

Miniature Circuit Breaker

N8BN,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
- Can be connected via standard busbars of both fork as well as pin type of connection



N8BN 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

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

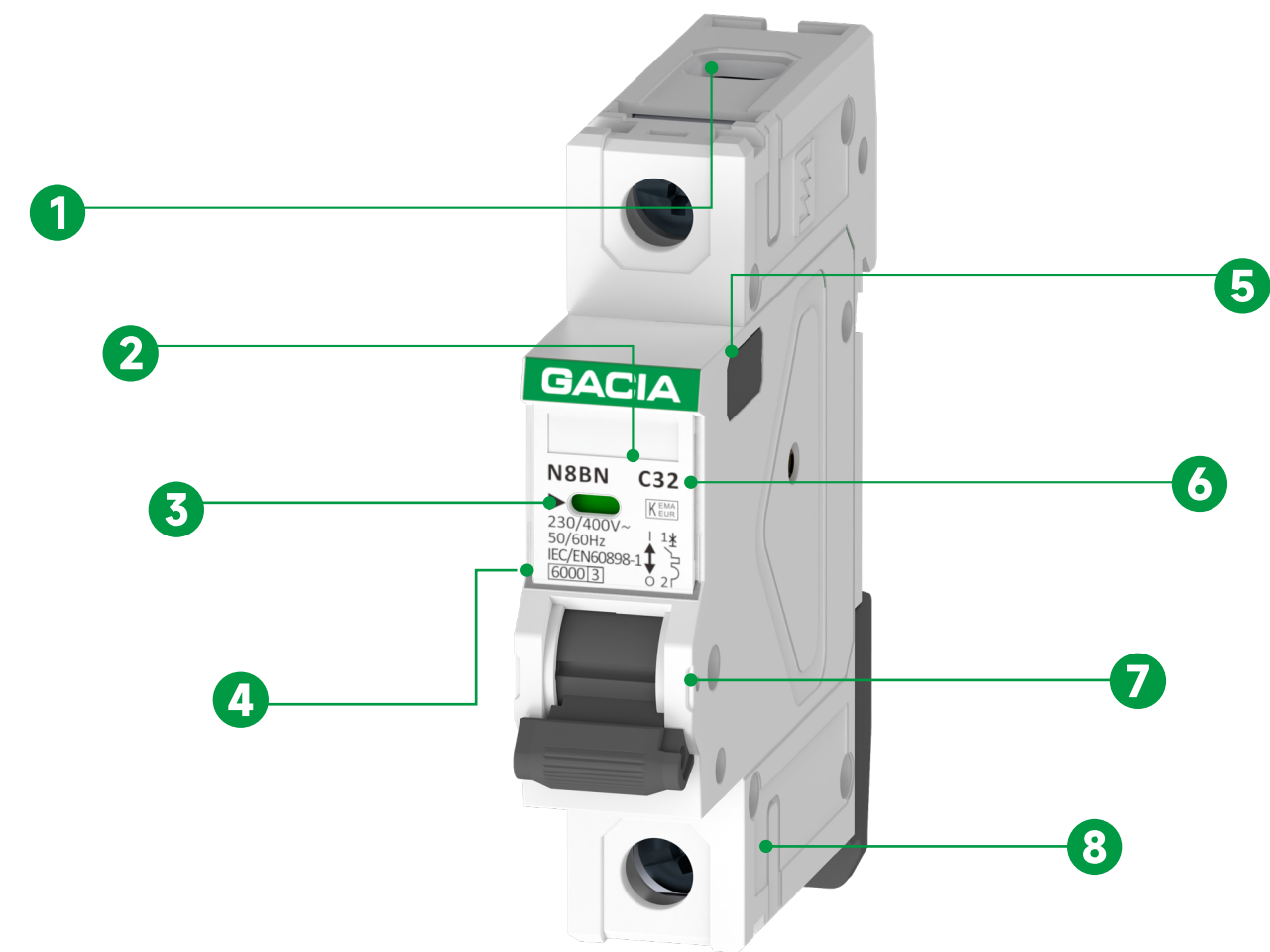
Certification Marks



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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 Wide range of accessories

6 Transparent cover

7 The position of handle Lock

8 Busbar interface

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 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	2-3.0N.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

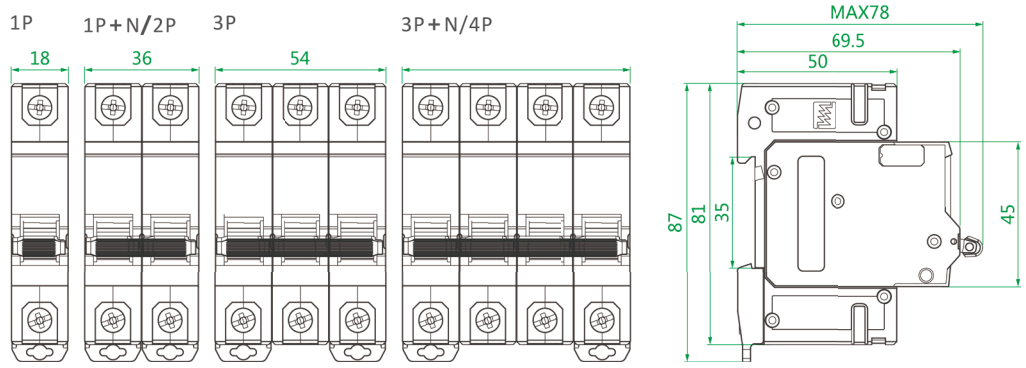
Combination with Accessories	
Auxiliary contact	Yes
Alarm contact	Yes
Shunt release	Yes
Shunt release + Aux	Yes
Undervoltage release	Yes
Overvoltage release	Yes
Over & under voltage release	Yes

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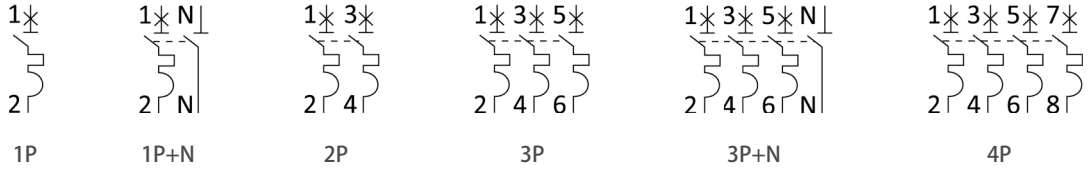
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Technical Data

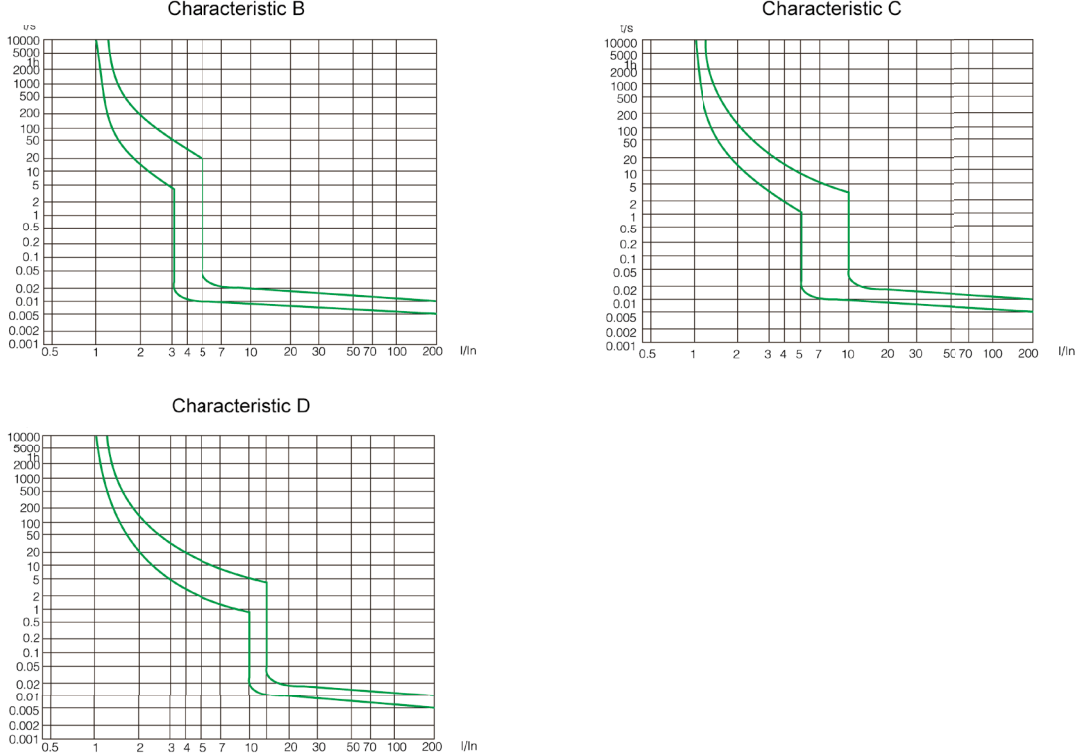
Dimensions



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