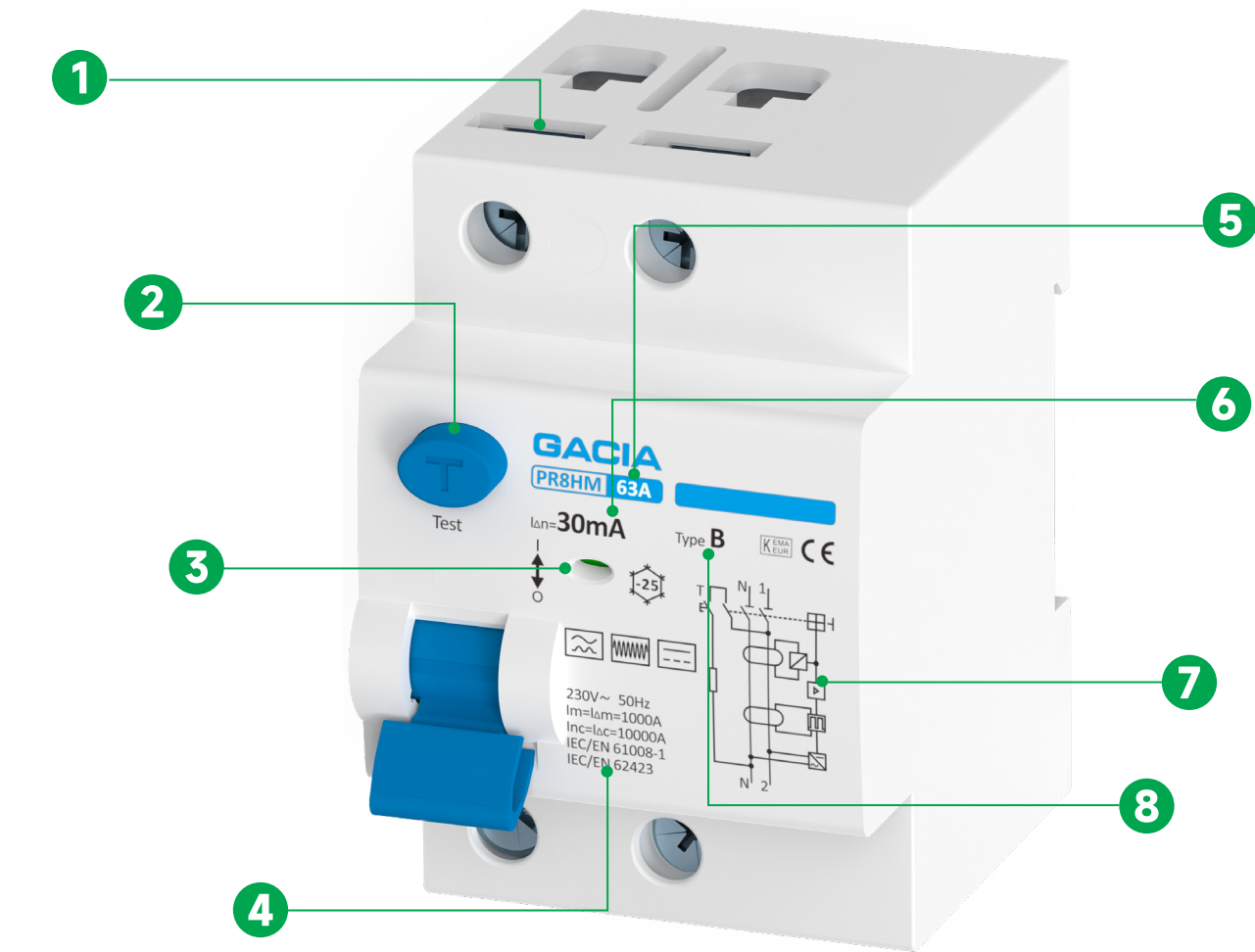
Type Key

P	R	8	H	M	2P	25A	30mA
Product series	Product category	Design code	Conditional short circuit strength	Structure code	Poles	Rated current	Rated residual current
Professional	RCCB	8	10kA	B type	2P, 4P	25-63A	30-300mA

Certification Marks



Product Tips



- 1

Busbar interface
- 2

Test button
- 3

Fault Indication Window
- 4

International standards
- 5

Rated current up to 63A
- 6

Variants from 30 to 300mA $I_{\Delta n}$ available
- 7

Circuit diagram
- 8

Sensitivity to residual current B type

B type Residual Current Circuit Breaker

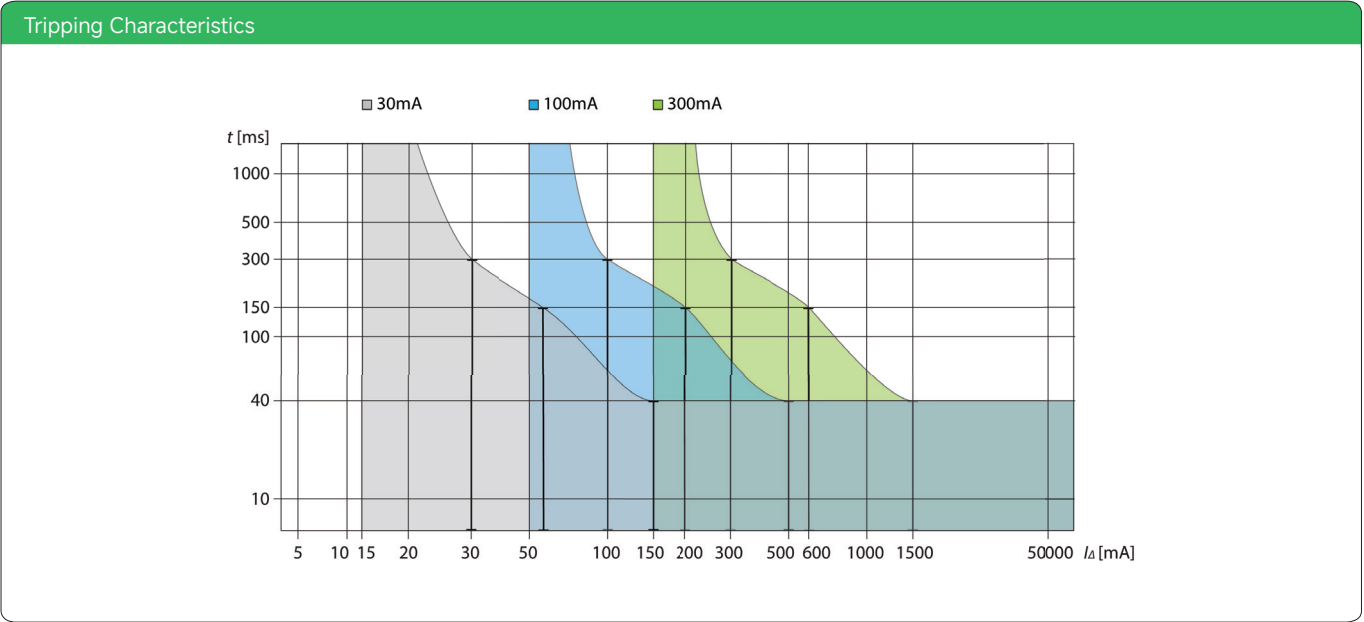
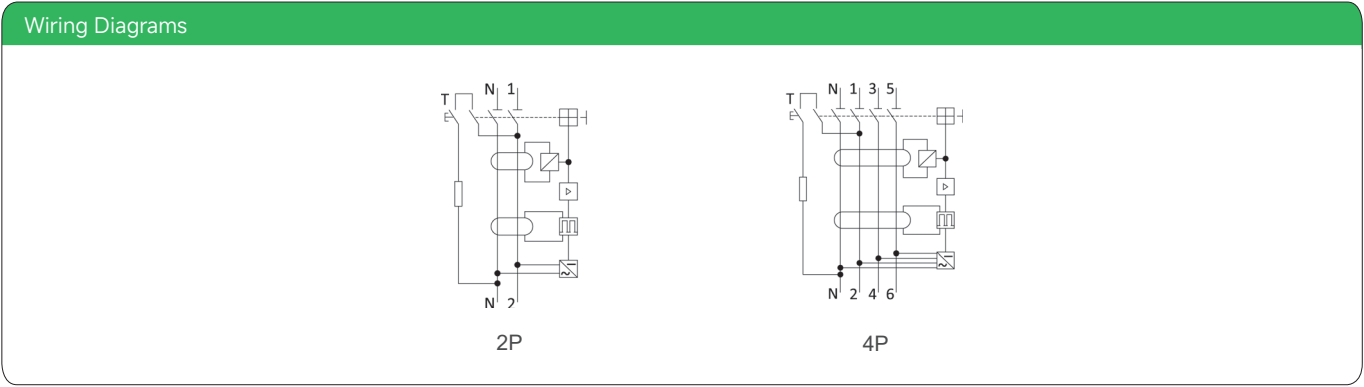
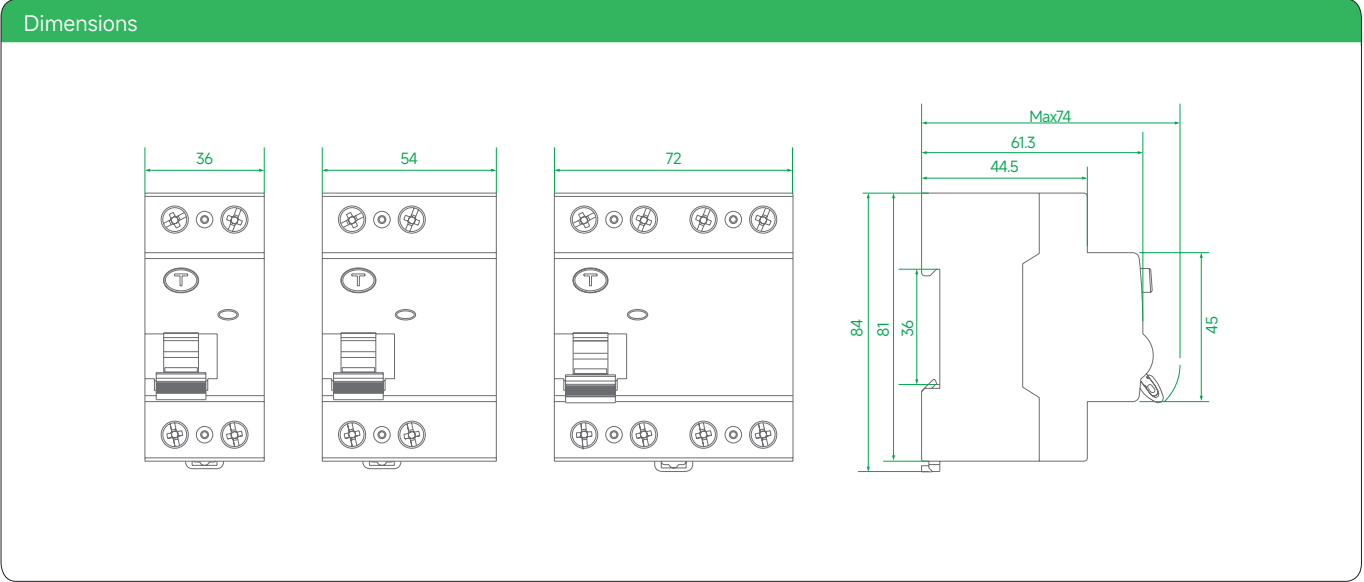
PR8HM,10kA

Technical Data

Electrical Features	
International standard	IEC/EN 61008-1 and IEC/EN 62423
Poles	2P(1P+N), 4P(3P+N)
Rated current	25, 40, 63A
Rated residual current $I_{\Delta n}$	30, 100, 300mA
Residual current protection type	Electromagnetic (A type magentic and B type electronic)
Conditional short circuit strength I_{nc}	10kA
Rated operational voltage U_e	230/400V AC
Voltage range of the test button T	195.5 - 253V AC (2P) / 195.5 - 440V AC (4P)
Sensitivity to residual current	B type - residual AC, pulsating and smooth DC current, high frequency (1 kHz)
Rated frequency	50/60Hz
Rated insulated voltage U_i	500V AC
Rated impulse withstand voltage U_{imp}	4kV
Dielectric test voltage	2.5kV
Mechanical service life	10000 operation cycles
Electrical service life	2000 operation cycles
Back-up fuse for overload	
$I_n=25A$	max, 25AgG
$I_n=40A$	max, 32AgG
$I_n=63A$	max, 50AgG
Back-up fuse for short circuit	
$I_n=25A$	max, 63AgG
$I_n=40A$	max, 63AgG
$I_n=63A$	max, 63AgG
Rated residual making and breaking capacity $I_m / I_{\Delta m}$	
$I_n=25A$	1000A
$I_n=40A$	1000A
$I_n=63A$	1000A
Line voltage connection	Arbitrary above or below

Installation Parameters	
Degree of protection (IP)	IP20, IP40 (when fitted)
Operating ambient temperature	-25°C ~+40°C
Terminal connection type	Cable/Busbar
Connectable conductor cross section	1-35mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2.5N.m
Pollution degree	2
Altitude	≤ 2000m
Relative humidity	≤ 95%
Resistance to humidity and heat	Class 2
Installation class	III

Technical Data



B type Residual Current Circuit Breaker

PR8HM,10kA

Technical Data

Power Loss			
I _n	I _Δ	2P	4P
25A	30mA	6.6W	8.6W
	100mA	4.3W	8.6W
	300mA	4.3W	8.6W
40A	30mA	6.9W	13.7W
	100mA	10.5W	13.7W
	300mA	10.5W	13.7W
63A	30mA	16.5W	21.6W
	100mA	10.9W	21.6W
	300mA	10.9W	21.6W