



P Series Installation Devices

Low voltage



GACIA ELECTRICAL APPLIANCE CO., LTD.

GACIA

GACIA ELECTRICAL APPLIANCE CO., LTD.

Add: No.1 Nanxijiang Road, Daqiao Industrial Zone, Yueqing, Wenzhou Zhejiang, China

Tel: 86-577-62982555 Fax: 86-577-62983555

E-mail: gacia@gacia.com.cn Http://www.gacia.com.cn

www.gacia.com.cn

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



Miniature Circuit Breaker

PB8N,6kA



- Miniature Circuit Breaker according to IEC/EN 60898-1
- Rated short circuit breaking capacity 6kA
- 1 up to 4 pole versions
- Tripping characteristics B, C, D
- Rated current up to 63A
- Rated operational voltage 230/400V AC
- Both fork and pin busbars connection



PB8N miniature circuit breaker is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by excess current from an overload or short circuit. Its basic function is to interrupt current flow after a fault is detected. They are common in domestic, commercial and industrial application.

It also can be used for non-frequent on-and-off switching operations under normal circumstances.

Type Key

P	B	8	N	1P	B	16
Product series	Product category	Design Code	Breaking capacity	Poles	Tripping curve	Rated current
Professional	MCB	8	6kA	1,1N,2,3,3N,4	B,C,D	1-63A

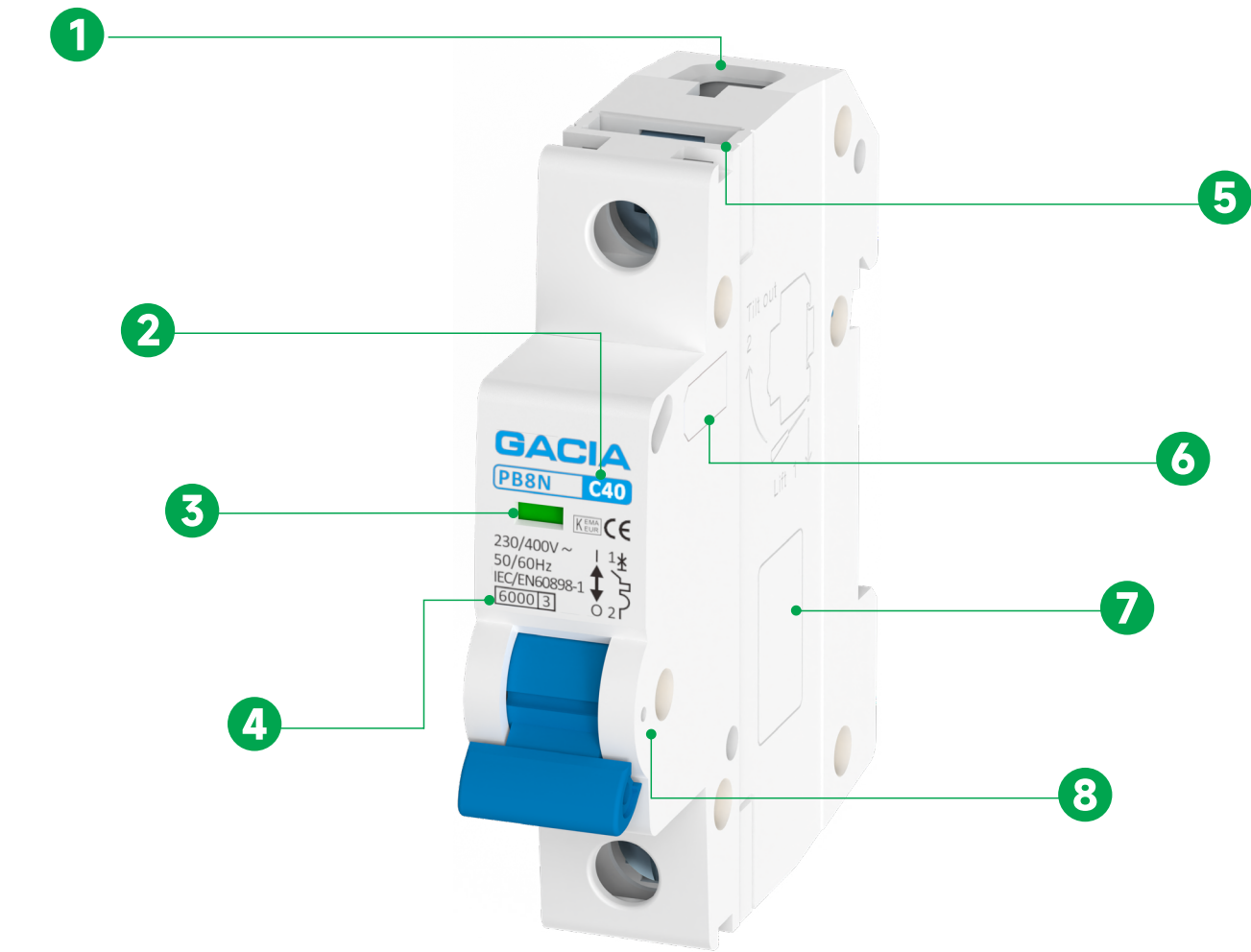
Certification Marks



Miniature Circuit Breaker

PB8N,6kA

Product Tips



- 1 Reversible line and load connection

2 Tripping characteristics B, C, D

3 Contacts position indication window

4 Rated short circuit breaking capacity 6000A
- 5 Busbar interface

6 Wide range of accessories

7 Modifiable modules for ODM clients

8 The position of handle lock

Technical Data

Electrical Features		
International standard		IEC/EN 60898-1
Poles		1P, 1P+N, 2P, 3P, 3P+N, 4P
Rated current		1-63A
Tripping characteristics		B, C, D
Rated breaking capacity	I_{cn}	6kA
Rated operational voltage	U_e	230/400V 240/415V AC
Minimum operational voltage	U_{min}	12V AC
Maximum operational voltage	U_{max}	440V AC
Rated frequency		50/60Hz
Rated insulated voltage	U_i	500V AC
Rated impulse withstand voltage	U_{imp}	6kV
Dielectric test voltage		2kV
Mechanical service life		10000 operation cycles
Electrical service life		4000 operation cycles
Line voltage connection		Arbitrary above or below

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%

Combination with Accessories	
Auxiliary contact	Yes
Alarm contact	Yes
Shunt release	Yes
Shunt release + Aux	Yes
Undervoltage release	Yes
Overvoltage release	Yes
Over & under voltage release	Yes

Miniature Circuit Breaker

PB8N,6kA

Technical Data

Dimensions

Wiring Diagrams

Tripping Characteristics

Technical Data

Dependence of Tripping Characteristics on Ambient Temperature															
T [°C]	In (T) [A]														
	1 A	2 A	3 A	4 A	6 A	8 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
-30	1.3	2.5	3.8	5.1	7.6	10.2	13.6	16.8	20.5	25.3	31.1	40.5	51.0	64.0	82.0
-25	1.2	2.4	3.7	4.9	7.4	9.9	13.4	16.5	20.0	25.0	30.5	39.8	50.0	63.0	80.7
-20	1.2	2.4	3.6	4.8	7.3	9.7	13.1	16.3	19.8	24.5	30.0	39.2	49.2	62.0	79.2
-15	1.2	2.4	3.5	4.8	7.2	9.5	12.8	15.9	19.4	24.0	29.5	38.5	48.4	60.8	77.8
-10	1.2	2.3	3.5	4.7	7.1	9.3	12.5	15.7	19.0	23.7	29.0	37.9	47.5	59.8	76.3
-5	1.2	2.3	3.4	4.7	7.0	9.2	12.3	15.4	18.7	23.2	28.5	37.2	46.7	58.6	74.7
0	1.1	2.2	3.4	4.5	6.8	9.0	12.0	15.0	18.4	22.8	28.0	36.5	45.8	57.4	73.2
5	1.1	2.2	3.3	4.4	6.6	8.9	11.7	14.7	18.0	22.4	27.5	35.8	45.0	56.3	71.6
10	1.1	2.1	3.3	4.3	6.5	8.7	11.4	14.3	17.6	21.9	27.0	35.0	44.0	55.0	70.0
15	1.1	2.1	3.2	4.3	6.4	8.5	11.0	14.0	17.2	21.5	26.5	34.3	43.0	53.8	68.3
20	1.0	2.1	3.2	4.2	6.3	8.3	10.7	13.7	16.8	21.0	26.0	33.6	42.0	52.6	66.6
25	1.0	2.0	3.0	4.1	6.2	8.2	10.4	13.4	16.4	20.5	25.5	32.8	41.0	51.3	64.8
30	1	2	3	4	6	8	10	13	16	20	25	32	40	50	63
35	0.99	2.00	3.00	3.9	5.9	7.9	9.9	12.8	16.0	20.0	25.0	32.0	39.0	49.0	62.0
40	0.97	1.90	2.90	3.9	5.8	7.8	9.7	12.5	15.0	19.0	24.0	31.0	39.0	48.0	61.0
45	0.95	1.90	2.80	3.8	5.7	7.7	9.5	12.2	15.0	19.0	24.0	30.0	38.0	47.0	60.0
50	0.93	1.90	2.80	3.7	5.6	7.6	9.3	12.0	15.0	19.0	23.0	30.0	37.0	46.0	58.0
55	0.91	1.80	2.80	3.6	5.5	7.5	9.0	11.7	14.0	18.0	23.0	29.0	36.0	44.0	57.0
60	0.91	1.80	2.70	3.5	5.4	7.2	8.8	11.5	14.0	18.0	22.0	28.0	35.0	42.0	55.0
65	0.91	1.80	2.70	3.5	5.3	7.1	8.6	11.2	13.0	17.0	21.0	28.0	34.0	40.0	52.0
70	0.91	1.80	2.70	3.5	5.3	6.9	8.6	11.0	13.0	17.0	21.0	27.0	33.0	38.0	50.0

Power Loss Per Pole															
In [A]	1 A	2 A	3 A	4 A	6 A	8 A	10 A	13 A	16 A	20 A	25 A	32 A	40 A	50 A	63 A
P[W]	1.5	2.0	1.8	2.0	2.2	2.6	1.5	1.7	1.7	2.0	2.2	2.6	2.9	3.8	4.4