



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



Residual Current Circuit Breaker

PR8NM,6kA



- Residual Current Circuit Breaker according to IEC/EN 61008-1
- Electromagnetic type
- Cond. rated short circuit strength I_{nc} 6kA
- 2 and 4 pole versions
- Rated residual current 10, 30, 100, and 300mA
- Rated current up to 63A
- Rated operational voltage 230/400V AC
- AC and A types



PR8NM residual current circuit breaker is a safety device that quickly breaks an electrical circuit to protect equipment, they are designed to disconnect the conducting wires ("trip") quickly enough to potentially prevent serious injury to humans, and to prevent damage to electrical devices.

They are common in domestic, commercial and industrial application.

Type Key

P	R	8	N	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	6kA	Electromagnetic	2P, 4P	25-63A	10-300mA

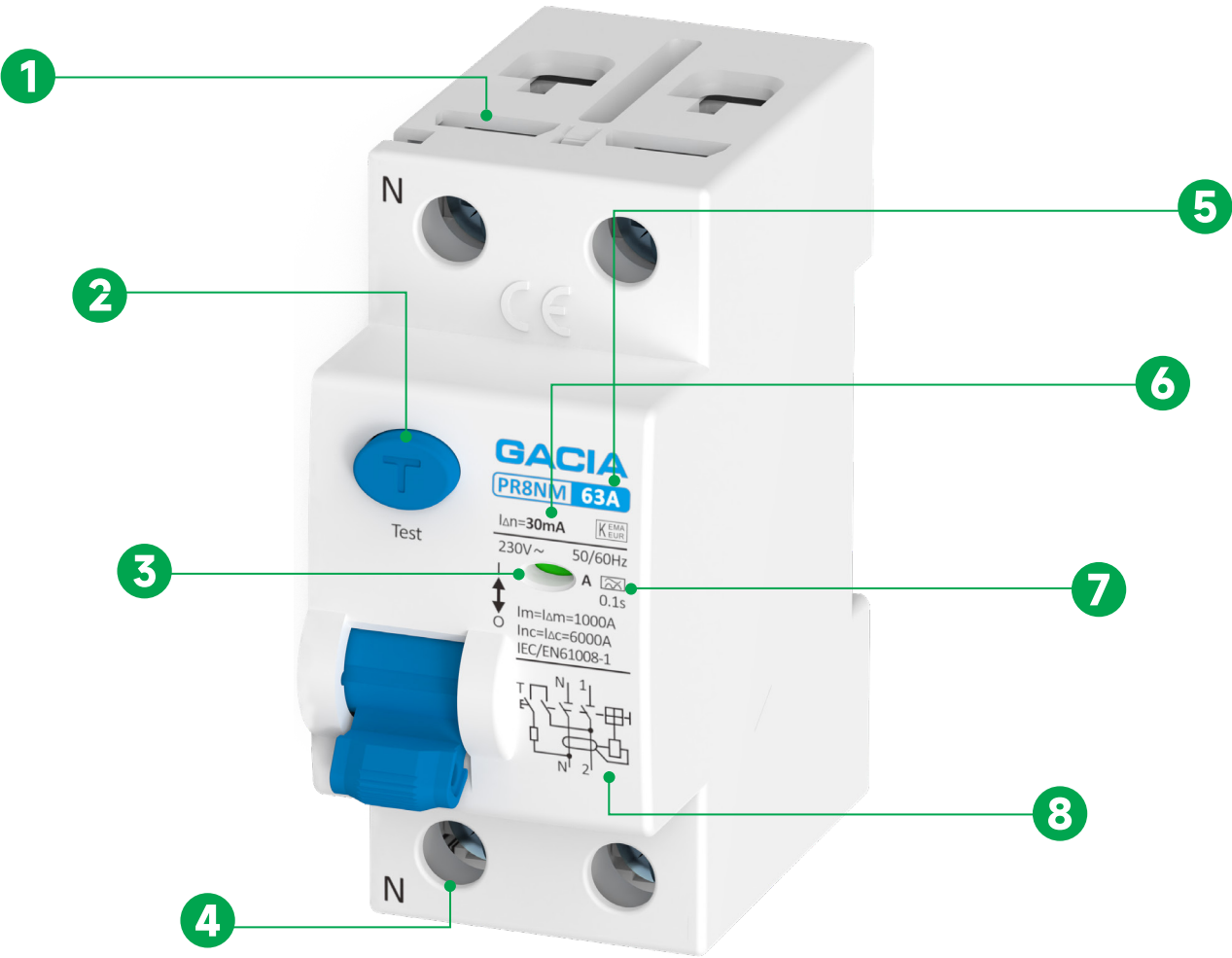
Certification Marks



Residual Current Circuit Breaker

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Product Tips



- 1 Busbar interface

2 Test button

3 Contacts position indication window

4 Neutral line interface
- 5 Rated current up to 63A

6 Variants from 10 to 300mA $I_{\Delta n}$ available

7 Sensitivity to residual current A

8 Electromagnetic circuit diagram

Technical Data

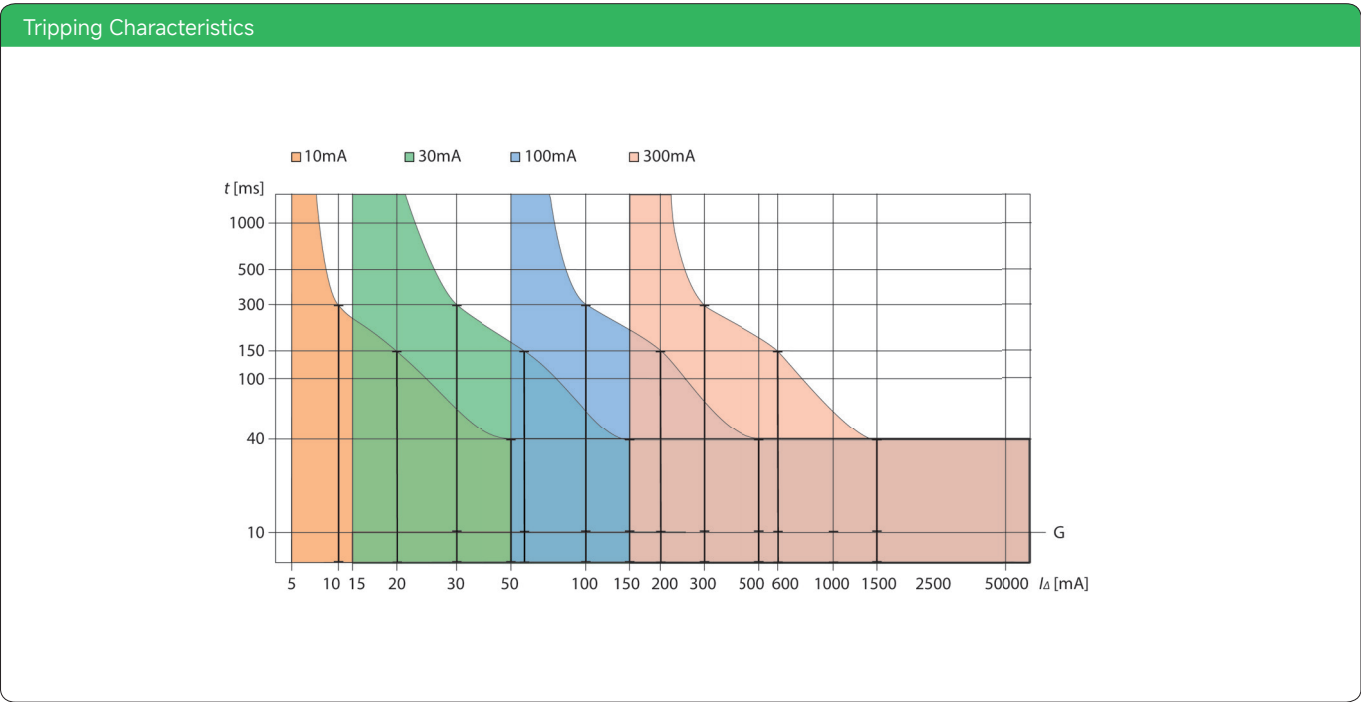
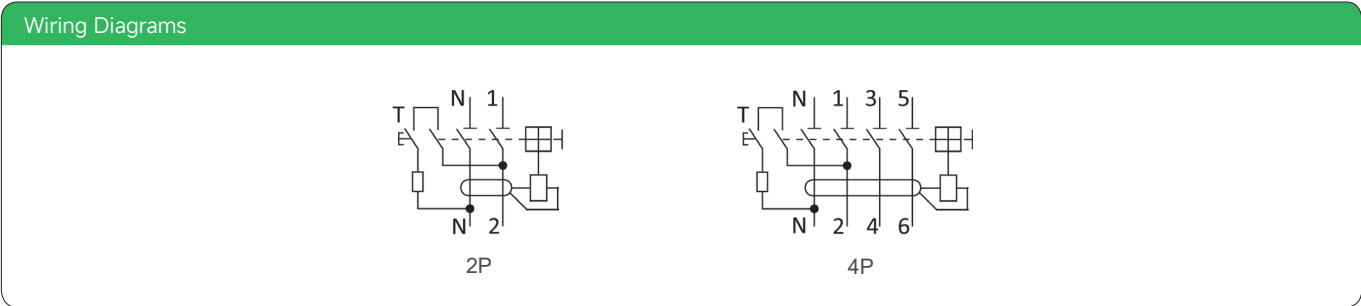
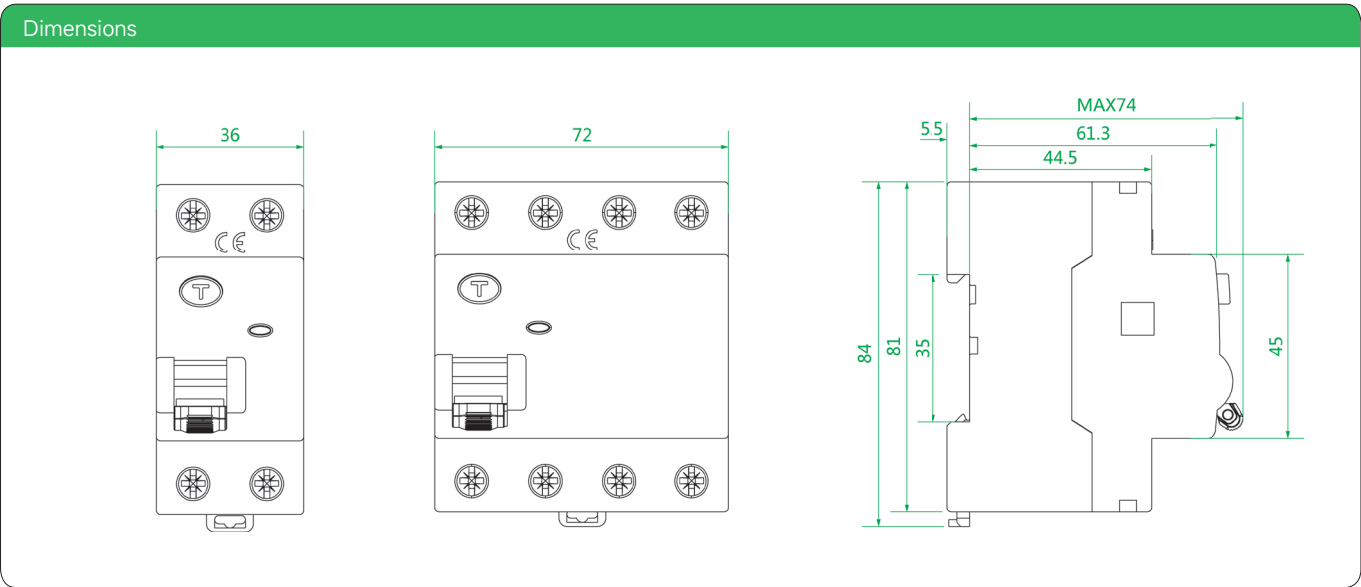
Electrical Features		
International standard		IEC/EN 61008-1
Poles		2P(1P+N), 4P(3P+N)
Rated current		25, 40, 63A
Rated residual current $I_{\Delta n}$		10, 30, 100, 300mA
Residual current protection type		Electromagnetic
Conditional short circuit strength I_{nc}		6kA
Rated operational voltage U_e		230/400V AC
Min.voltage for RCD function		Independent of voltage
Voltage range of the test button T		150 - 253V AC (2P) / 150 - 440V AC (4P)
Sensitivity to residual current		AC type - AC residual current SI type-residual AC and pulsating DC current Can withstand an 8/20 μ s surge of 3000 A A type - residual AC and pulsating DC current
Time characteristic		AC, A - Undelayed type
Rated frequency		50/60Hz
Rated insulated voltage U_i		500V AC
Rated impulse withstand voltage U_{imp}		6kV
Dielectric test voltage		2.5kV
Mechanical service life		10000 operation cycles
Electrical service life		4000 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	1-25mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2.5N.m
Pollution degree	2
Altitude	≤ 2000m
Relative humidity	≤ 95%

Residual Current Circuit Breaker

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Technical Data



Technical Data

Power Loss			
I_n	I_{Δ}	2P	4P
25A	10mA	3.4W	7.2W
	30mA	3.4W	7.2W
	100mA	3.4W	7.2W
	300mA	3.4W	7.2W
40A	30mA	7.2W	15.3W
	100mA	7.2W	15.3W
	300mA	7.2W	15.3W
63A	30mA	15W	24W
	100mA	15W	24W
	300mA	15W	24W