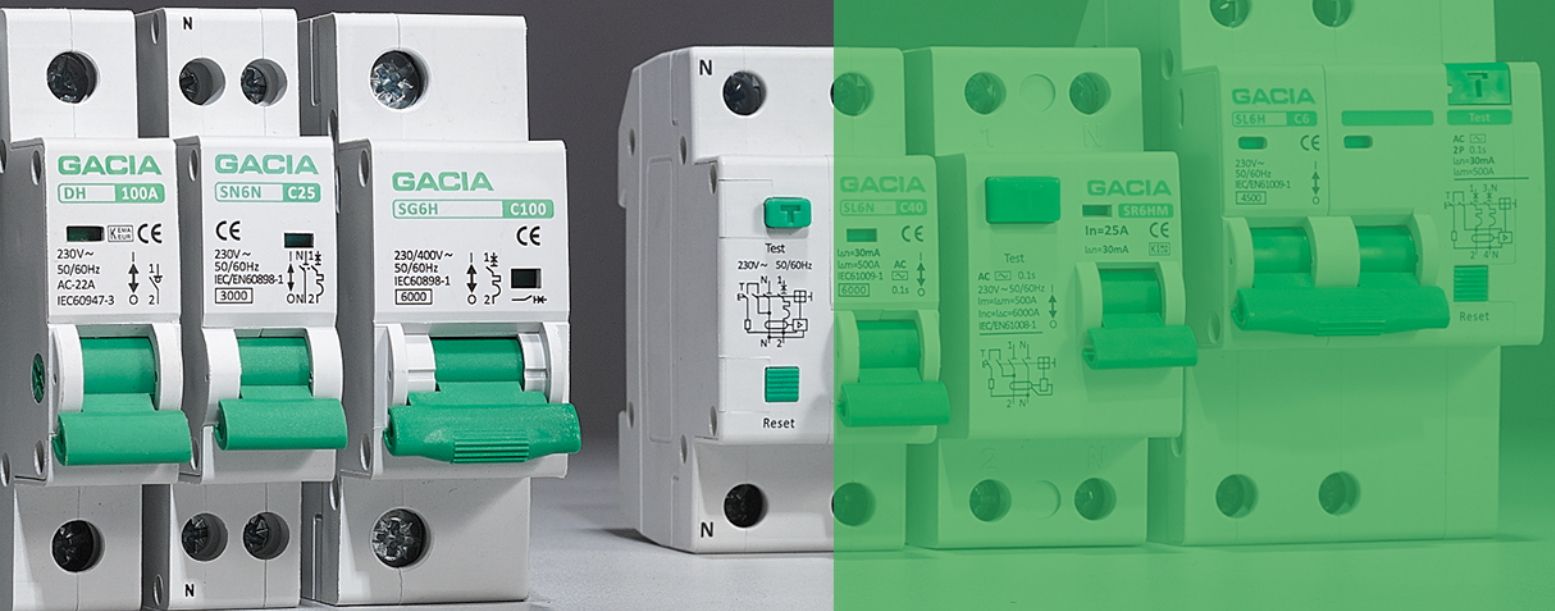


S Series Installation Devices

Low voltage



GACIA ELECTRICAL APPLIANCE CO., LTD.

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

GACIA



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





Product Content

Miniature Circuit Breaker

SB6NZ MCB, 3kA	01
SB6HS MCB, 4.5kA	06
SB6L MCB, 6kA	11
SB6LC MCB, 6kA	16
SN6N MCB, 3kA	21
SG6H MCB, 6kA	26

Isolator

DH	31
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Residual Current Device

SR6HE RCCB, 6kA	35
SR6HM RCCB, 6kA	40
SL6N RCBO, 4.5kA	45
SL6H RCBO, 6kA	50
SH6H RCBO, 6kA	55

MCB Accessories	60
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Miniature Circuit Breaker

SB6NZ,3kA

Miniature Circuit Breaker according to IEC/EN 60898-1

Rated short circuit breaking capacity 3kA

1 up to 4-pole versions

Tripping characteristics B, C, D

Rated current up to 63A

Rated operational voltage 230/400V AC



SB6NZ 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

S	B	6	N	Z	1P	B	16
Product series	Product category	Design Code	Breaking capacity	Structure code	Poles	Tripping curve	Rated current
Standard	MCB	6	3kA	None busbar interface	1,1N,2,3,3N,4	B,C,D	1-63A

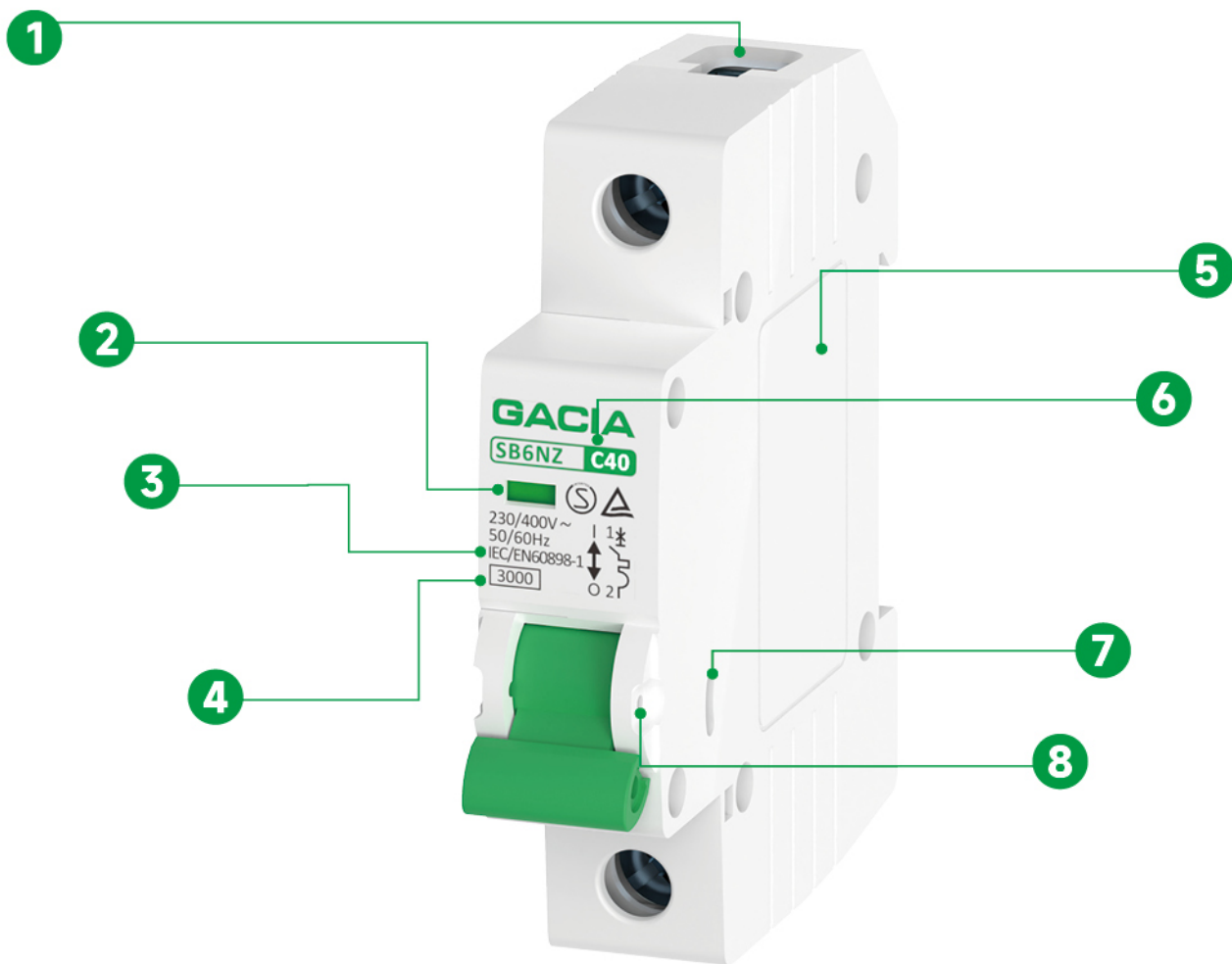
Certification Marks



Miniature Circuit Breaker

SB6NZ,3kA

Product Tips



- 1 Reversible line and load connection
- 2 Contacts position indication window
- 3 International standards
- 4 Rated short circuit breaking capacity 3000A
- 5 Modifiable modules for ODM clients
- 6 Tripping characteristics B, C, D
- 7 Wide range of accessories
- 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}	3kA
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
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

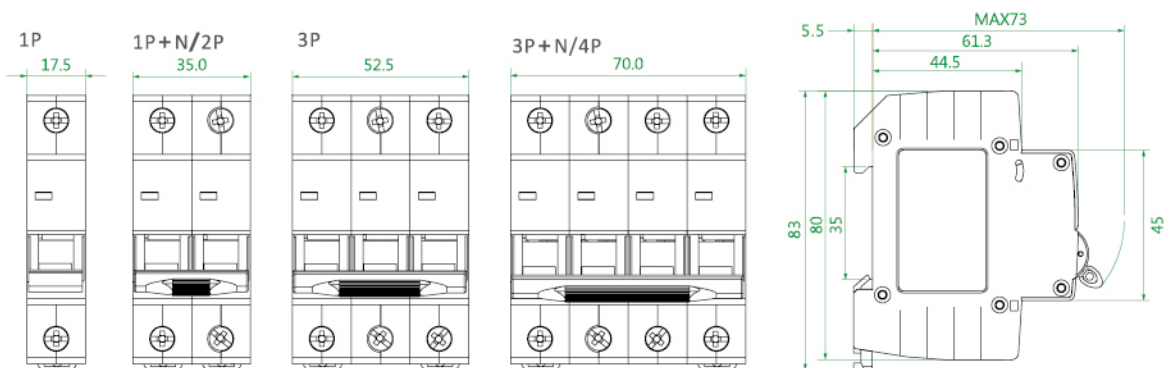
Combination with Accessories	
Auxiliary contact	Yes
Alarm contact	Yes
Shunt release	Yes
Shunt release + Aux	Yes
Undervoltage release	Yes
Overvoltage release	Yes
Over & under voltage release	Yes

Miniature Circuit Breaker

SB6NZ,3kA

Technical Data

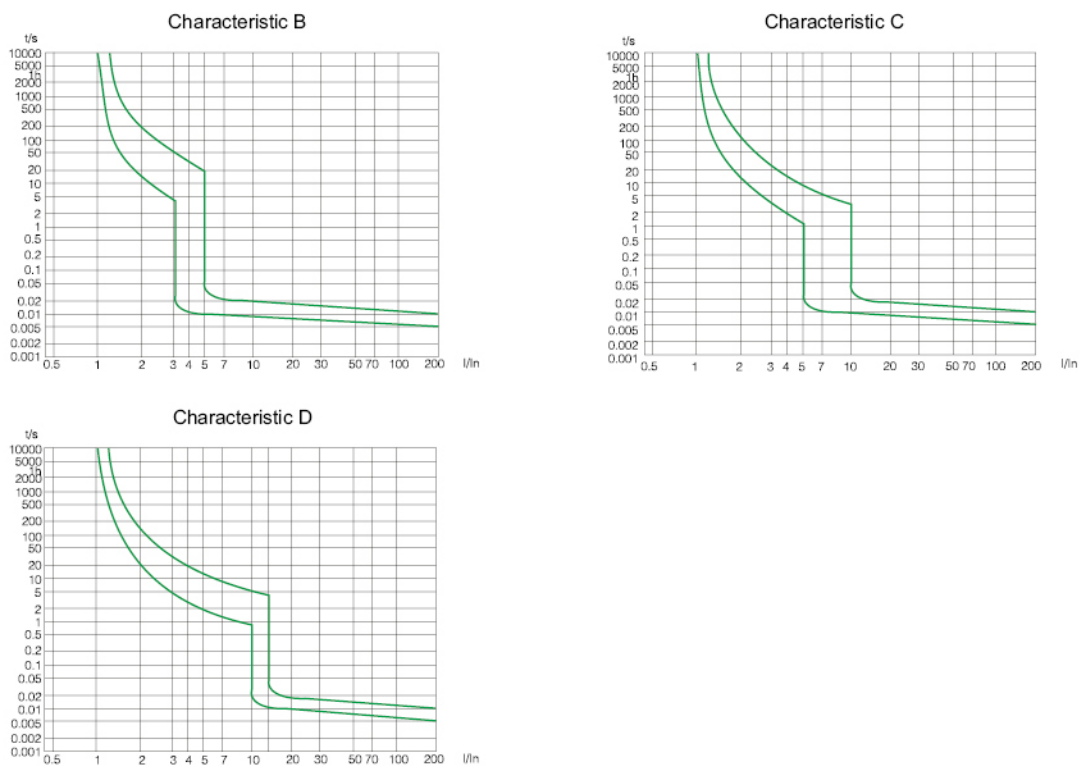
Dimensions



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

Miniature Circuit Breaker

SB6HS,4.5kA

Miniature Circuit Breaker according to IEC/EN 60898-1

Rated short circuit breaking capacity 4.5kA

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



SB6HS 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.

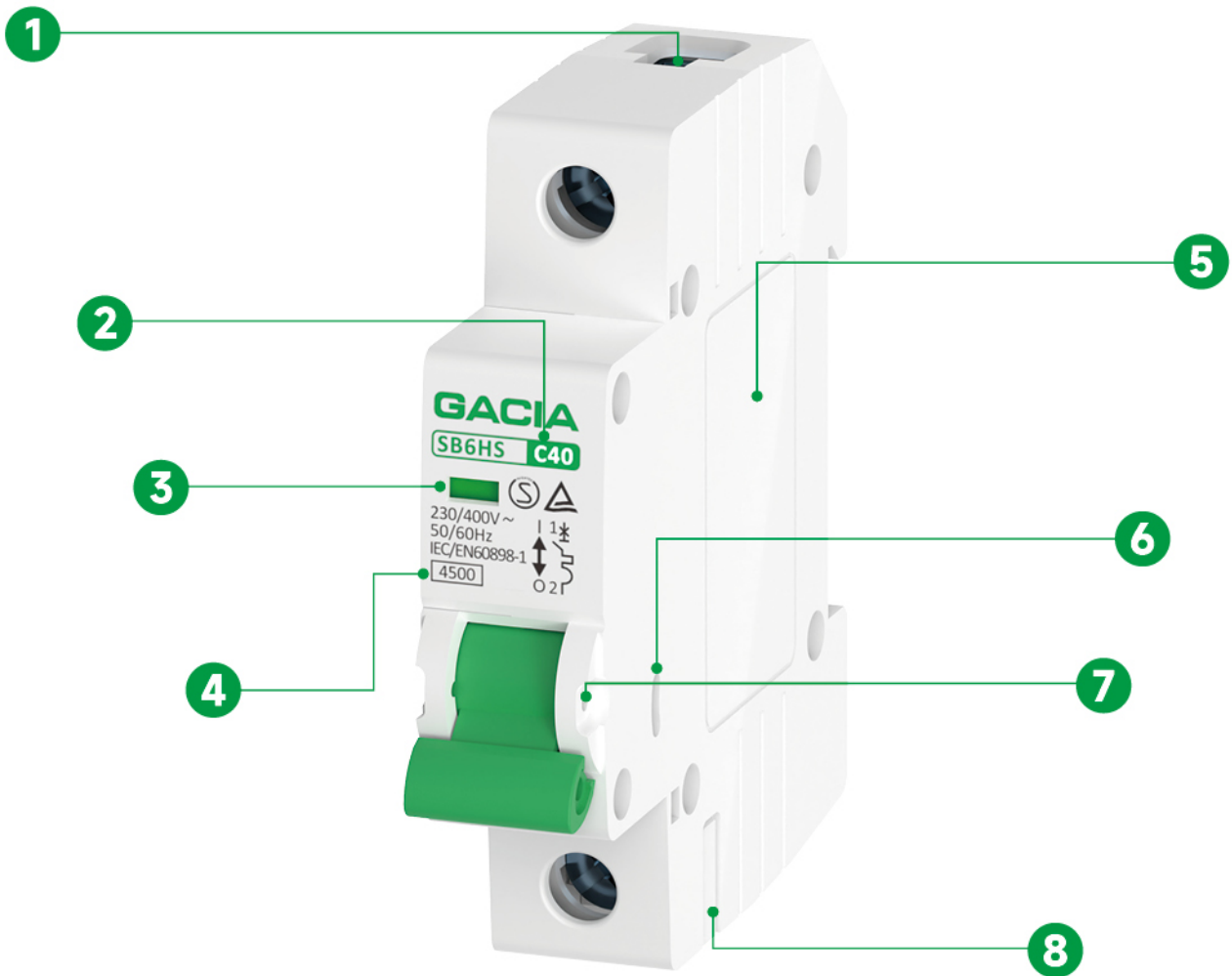
Type Key

S	B	6	H	S	1P	B	16
Product series	Product category	Design code	Breaking capacity	Structure code	Poles	Tripping curve	Rated current
Standard	MCB	6	4.5kA	Single busbar interface	1,1N,2,3,3N,4	B,C,D	1-63A

Certification Marks



Product Tips



- | | |
|---|--|
| <p>1 Reversible line and load connection</p> | <p>5 Modifiable modules for ODM clients</p> |
| <p>2 Tripping characteristics B, C, D</p> | <p>6 Wide range of accessories</p> |
| <p>3 Contacts position indication window</p> | <p>7 The position of handle lock</p> |
| <p>4 Rated short circuit breaking capacity 4500A</p> | <p>8 Busbar interface</p> |

Miniature Circuit Breaker

SB6HS,4.5kA

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}	4.5kA
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

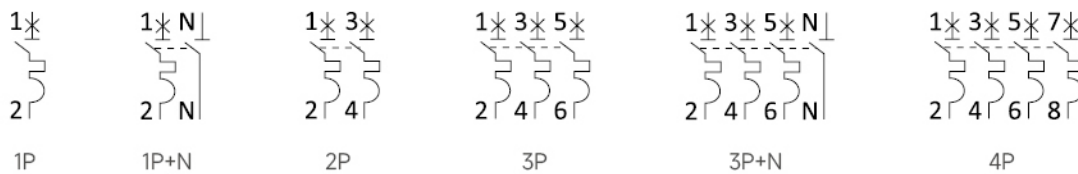


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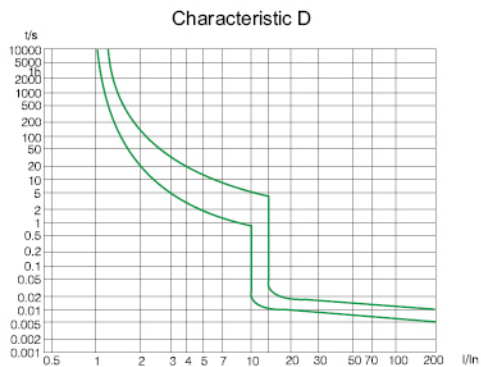
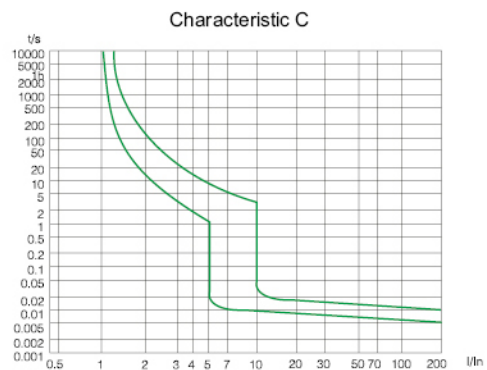
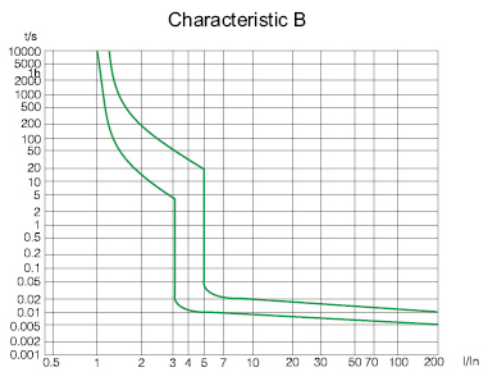
Dimensions



Wiring Diagrams



Tripping Characteristics



Miniature Circuit Breaker

SB6HS,4.5kA

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

Miniature Circuit Breaker

SB6L, 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



SB6L 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

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

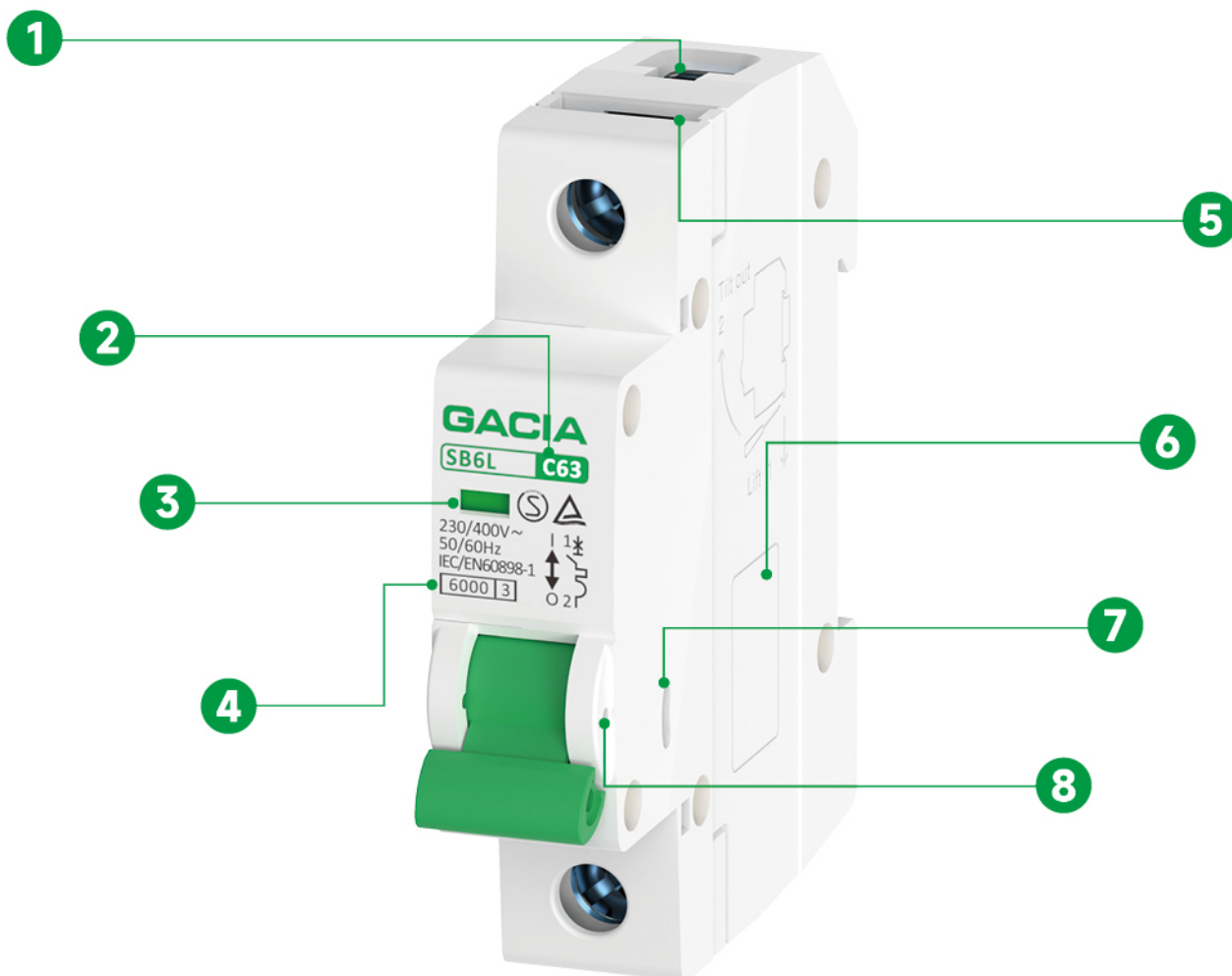
Certification Marks



Miniature Circuit Breaker

SB6L, 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 Modifiable modules for ODM clients
- 7 Wide range of accessories
- 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 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

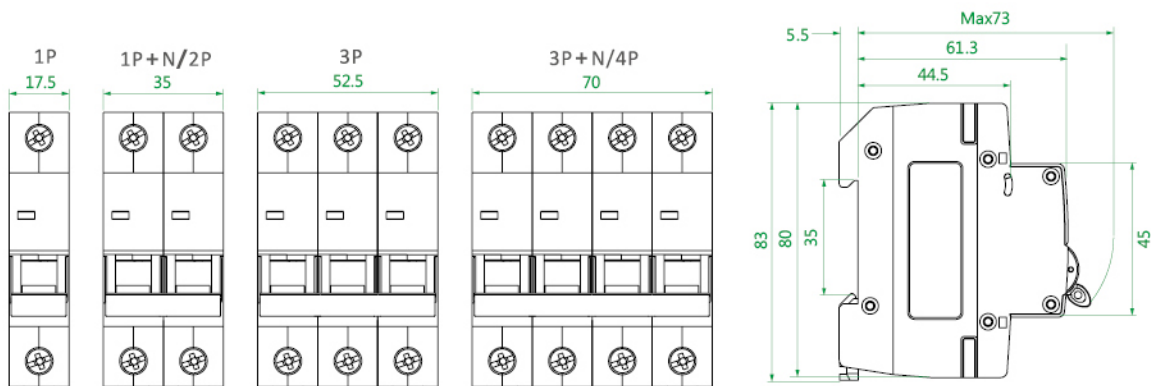
Combination with Accessories		
Auxiliary contact		Yes
Alarm contact		Yes
Shunt release		Yes
Shunt release + Aux		Yes
Undervoltage release		Yes
Overvoltage release		Yes
Over & under voltage release		Yes

Miniature Circuit Breaker

SB6L, 6kA

Technical Data

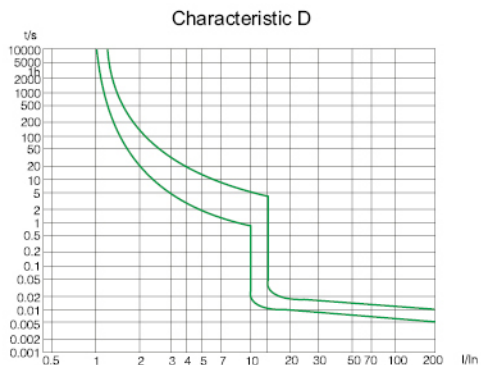
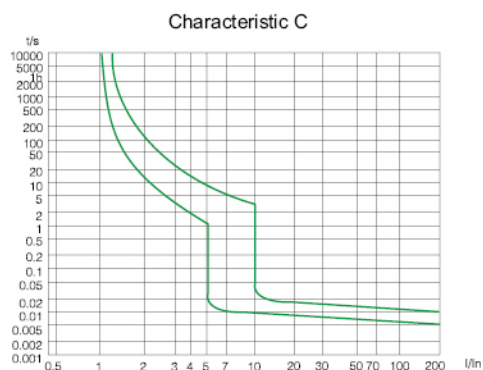
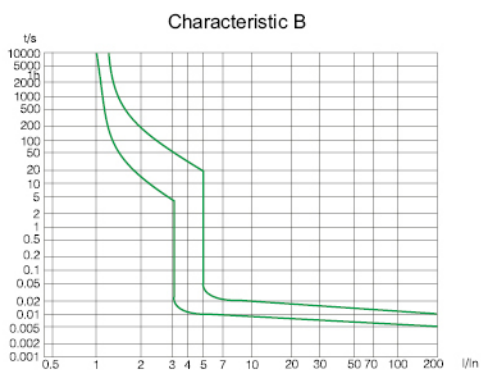
Dimensions



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

Miniature Circuit Breaker

SB6LC, 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



SB6LC 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.

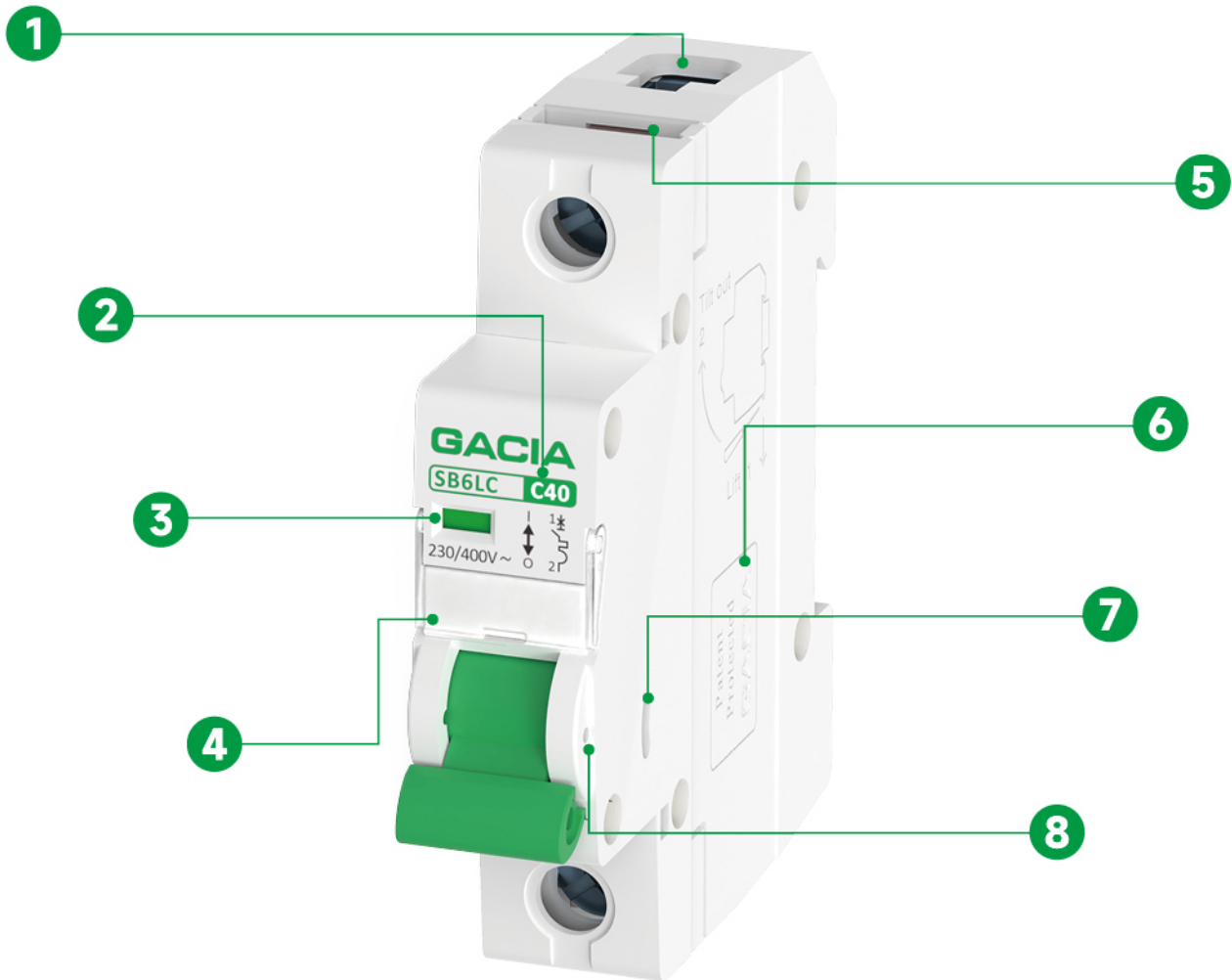
Type Key

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

Certification Marks



Product Tips



- ① Reversible line and load connection
- ② Tripping characteristics B, C, D
- ③ Contacts position indication window
- ④ Transparent cover

- ⑤ Busbar interface
- ⑥ Modifiable modules for ODM clients
- ⑦ Wide range of accessories
- ⑧ The position of handle lock

Miniature Circuit Breaker

SB6LC, 6kA

Technical Data

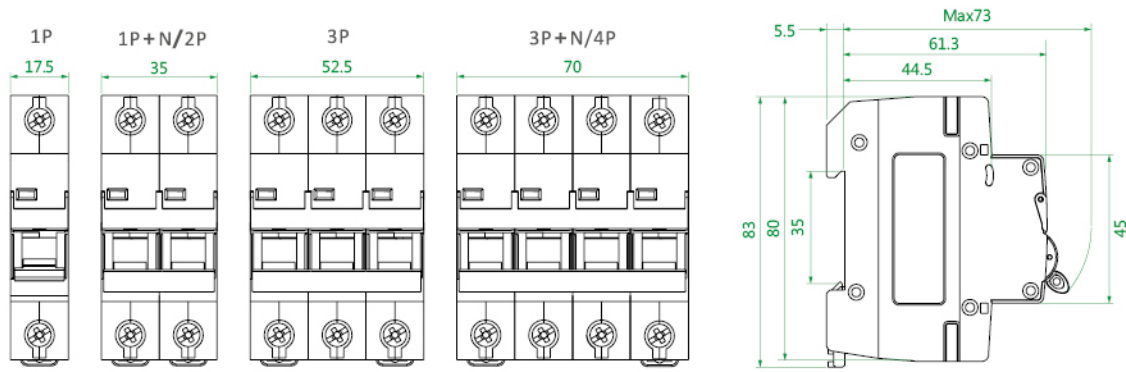
Electrical Features		
International standard		IEC/EN 60898-1
Poles		1P, 1P+N, 2P, 3P, 3P+N, 4P
Rated current		1-63A
Tripping characteristics		B, C, D
Rated breaking capacity	I_{cn}	6kA
Rated operational voltage	U_e	230/400V AC
Minimum operational voltage	U_{min}	12V AC
Maximum operational voltage	U_{max}	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

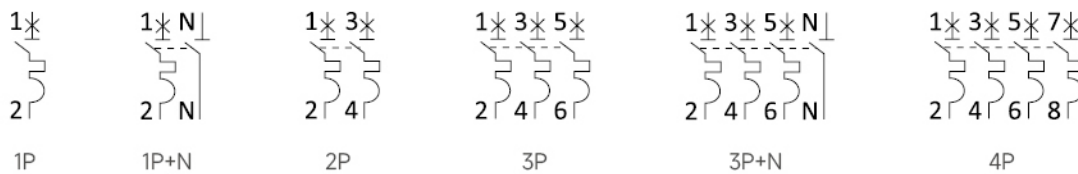
Combination with Accessories	
Auxiliary contact	Yes
Alarm contact	Yes
Shunt release	Yes
Shunt release + Aux	Yes
Undervoltage release	Yes
Overvoltage release	Yes
Over & under voltage release	Yes

Technical Data

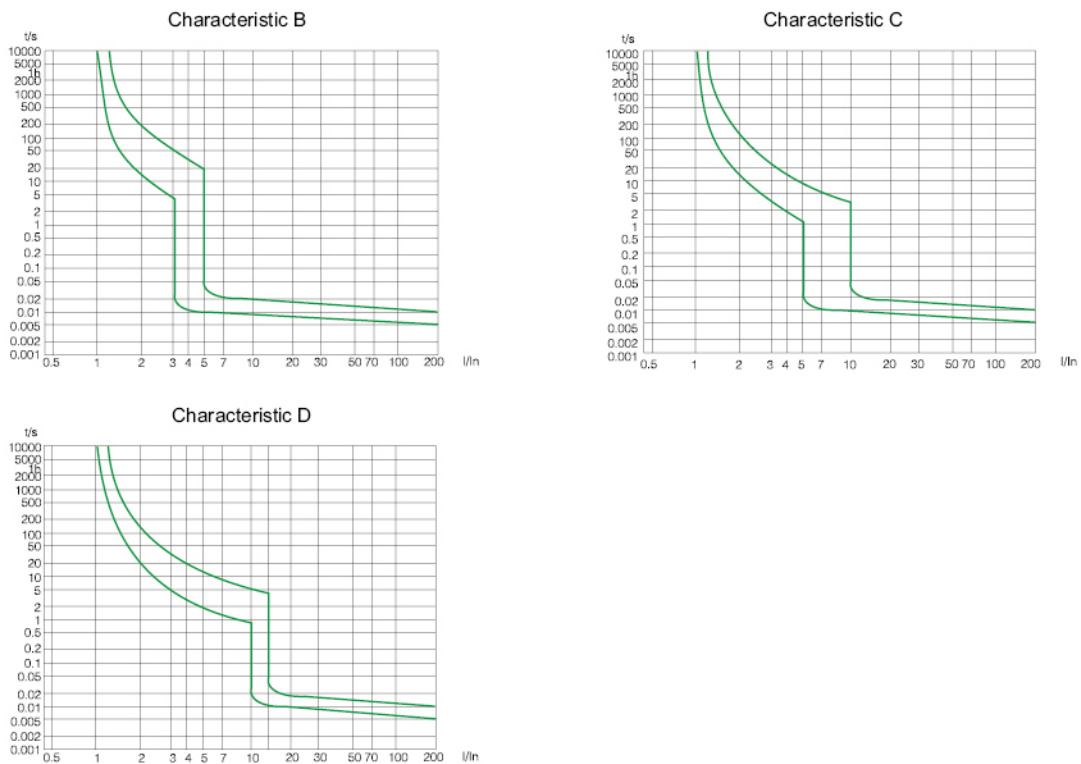
Dimensions



Wiring Diagrams



Tripping Characteristics



Miniature Circuit Breaker

SB6LC, 6kA

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

Miniature Circuit Breaker

SN6N,3kA

Miniature Circuit Breaker according to IEC/EN 60898-1

Rated short circuit breaking capacity 3kA

1+N pole MCB in one module design

Tripping characteristics B, C

Rated current up to 32A

Rated operational voltage 230/400V AC



SN6N 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

S	N	6	N	B	16
Product series	Product category	Design code	Breaking capacity	Tripping curve	Rated current
Standard	MCB 1P+N	6	3kA	B,C	1-32A

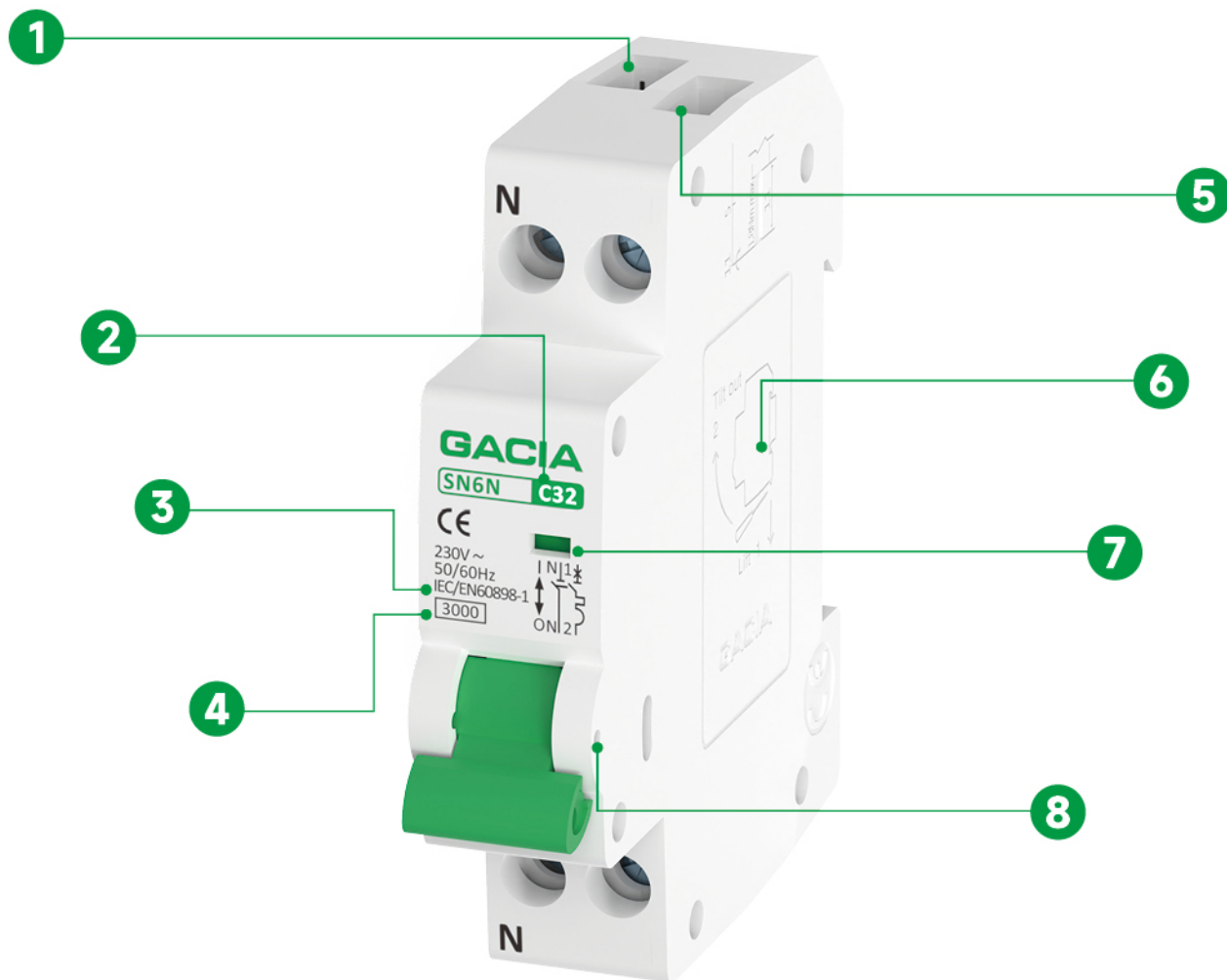
Certification Marks



Miniature Circuit Breaker

SN6N,3kA

Product Tips



- 1 Neutral line interface
- 2 Tripping characteristics B, C
- 3 International standards
- 4 Rated short circuit breaking capacity 3000A
- 5 Live line interface
- 6 Modifiable modules for ODM clients
- 7 Contacts position indication window
- 8 The position of handle lock

Technical Data

Electrical Features		
International standard		IEC/EN 60898-1
Poles		1P+N
Rated current		1-32A
Tripping characteristics		B, C
Rated breaking capacity	I_{cn}	3kA
Rated operational voltage	U_e	230V AC
Minimum operational voltage	U_{min}	12V AC
Maximum operational voltage	U_{max}	240V AC
Rated frequency		50/60Hz
Rated insulated voltage	U_i	400V AC
Rated impulse withstand voltage	U_{imp}	4kV
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
Connectable conductor cross section		1-10mm ²
Mounting		IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals		2.0N.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

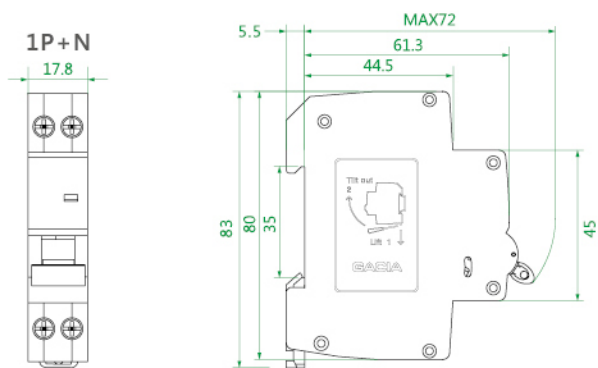
Combination with Accessories		
Auxiliary contact		NO
Alarm contact		NO
Shunt release		NO
Shunt release + Aux		NO
Undervoltage release		NO
Overvoltage release		NO
Over & under voltage release		NO

Miniature Circuit Breaker

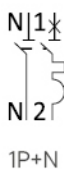
SN6N,3kA

Technical Data

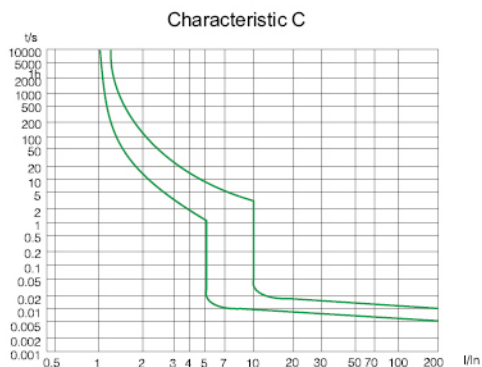
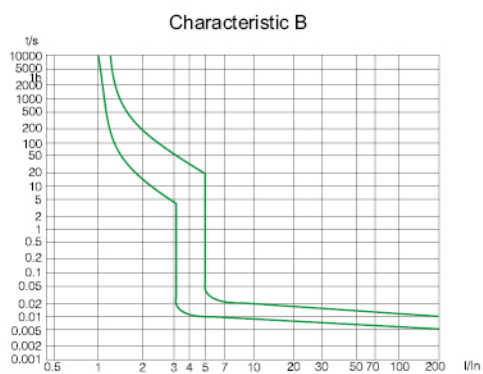
Dimensions



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	10 A	16 A	20 A	25 A	32 A
-20	1.35	2.6	4.1	5.3	8	13.5	20	24.5	29.8	39.5
-15	1.28	2.53	4.05	5.15	7.8	13.3	19.8	24.3	29.7	39.3
-10	1.25	2.4	3.95	5.08	7.6	13	19.5	24	29.5	39
-5	1.2	2.33	3.9	4.98	7.3	12.7	19.2	23.8	29.3	38.8
0	1.18	2.3	3.8	4.8	7.2	12.5	19.1	23.7	29.2	38.6
5	1.15	2.28	3.6	4.72	7	12.3	18.8	23.5	29	38.4
10	1.1	2.23	3.45	4.65	6.8	12.1	18.6	23.3	28.8	38.2
15	1.08	2.18	3.35	4.52	6.6	12	18.5	23.1	28.6	38
20	1.05	2.09	3.22	4.31	6.4	11.8	18.3	22.8	28.4	37.8
25	1.05	2.03	3.08	4.22	6.2	11.5	18	22.6	28.2	37.5
30	1	2	3	4	6	10	16	20	25	32
35	0.99	1.98	2.98	3.95	6	9.9	15.7	19.7	24.6	31.5
40	0.97	1.95	2.95	3.91	5.9	9.8	15.4	19.3	24.3	31.1
45	0.95	1.91	2.91	3.85	5.83	9.8	15.1	18.8	24	30.8
50	0.91	1.88	2.88	3.8	5.72	9.6	14.9	18.5	23.8	30.1
55	0.89	1.85	2.82	3.74	5.65	9.5	14.7	18.2	23.5	29.5
60	0.86	1.81	2.77	3.71	5.5	9	14.5	17.8	23	28.5
65	0.84	1.77	2.73	3.65	5.4	8.6	14	17.5	22	27.5
70	0.81	1.71	2.65	3.52	5.2	8	13.8	17.3	21.5	27

Miniature Circuit Breaker

SG6H,6kA

Miniature Circuit Breakers according to IEC/EN 60947-2

Rated short circuit breaking capacity 6kA

1 up to 4-pole versions

Tripping characteristics 8-12In

Rated current up to 125A

Rated operational voltage 230/400V AC



SG6H Miniature Circuit Breaker is suitable mainly for power distribution and industrial applications for short-circuit and overload current protection with rated current up to 125 A and a very high rated breaking capacities (tested according to EN 60947-2).

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

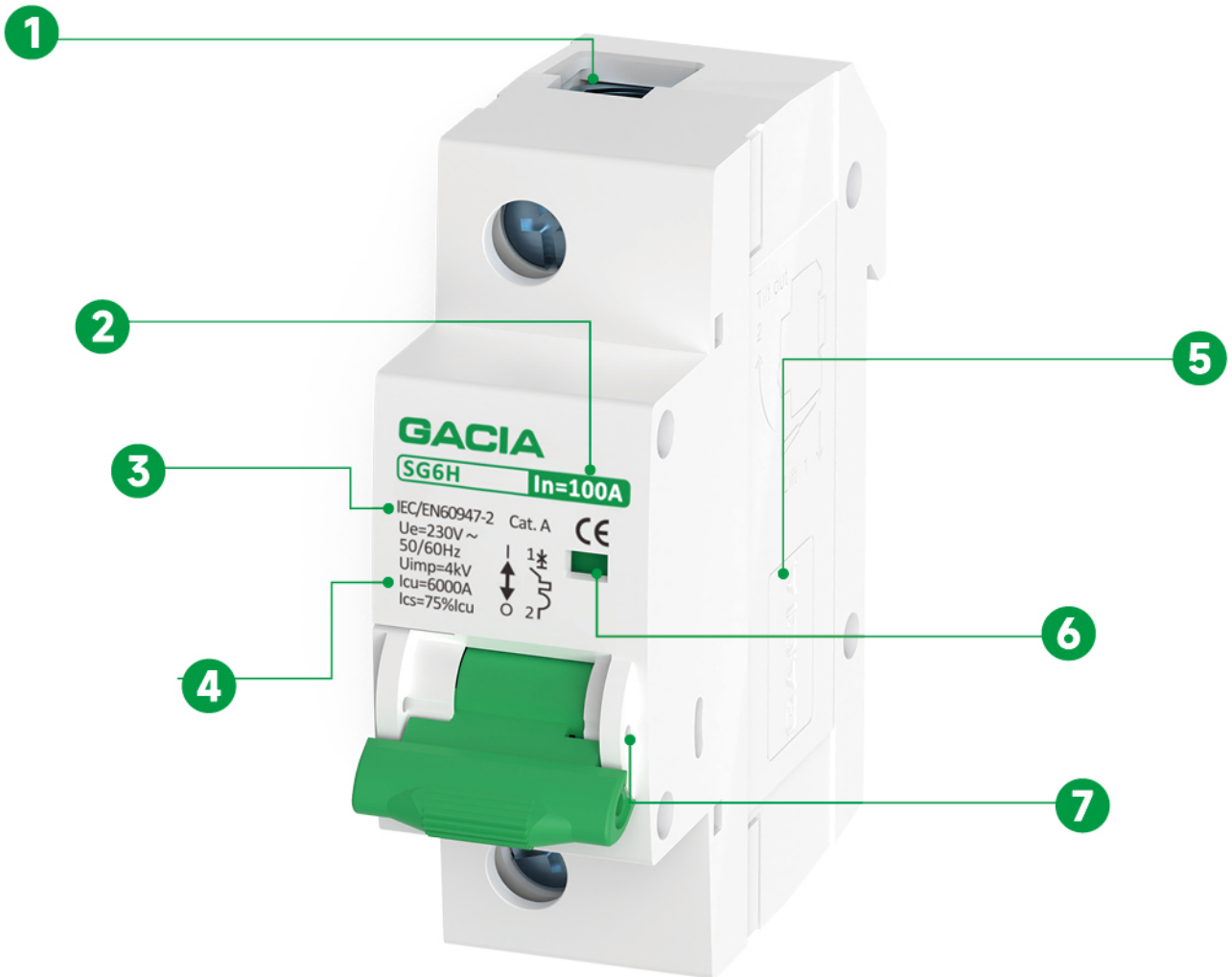
Type Key

S	G	6	H	1P	B	16
Product series	Product category	Design code	Breaking capacity	Poles	Tripping curve	Rated current
Standard	MCB-125	6	6kA	1, 2, 3, 4	8-12In	16-125A

Certification Marks



Product Tips



- 1** Reversible line and load connection

2 Rated current up to 125A

3 International standards

4 Rated short circuit breaking capacity 6000A
- 5** Modifiable modules for ODM clients

6 Contacts position indication window

7 The position of handle lock

Miniature Circuit Breaker

SG6H,6kA

Technical Data

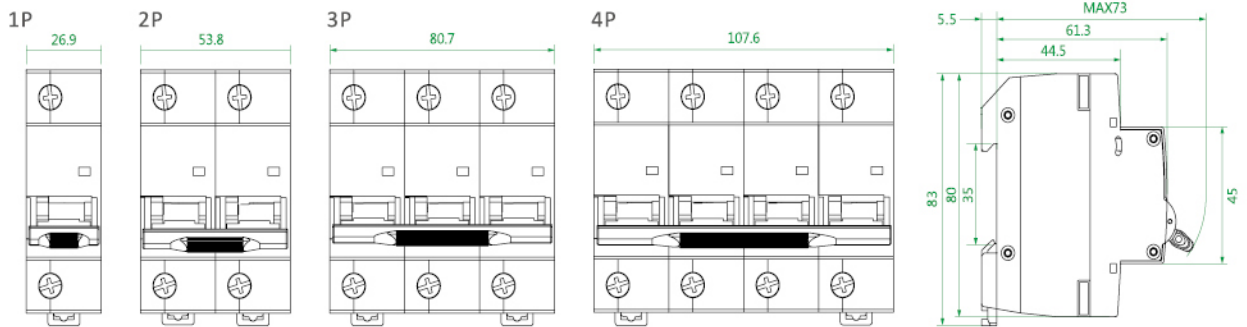
Electrical Features		
International standard		IEC/EN 60947-2
Poles		1P, 2P, 3P, 4P
Rated current		16-125A
Tripping characteristics		8-12In
Rated breaking capacity	I_{cn}	6kA
Rated operational voltage	U_e	230/400V AC
Minimum operational voltage	U_{min}	12V AC
Maximum operational voltage	U_{max}	440V AC
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
Connectable conductor cross section	2.5-50mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2-3.5N.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

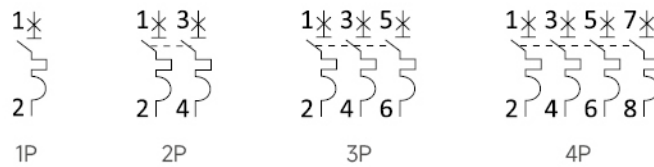
Combination with Accessories	
Auxiliary contact	NO
Alarm contact	NO
Shunt release	NO
Shunt release + Aux	NO
Undervoltage release	NO
Overvoltage release	NO
Over & under voltage release	NO

Technical Data

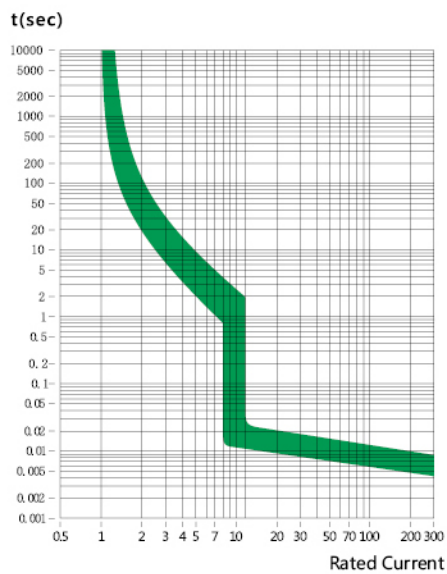
Dimensions



Wiring Diagrams



Tripping Characteristics



Miniature Circuit Breaker

SG6H,6kA

Technical Data

Dependence of Tripping Characteristics on Ambient Temperature									
T [°C]	In (T) [A]								
	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A
-30	20.5	25.3	31.1	40.5	51.3	64.2	82.1	105.2	132.6
-20	19.8	24.5	30.2	39.2	49.2	62.4	79.2	103.1	129.8
-10	19.0	23.7	29.6	37.9	47.5	59.8	76.3	99.1	124.0
0	18.4	22.8	28.2	36.5	45.8	57.4	73.2	94.9	118.1
10	17.6	21.9	27.7	35.0	44.3	55.4	70.0	90.3	113.3
20	16.8	21.0	26.1	33.6	42.0	52.6	66.6	86.7	108.2
30	16	20	25	32	40	50	63	80	100
40	15.4	19.3	24.5	31.4	39.2	48.7	61.6	75.8	94.2
50	15.0	18.8	23.2	30.9	37.6	46.2	58.8	71.3	89.6
60	14.2	18.1	22.1	28.6	35.8	42.6	55.4	67.9	85.1
70	13.5	17.7	20.6	27.5	33.1	38.3	50.5	66.3	82.2

Power Loss Per Pole									
In [A]	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A
P[W]	2.1	2.5	2.9	3.1	3.8	4.4	5.6	6.7	7.7

Isolator DH

Modular Isolator

Rated short-time withstand current $I_{cw}=12 \times I_e, 1s$

1 up to 4-pole versions

Rated current up to 125A

Rated operational voltage 230/400V AC

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



DH Isolator is used to ensure that an electrical circuit is completely de-energized for service or maintenance. They are only used for breaking the circuit and are often found in electrical distribution and industrial applications, where machinery must have its source of driving power removed for adjustment or repair.

Type Key

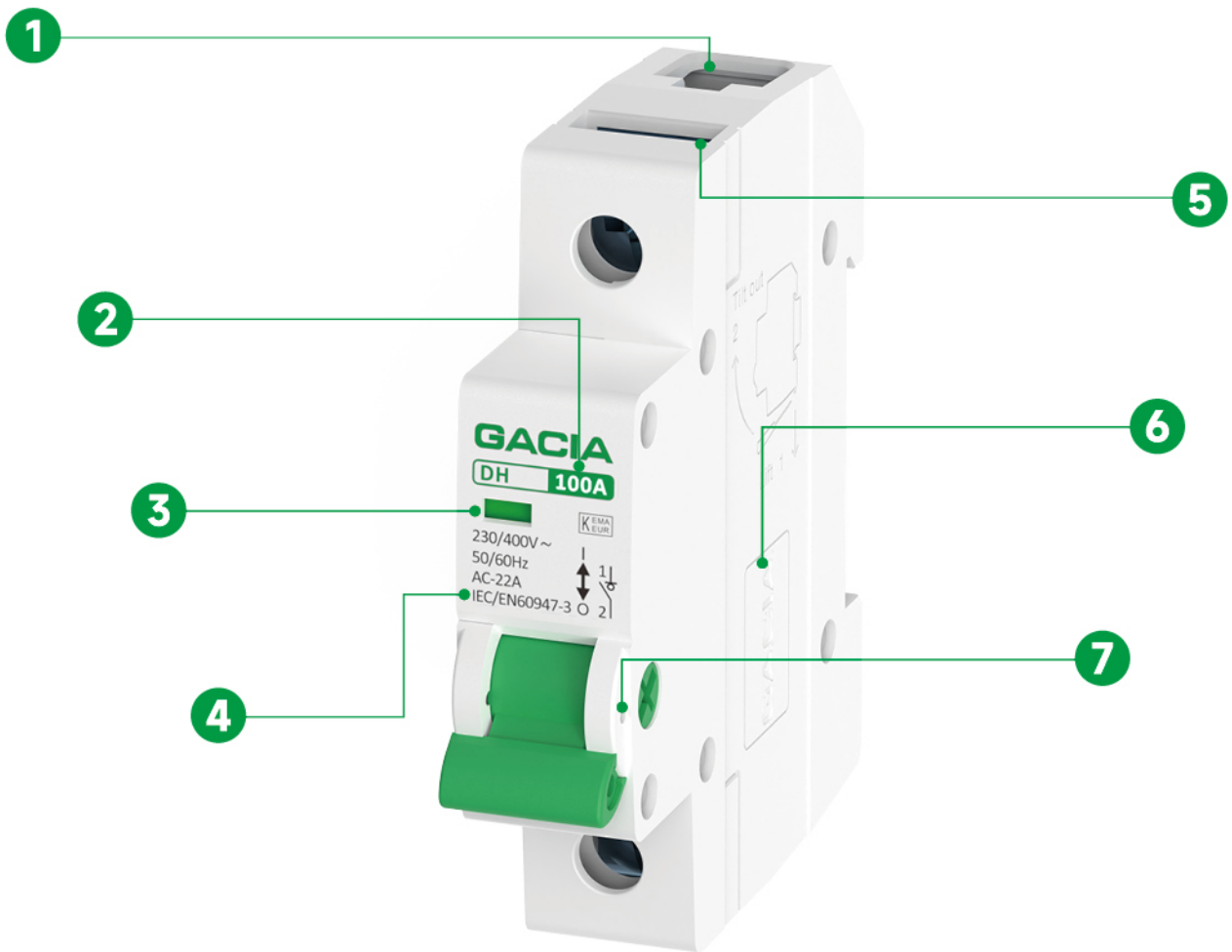
DH	1P	100
Product category	Poles	Rated current
Isolator	1, 2, 3, 4	63-125A

Certification Marks



Isolator DH

Product Tips



1 Reversible line and load connection

2 Rated current up to 125A

3 Contacts position indication window

4 International standards

5 Busbar interface

6 Modifiable modules for ODM clients

7 The position of handle lock

Technical Data

Electrical Features		
International standard	IEC/EN 60947-3	
Poles	1P, 2P, 3P, 4P	
Rated current	63-125A	
Utilization category	AC-22A	
Rated operational voltage	U_e	230/400V AC
Rated frequency	50/60Hz	
Rated insulated voltage	U_i	500V AC
Rated impulse withstand voltage	U_{imp}	6kV
Rated short-time withstand current	$I_{cw}, 1s$	12×Ie
Rated short-time making capacity Icm	In=63A	1260A
	In=80, 100, 125A	2500A
Mechanical service life	10000 operation cycles	
Electrical service life	4000 operation cycles	

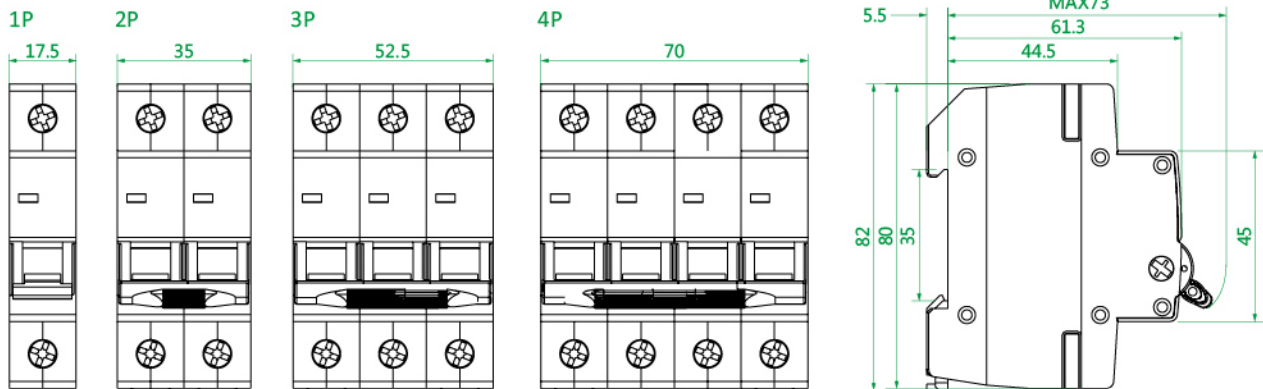
Installation Parameters	
Degree of protection (IP)	IP20, IP40 (when fitted)
Operating ambient temperature	-25°C ~+70°C
Terminal connection type	Cable/Busbar
Connectable conductor cross section	16-50mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2-3.5N.m
Pollution degree	2
Altitude	≤ 2000m
Relative humidity	≤ 95%
Resistance to humidity and heat	Class 2
Installation class	III

Combination with Accessories	
Auxiliary contact	NO
Alarm contact	NO
Shunt release	NO
Shunt release + Aux	NO
Undervoltage release	NO
Overvoltage release	NO
Over & under voltage release	NO

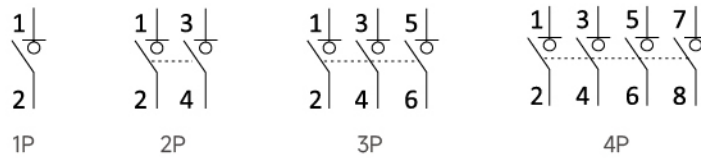
Isolator DH

Technical Data

Dimensions



Wiring Diagrams



Residual Current Circuit Breaker

SR6HE,6kA

GACIA SR6HE 6kA Residual Current Device



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

Electronic type

Cond. rated short circuit strength I_{nc} 6kA

2 and 4-pole versions

Rated residual current 10,30,100,300 and 500mA

Rated current up to 63A

Rated operational voltage 230/400V AC

AC and A types



SR6HE 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

S	B	6	H	E	2P	25A	30mA
Product series	Product category	Design code	Conditional short circuit strength	Structure code	Poles	Rated current	Rated residual current
Standard	RCCB	6	6kA	Electronic	2P, 4P	25-63A	10-500mA

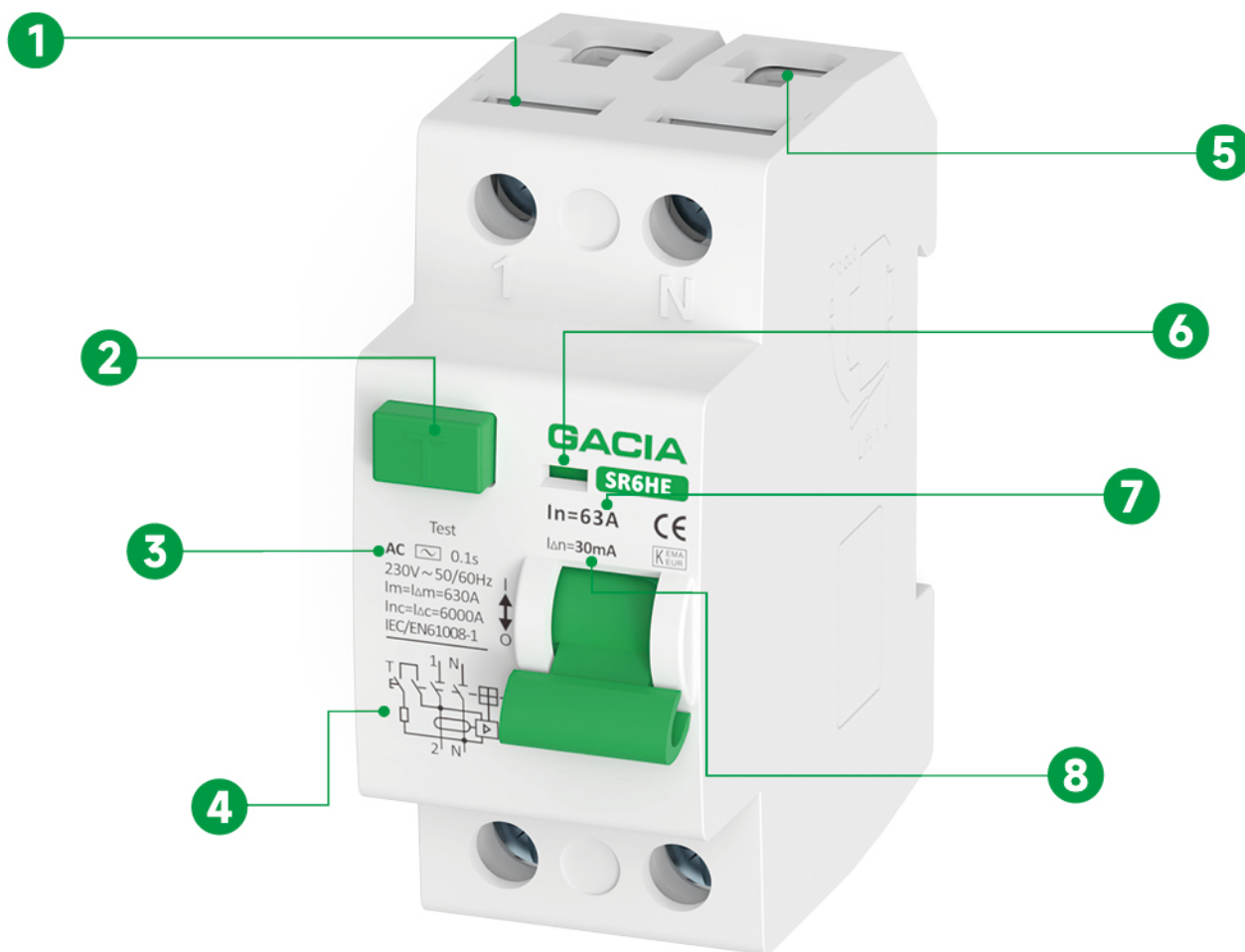
Certification Marks



Residual Current Circuit Breaker

SR6HE,6kA

Product Tips



- 1 Busbar interface
- 2 Test button
- 3 Sensitivity to residual current AC
- 4 Electronic circuit diagram
- 5 Neutral line interface
- 6 Contacts position indication window
- 7 Rated current up to 63A
- 8 Variants from 10 to 500mA $I_{\Delta n}$ available

Technical Data

Electrical Features	
International standard	IEC/EN 61008-1
Poles	2P, 4P
Rated current	25, 40, 63A
Rated residual current $I_{\Delta n}$	10, 30, 100, 300, 500mA
Residual current protection type	Electronic
Conditional short circuit strength I_{nc}	6kA
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	AC type - AC residual current A type - residual AC and pulsating DC current
Time characteristic	AC, A-Undelayed type
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 $I_m / I_{\Delta m}$	
$I_n=25A$	500A
$I_n=40A$	500A
$I_n=63A$	630A

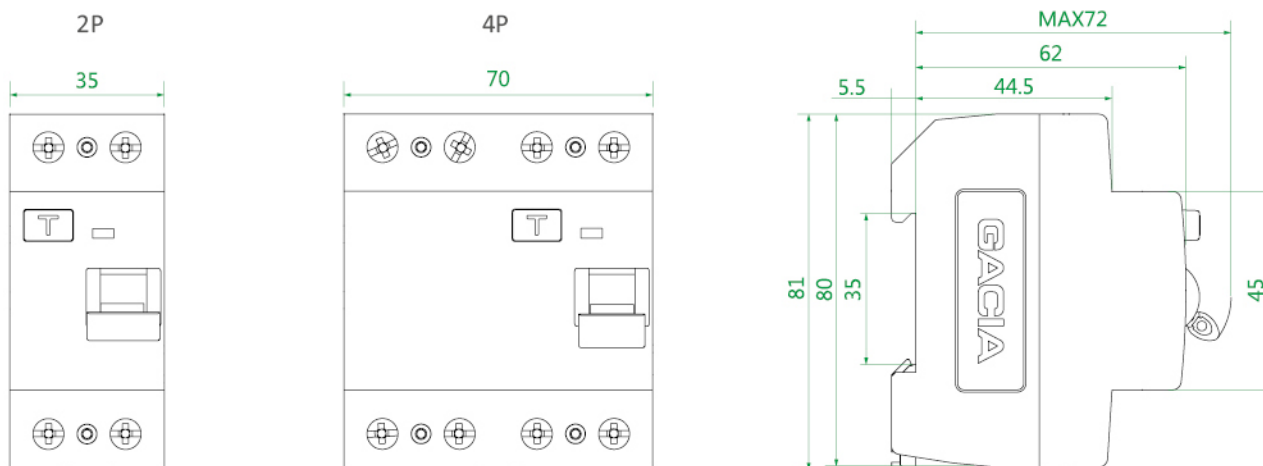
Installation Parameters	
Degree of protection (IP)	IP20, IP40 (when fitted)
Operating ambient temperature	-25°C ~+70°C
Terminal connection type	Cable/Busbar
Connectable conductor cross section	1-25mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2-3.0N.m
Pollution degree	2
Altitude	≤ 2000m
Relative humidity	≤ 95%
Resistance to humidity and heat	Class 2
Installation class	III

Residual Current Circuit Breaker

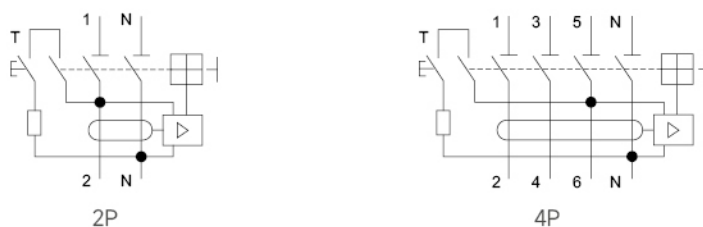
SR6HE,6kA

Technical Data

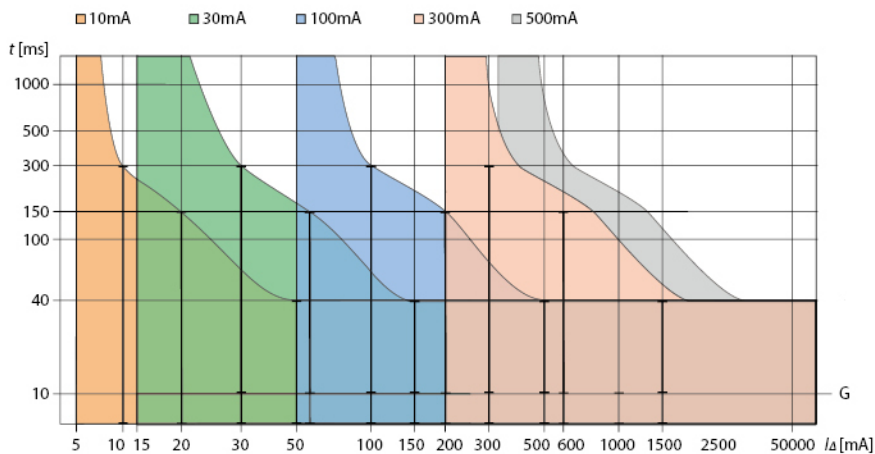
Dimensions



Wiring Diagrams



Tripping Characteristics



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
	500mA	3.4W	7.2W
40A	30mA	7.2W	15.3W
	100mA	7.2W	15.3W
	300mA	7.2W	15.3W
	500mA	7.2W	15.3W
63A	30mA	15W	24W
	100mA	15W	24W
	300mA	15W	24W
	500mA	15W	24W

Residual Current Circuit Breaker

SR6HM,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



SR6HM 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.

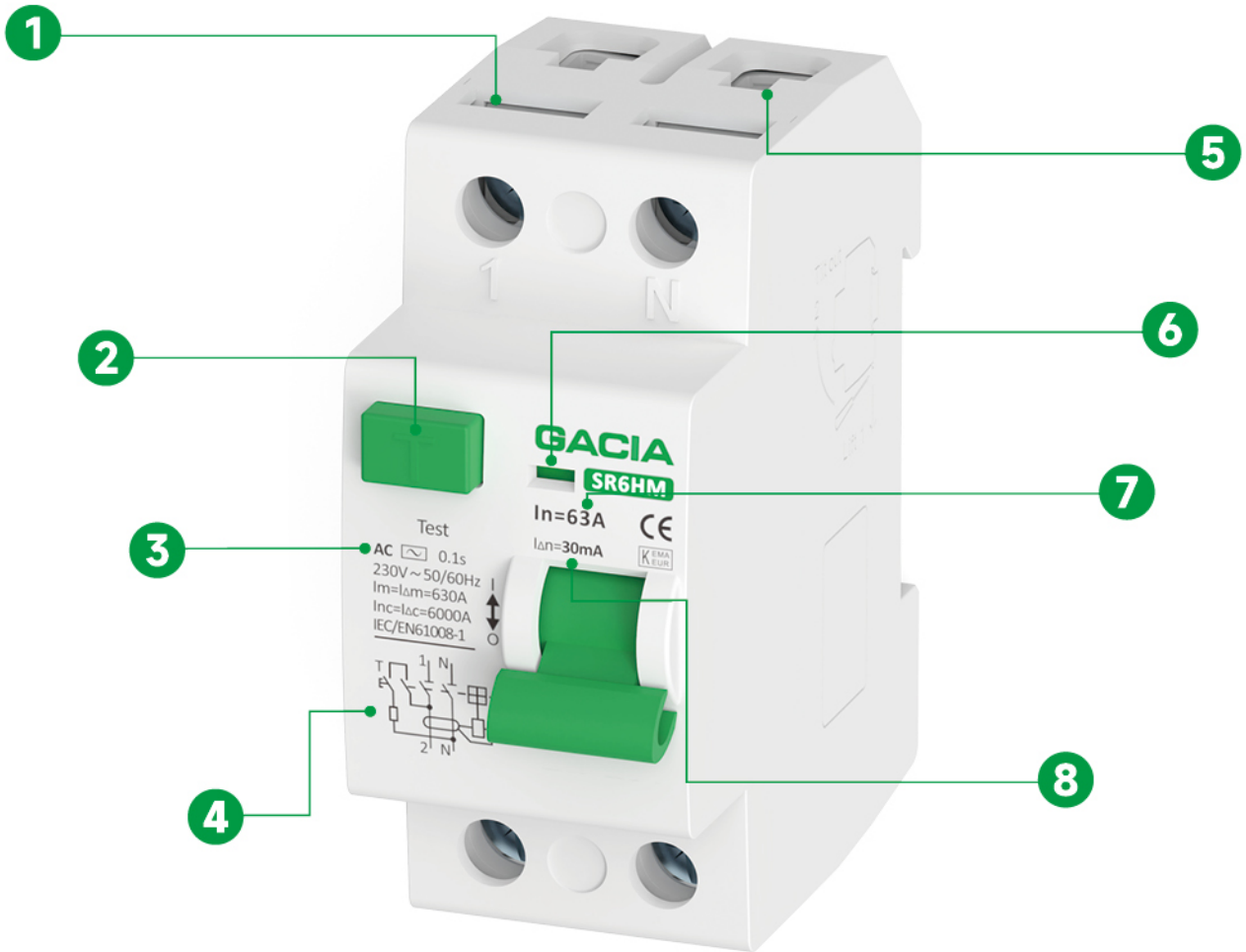
Type Key

S	B	6	H	M	2P	25A	30mA
Product series	Product category	Design code	Conditional short circuit strength	Structure code	Poles	Rated current	Rated residual current
Standard	RCCB	6	6kA	Electromagnetic	2P, 4P	25-63A	10-300mA

Certification Marks



Product Tips



- | | |
|---|---|
| 1 Busbar interface | 5 Neutral line interface |
| 2 Test button | 6 Contacts position indication window |
| 3 Sensitivity to residual current AC | 7 Rated current up to 63A |
| 4 Electromagnetic circuit diagram | 8 Variants from 10 to 300mA $I_{\Delta n}$ available |

Residual Current Circuit Breaker

SR6HM,6kA

Technical Data

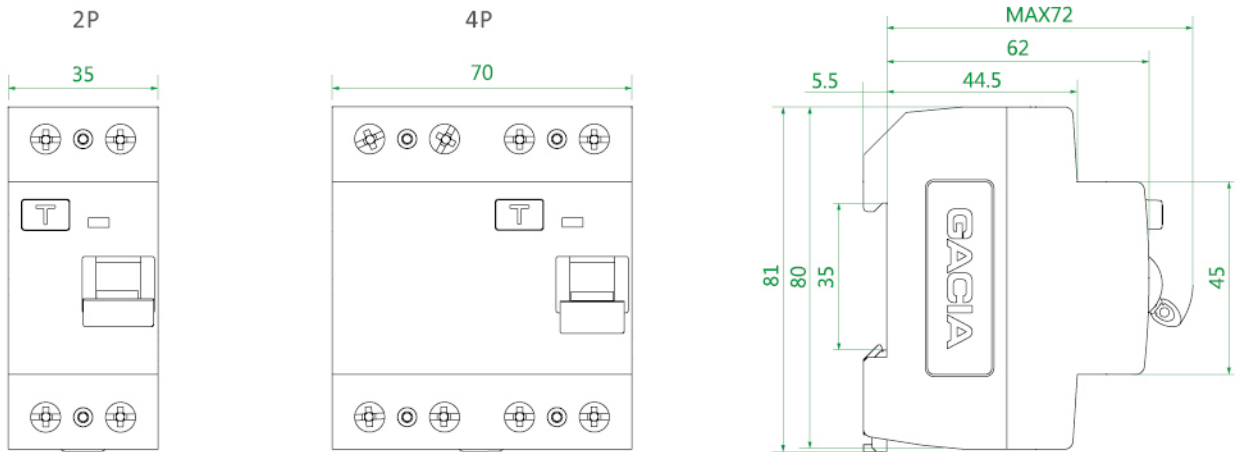
Electrical Features	
International standard	IEC/EN 61008-1
Poles	2P, 4P
Rated current	25, 40, 63A
Rated residual current $I_{\Delta n}$	10, 30, 100, 300mA
Residual current protection type	Electromagnetic
Conditional short circuit strength I_{nc}	6kA
Rated operational voltage U_e	230/400V AC
Min.voltage 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 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 $I_m/ I_{\Delta m}$	
$I_n=25A$	500A
$I_n=40A$	500A
$I_n=63A$	630A
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
Altitude	≤ 2000m
Relative humidity	≤ 95%
Resistance to humidity and heat	Class 2
Installation class	III

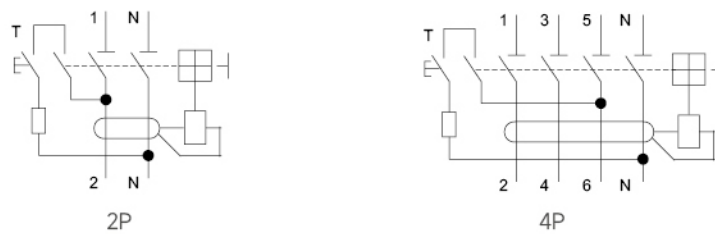


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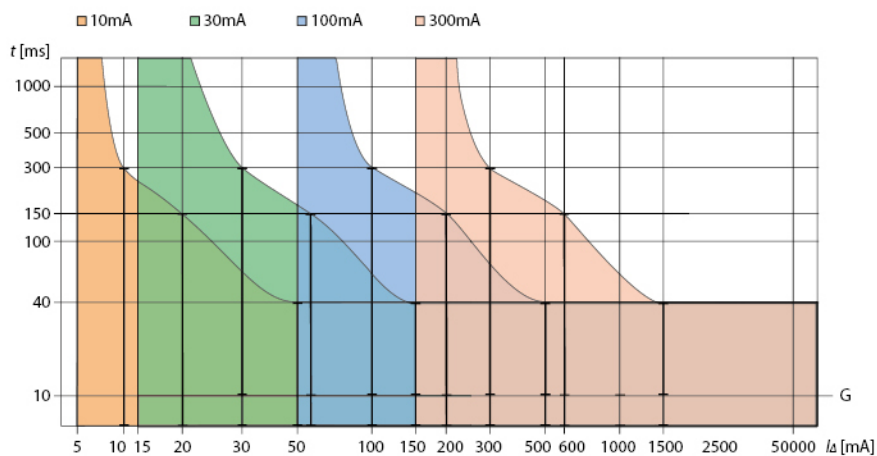
Dimensions



Wiring Diagrams



Tripping Characteristics



Residual Current Circuit Breaker

SR6HM,6kA

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

Residual Current Circuit Breaker with Overload Protection SL6N,4.5kA

Residual Current Circuit Breaker with Overload Protection according to IEC/EN 61009-1

Electronic type

Rated short circuit breaking capacity 4.5kA

1+N-pole version

Rated residual current 10, 30, 100, 300mA

Rated current up to 63 A

2-module width

AC type



SL6N 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

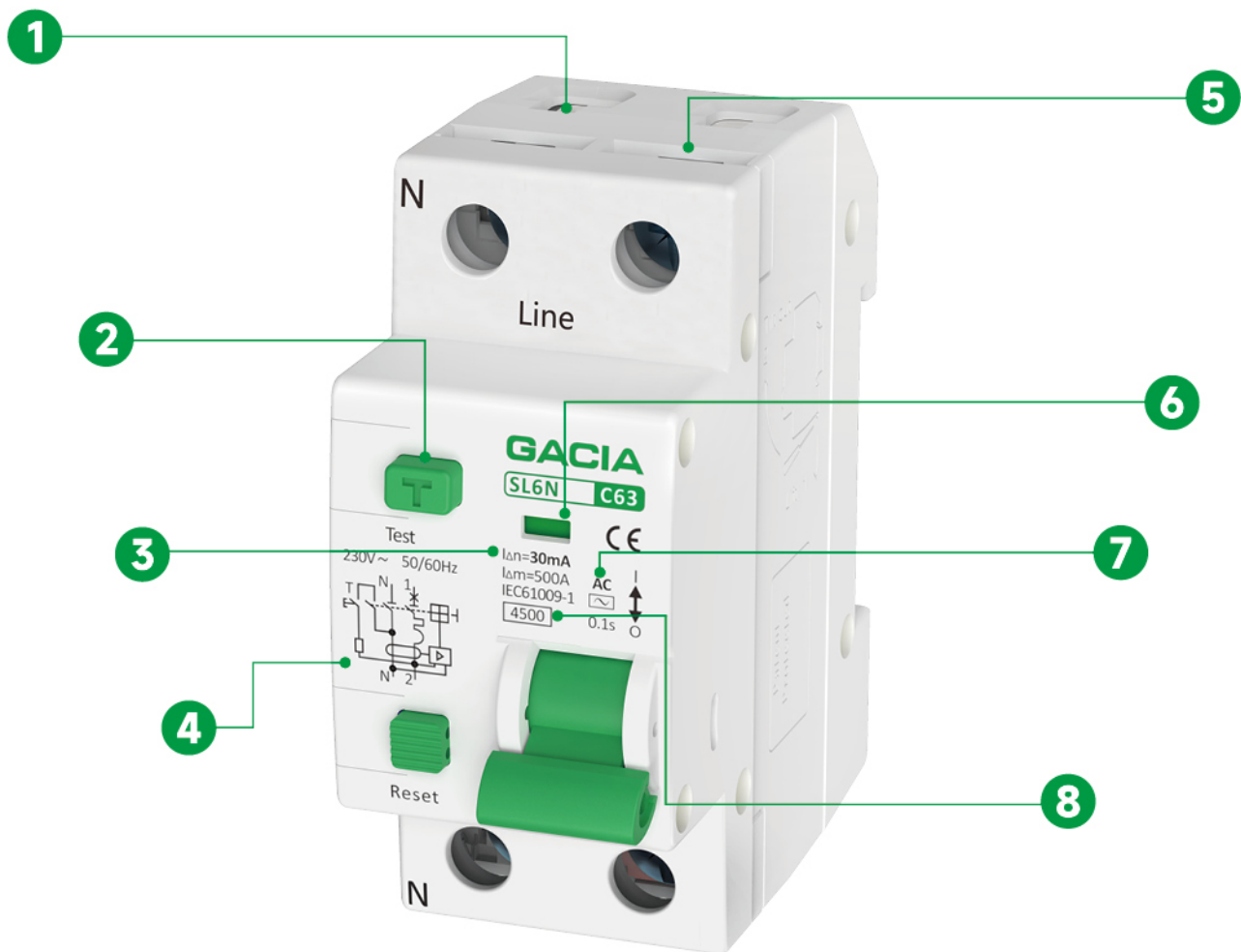
S	L	6	N	25A	30mA
Product series	Product category	Design code	Breaking capacity	Rated current	Rated residual current
Standard	RCBO	6	4.5kA	6-63A	10-300mA

Certification Marks



Residual Current Circuit Breaker with Overload Protection **SL6N,4.5kA**

Product Tips



- | | |
|--|--|
| 1 Neutral line interface | 5 Busbar interface |
| 2 Test button | 6 Contacts position indication window |
| 3 Variants from 10 to 300mA $I_{\Delta n}$ available | 7 Sensitivity to residual current AC |
| 4 Electronic circuit diagram with overload protection | 8 Rated short circuit breaking capacity 4500A |

Technical Data

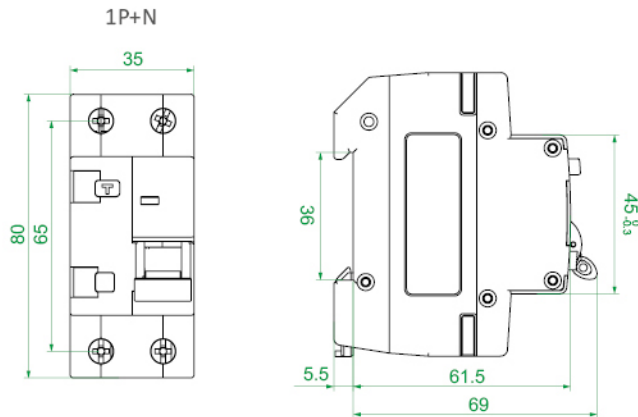
Electrical Features	
International standard	IEC/EN 61009-1
Poles	1P+N
Tripping characteristics of MCB	B, C
Rated current	6-63A
Rated residual current $I_{\Delta n}$	10, 30, 100, 300mA
Residual current protection type	Electronic
Rated breaking capacity I_{cn}	4.5kA
Rated operational voltage U_e	230/400V AC
Voltage range of the test button T	195.5 - 253V AC
Sensitivity to residual current	AC type - AC residual 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	2-3.0N.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

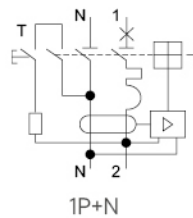
Residual Current Circuit Breaker with Overload Protection **SL6N,4.5kA**

Technical Data

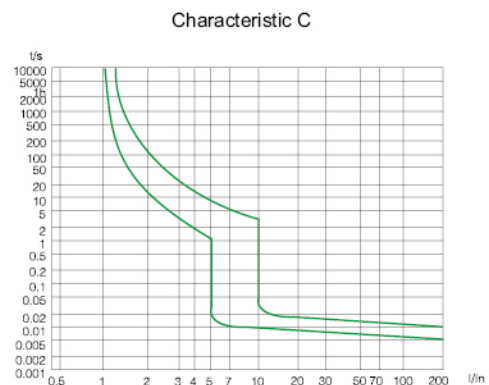
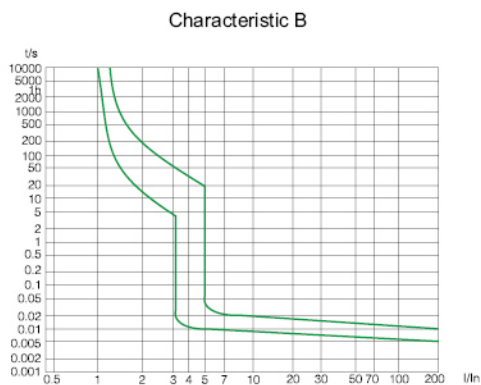
Dimensions



Wiring Diagrams

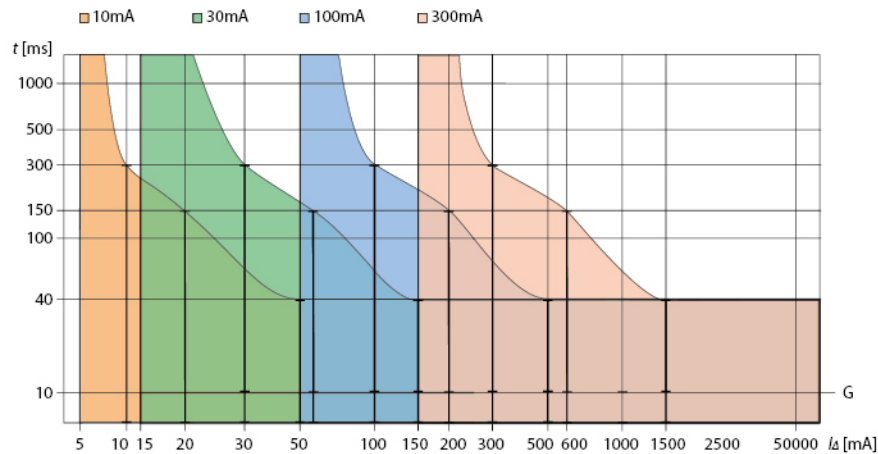


Tripping Characteristics of MCB



Technical Data

Tripping Characteristics of RCD



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	50 A	63 A	25 A	32 A	40 A	50 A	63 A
-20	8	13.5	17	20	24.5	29.8	39.5	50.5	62.0	79.2	30.0	39.2	49.2	62.0	79.2
-15	7.8	13.3	16.8	19.8	24.3	29.7	39.3	50.4	60.8	77.8	29.5	38.5	48.4	60.8	77.8
-10	7.6	13	16.5	19.5	24	29.5	39	50.2	59.8	76.3	29.0	37.9	47.5	59.8	76.3
-5	7.3	12.7	16.1	19.2	23.8	29.3	38.8	50	58.6	74.7	28.5	37.2	46.7	58.6	74.7
0	7.2	12.5	15.8	19.1	23.7	29.2	38.6	48.8	57.4	73.2	28.0	36.5	45.8	57.4	73.2
5	7	12.3	15.5	18.8	23.5	29	38.4	48.6	56.3	71.6	27.5	35.8	45.0	56.3	71.6
10	6.8	12.1	15.2	18.6	23.3	28.8	38.2	48.4	55.0	70.0	27.0	35.0	44.0	55.0	70.0
15	6.6	12	14.9	18.5	23.1	28.6	38	48.1	53.8	68.3	26.5	34.3	43.0	53.8	68.3
20	6.4	11.8	14.7	18.3	22.8	28.4	37.8	47.8	52.6	66.6	26.0	33.6	42.0	52.6	66.6
25	6.2	11.5	14.1	18	22.6	28.2	37.5	47	51.3	64.8	25.5	32.8	41.0	51.3	64.8
30	6	10	13	16	20	25	32	40	50	63	25	32	40	50	63
35	6	9.9	12.8	15.7	19.7	24.6	31.5	39.2	49.0	62.0	25.0	32.0	39.0	49.0	62.0
40	5.9	9.8	12.5	15.4	19.3	24.3	31.1	38.8	48.0	61.0	24.0	31.0	39.0	48.0	61.0
45	5.83	9.8	12.2	15.1	18.8	24	30.8	38.3	47.0	60.0	24.0	30.0	38.0	47.0	60.0
50	5.72	9.6	11.7	14.9	18.5	23.8	30.1	38	46.0	58.0	23.0	30.0	37.0	46.0	58.0
55	5.65	9.5	11.5	14.7	18.2	23.5	29.5	36.5	44.0	57.0	23.0	29.0	36.0	44.0	57.0
60	5.5	9	11.2	14.5	17.8	23	28.5	35	42.0	55.0	22.0	28.0	35.0	42.0	55.0
65	5.4	8.6	11	14	17.5	22	27.5	34	40.0	52.0	21.0	28.0	34.0	40.0	52.0
70	5.2	8	10.8	13.8	17.3	21.5	27	32.5	38.0	50.0	21.0	27.0	33.0	38.0	50.0

Residual Current Circuit Breaker with Overload Protection

SL6H,6kA

- Residual Current Circuit Breaker with Overload Protection according to IEC/EN 61009-1
- Electronic type
- Rated short circuit breaking capacity 6kA
- 1+N up to 4-pole versions
- Rated residual current 30, 100, 300mA
- Rated current up to 63A
- Rated operational voltage 230/400V AC
- AC type



SL6H 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.

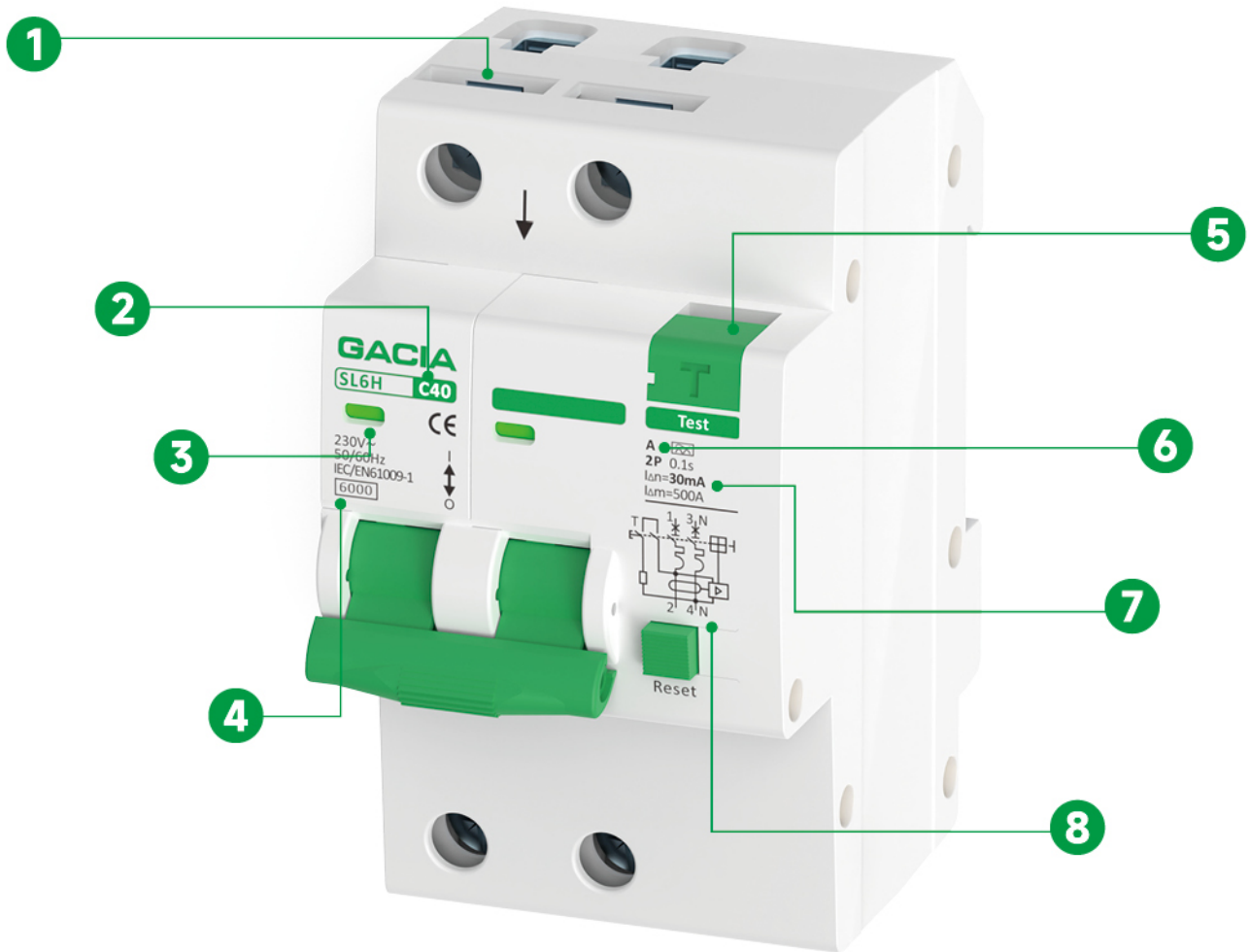
Type Key

S	L	6	H	2P	25A	30mA
Product series	Product category	Design code	Breaking capacity	Poles	Rated current	Rated residual current
Standard	RCBO	6	6kA	1N,2P,3N,4P	6-63A	30-300mA

Certification Marks



Product Tips



- | | |
|---|---|
| 1 Busbar interface | 5 Test button |
| 2 Rated current up to 63A | 6 Sensitivity to residual current A |
| 3 Contacts position indication window | 7 Variants from 30 to 300mA $I_{\Delta n}$ available |
| 4 Rated short circuit breaking capacity 6000A | 8 Electronic circuit diagram with overload protection |

Residual Current Circuit Breaker with Overload Protection **SL6H,6kA**

Technical Data

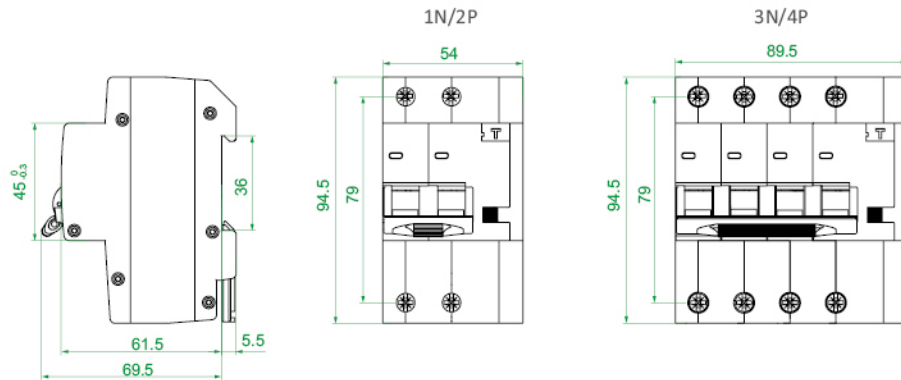
Electrical Features	
International standard	IEC/EN 61009-1
Poles	1P+N, 2P, 3P+N, 4P
Tripping characteristics of MCB	B, C, D
Rated current	6-63A
Rated residual current $I_{\Delta n}$	30, 100, 300mA
Residual current protection type	Electronic
Rated breaking capacity I_{cn}	6kA
Rated operational voltage U_e	230/400V AC
Sensitivity to residual current	AC type - AC residual 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	2-3.0N.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

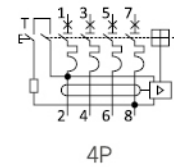
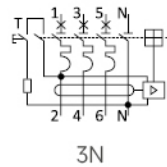
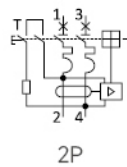
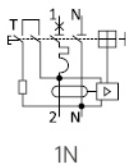


Technical Data

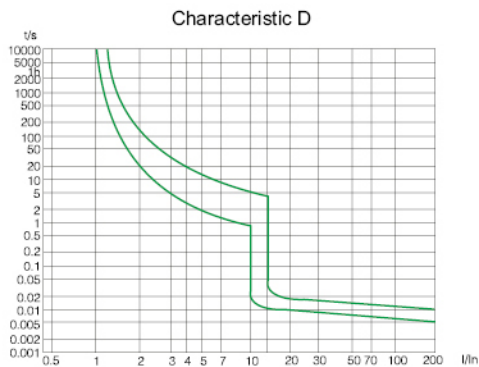
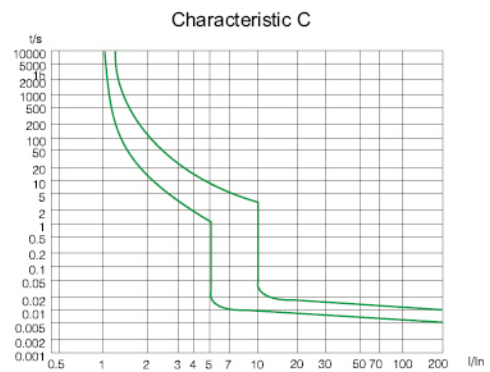
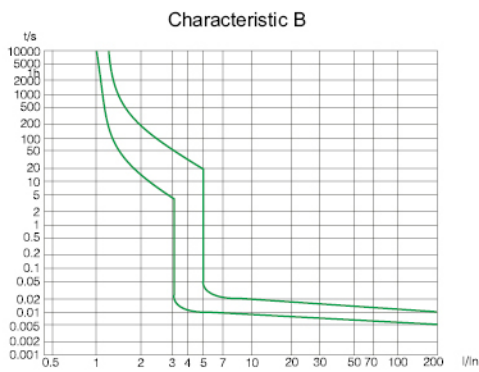
Dimensions



Wiring Diagrams



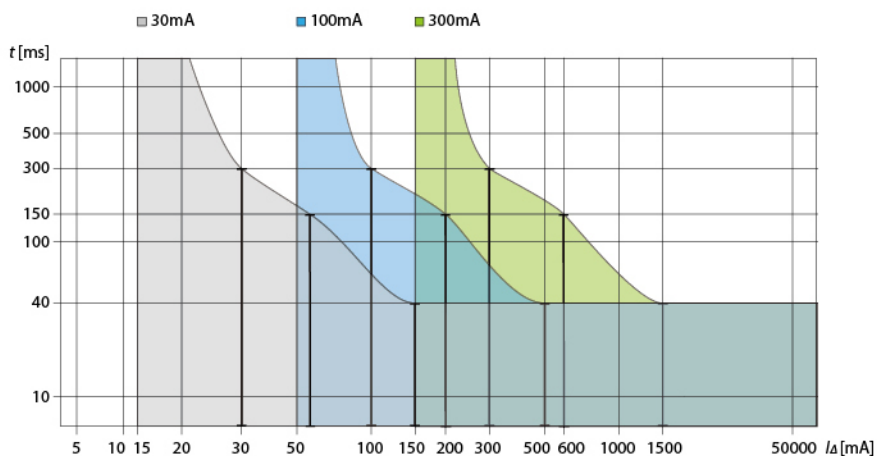
Tripping Characteristics of MCB



Residual Current Circuit Breaker with Overload Protection SL6H,6kA

Technical Data

Tripping Characteristics of RCD



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	50 A	63 A
-20	8	13.5	17	20	24.5	29.8	39.5	50.5	62.0	79.2
-15	7.8	13.3	16.8	19.8	24.3	29.7	39.3	50.4	60.8	77.8
-10	7.6	13	16.5	19.5	24	29.5	39	50.2	59.8	76.3
-5	7.3	12.7	16.1	19.2	23.8	29.3	38.8	50	58.6	74.7
0	7.2	12.5	15.8	19.1	23.7	29.2	38.6	48.8	57.4	73.2
5	7	12.3	15.5	18.8	23.5	29	38.4	48.6	56.3	71.6
10	6.8	12.1	15.2	18.6	23.3	28.8	38.2	48.4	55.0	70.0
15	6.6	12	14.9	18.5	23.1	28.6	38	48.1	53.8	68.3
20	6.4	11.8	14.7	18.3	22.8	28.4	37.8	47.8	52.6	66.6
25	6.2	11.5	14.1	18	22.6	28.2	37.5	47	51.3	64.8
30	6	10	13	16	20	25	32	40	50	63
35	6	9.9	12.8	15.7	19.7	24.6	31.5	39.2	49.0	62.0
40	5.9	9.8	12.5	15.4	19.3	24.3	31.1	38.8	48.0	61.0
45	5.83	9.8	12.2	15.1	18.8	24	30.8	38.3	47.0	60.0
50	5.72	9.6	11.7	14.9	18.5	23.8	30.1	38	46.0	58.0
55	5.65	9.5	11.5	14.7	18.2	23.5	29.5	36.5	44.0	57.0
60	5.5	9	11.2	14.5	17.8	23	28.5	35	42.0	55.0
65	5.4	8.6	11	14	17.5	22	27.5	34	40.0	52.0
70	5.2	8	10.8	13.8	17.3	21.5	27	32.5	38.0	50.0

Residual Current Circuit Breaker with Overload Protection SH6H,6kA

Residual Current Circuit Breaker with Overload Protection according to IEC/EN 61009-1

Electronic type

Rated short circuit breaking capacity 6kA

1+N up to 4-pole versions

Rated residual current 30, 100, 300mA

Rated current up to 125A

Rated operational voltage 230/400V AC

AC type



SH6H 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

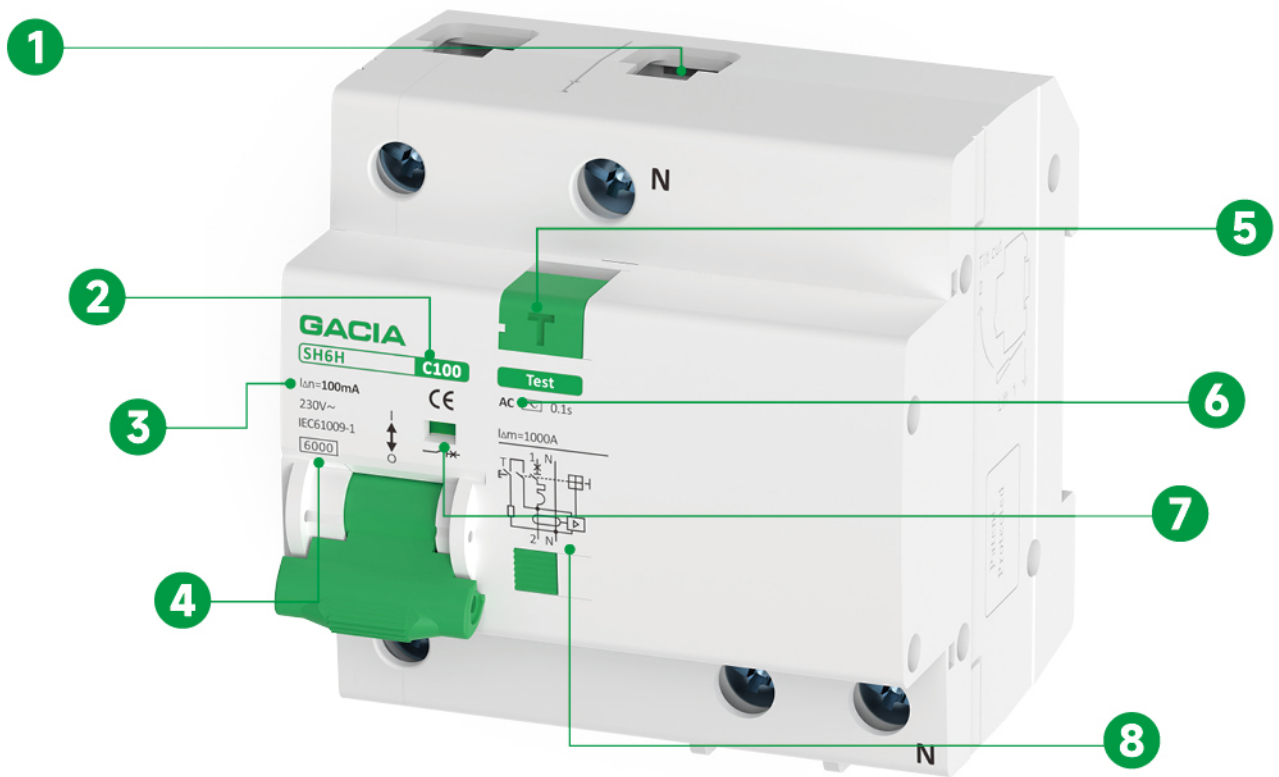
S	H	6	H	2P	25A	30mA
Product series	Product category	Design code	Breaking capacity	Poles	Rated current	Rated residual current
Standard	RCBO	6	6kA	1N,2P,3P,3N,4P	63-125A	30-300mA

Certification Marks



Residual Current Circuit Breaker with Overload Protection **SH6H,6kA**

Product Tips



- 1 Neutral line interface
- 2 Rated current up to 125A
- 3 Variants from 30 to 300mA $I_{\Delta n}$ available
- 4 Rated short circuit breaking capacity 6000A
- 5 Test button
- 6 Sensitivity to residual current AC
- 7 Contacts position indication window
- 8 Electronic circuit diagram with overload protection

Technical Data

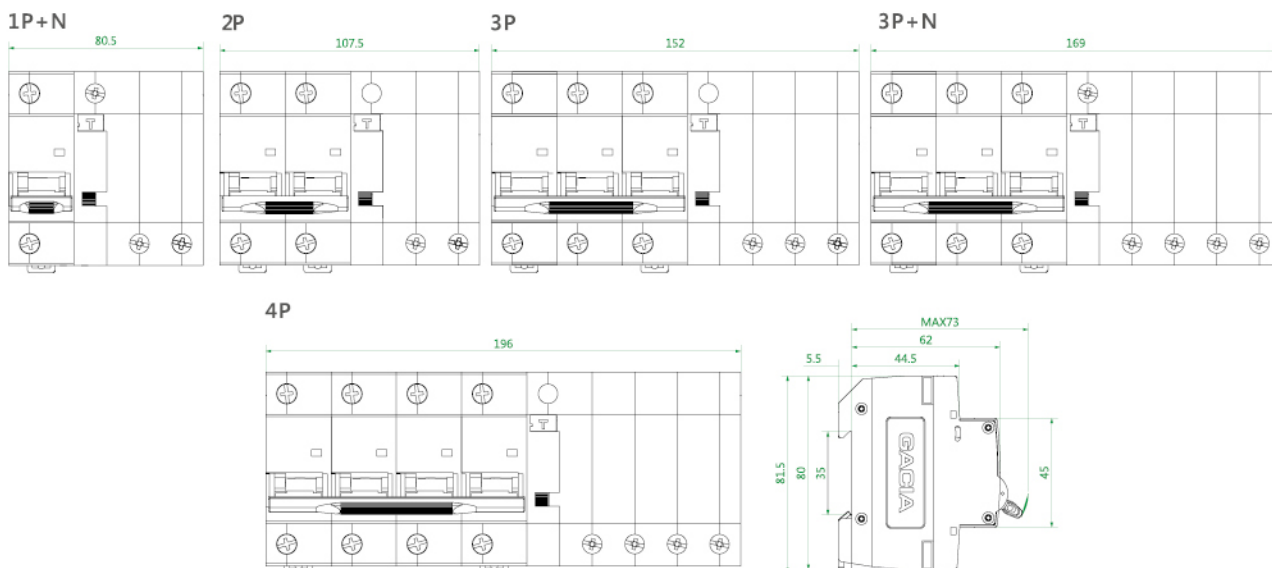
Electrical Features	
International standard	IEC/EN 61009-1
Poles	1P+N, 2P, 3P, 3P+N, 4P
Tripping characteristics of MCB	8-12In
Rated current	63-125A
Rated residual current $I_{\Delta n}$	30, 100, 300mA
Residual current protection type	Electronic
Rated breaking capacity I_{cn}	6kA
Rated operational voltage U_e	230/400V AC
Sensitivity to residual current	AC type - AC residual 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
Connectable conductor cross section	16-50mm ²
Mounting	IEC/EN 60715 top-hat rail 35mm
Fastening torque of terminals	2-3.5N.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

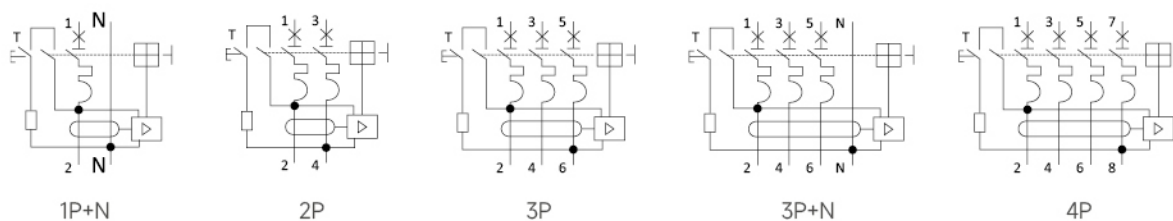
Residual Current Circuit Breakers with Overload Protection **SH6H,6kA**

Technical Data

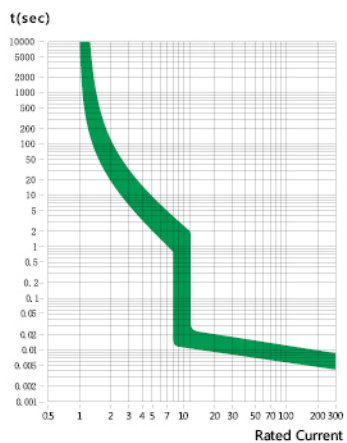
Dimensions



Wiring Diagrams

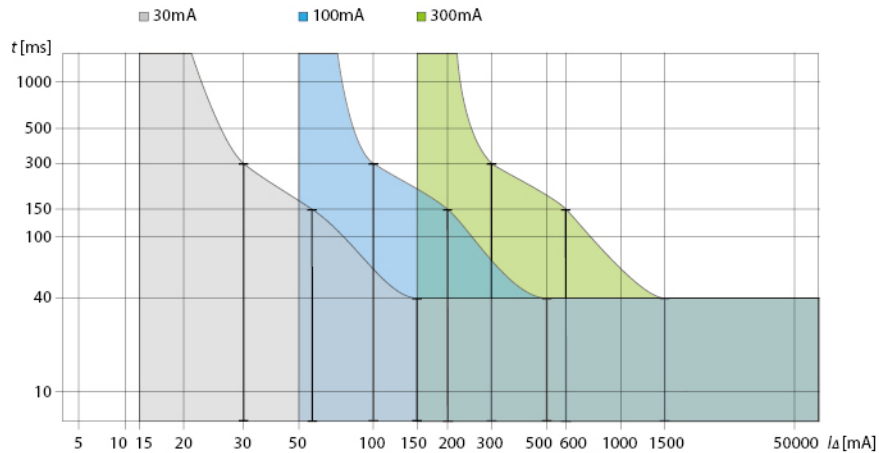


Tripping Characteristics of MCB



Technical Data

Tripping Characteristics of RCD



Dependence of Tripping Characteristics on Ambient Temperature

T [°C]	I _n (T) [A]								
	16 A	20 A	25 A	32 A	40 A	50 A	63 A	80 A	100 A
-30	20.5	25.3	31.1	40.5	51.3	64.2	82.1	105.2	132.6
-20	19.8	24.5	30.2	39.2	49.2	62.4	79.2	103.1	129.8
-10	19.0	23.7	29.6	37.9	47.5	59.8	76.3	99.1	124.0
0	18.4	22.8	28.2	36.5	45.8	57.4	73.2	94.9	118.1
10	17.6	21.9	27.7	35.0	44.3	55.4	70.0	90.3	113.3
20	16.8	21.0	26.1	33.6	42.0	52.6	66.6	86.7	108.2
30	16	20	25	32	40	50	63	80	100
40	15.4	19.3	24.5	31.4	39.2	48.7	61.6	75.8	94.2
50	15.0	18.8	23.2	30.9	37.6	46.2	58.8	71.3	89.6
60	14.2	18.1	22.1	28.6	35.8	42.6	55.4	67.9	85.1
70	13.5	17.7	20.6	27.5	33.1	38.3	50.5	66.3	82.2

MCB Accessories

Accessories for installation devices SB6NZ, SB6HS, SB6L, SB6LC

Auxiliary contacts synchronous with main contacts of the device

Signal contacts active on electrical tripping of the circuit breaker

Shunt release

Undervoltage release

Overvoltage release

According to IEC/EN 60947-1 and IEC/EN 60947-5-1



Accessories are designed in the way to be possible to combine different types with one installation device. It can be used up to two releases plus up to two units of auxiliary or signal contacts.

Release units are mounted from the right to the installation device. Auxiliary and signal contact units must be mounted from the right to the device or to the release unit(s) when installed.

Type Key

AUX6	ALT6	SHT6	SHTA6	UVT6	OVT6	OUVT6
Auxiliary contact	Alarm contact	Shunt release	Shunt release + AUX	Undervoltage release	Overvoltage release	OVT+UVT
AUX6	ALT6	SHT6	SHTA6	UVT6	OVT6	OUVT6

Combination of MCB Accessories



Auxiliary Contact

■ Function

Indicating the on/off state of circuit breaker.

■ Application

Distant indication of circuit breaker state.



Order Code		AUX6
Voltage Ue	AC	230/400V
	DC	120V
Rated Frequency		50/60Hz
Red Mechanical Indication		-
Testing Function		No
Working Current	230V AC 6A	
	400V AC 3A	
	120V DC 1A	
Contact Number		1NO/NC
Working Temperature		-35~+70°C

Wiring Diagrams

Alarm Contact

■ Function

-Sending signal at the time of fault tripping of circuit breaker.

-On the front panel, there is mechanical indication which can indicate fault tripping.

■ Application

Sending signals at the time of fault tripping.



Order Code		ALT6
Voltage Ue	AC	230/400V
	DC	120V
Rated Frequency		50/60Hz
Red Mechanical Indication		Yes
Testing Function		Yes
Working Current	230V AC 6A	
	400V AC 3A	
	120V DC 1A	
Contact Number		1NO/NC
Working Temperature		-35~+70°C

Wiring Diagrams

MCB Accessories

Shunt Release

■ Function

When it gets signal, it triggers the circuit breaker to trip.

■ Application

- Distant control can achieve emergency breaking.
- Distant indication of circuit breaker state.



Order Code	SHT6-230	SHT6-48	SHT6-12/24
Voltage Ue	AC	230/400V	48V
	DC	120V	48V
Rated Frequency	50/60Hz		
Red Mechanical Indication	Yes		
Testing Function	-		
Working Current	-		
Contact Number	-		
Working Temperature	-35~+70°C		

Wiring Diagrams



Shunt Release+Aux

■ Function

- When it gets signal, it triggers the circuit breaker to trip.
- SHTA6: It includes a condition indication contact to indicate the on/off state of circuit breaker.

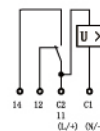
■ Application

- Distant control can achieve emergency breaking.
- Distant indication of circuit breaker state.



Order Code	SHTA6-230	SHTA6-48	SHTA6-12/24
Voltage Ue	AC	230/400V	48V
	DC	120V	48V
Rated Frequency	50/60Hz		
Red Mechanical Indication	Yes		
Testing Function	-		
Working Current	230V AC 6A		
	400V AC 3A		
	120V AC 1A		
Contact Number	1NO/NC		
Working Temperature	-35~+70°C		

Wiring Diagrams



Undervoltage Release

■ Function

-When power voltage lowers(35%~70%Un), it makes circuit breaker trip;When power is not supplied normally, it prevents circuit breaker from reconnecting to the circuit.

-0.2S time delay prevents the temporary lowering of voltage from causing mistrrip.

■ Application

Preventing machine from restarting without control signal, ensuring safety.



Order Code		UVT6-230	UVT6-230S
Voltage Ue	AC	230V	230V
	DC	-	-
Rated Frequency		50/60Hz	
Red Mechanical Indication		Yes	
Testing Function		-	
Working Current		-	
Contact Number		-	
Working Temperature		-35~+70°C	

Wiring Diagrams



Overvoltage Release

■ Function

Monitor voltage between phase line and neutral line, When voltage rises(for example, neutral line is broken), it triggers circuit breaker to trip.

Rated tripping voltage range: 270V AC±10%

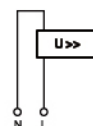
■ Application

Preventing over-voltage from damaging circuit and equipment.



Order Code		OVT6-230
Voltage Ue	AC	230V
	DC	-
Rated Frequency		50/60Hz
Red Mechanical Indication		Yes
Testing Function		-
Working Current		-
Contact Number		-
Working Temperature		-35~+70°C

Wiring Diagrams



MCB Accessories

Over&Under-Voltage Release

■ Function

-It has function of over-voltage release, and function of making circuit breaker trip when power voltage lowers.

-Rated tripping voltage range: 265V AC±10%.

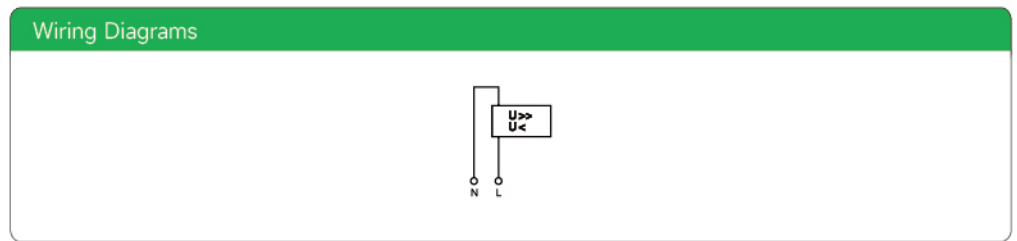
-Rated under-voltage tripping range: 165±10V.

■ Application

Preventing over-voltage and under-voltage from damaging circuit and equipment.

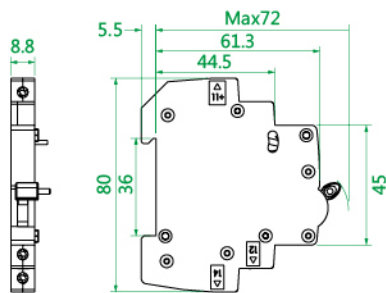


Order Code		OUVT6-230
Voltage Ue	AC	230V
	DC	-
Rated Frequency	50/60Hz	
Red Mechanical Indication	Yes	
Testing Function	-	
Working Current	-	
Contact Number	-	
Working Temperature	-35~+70°C	

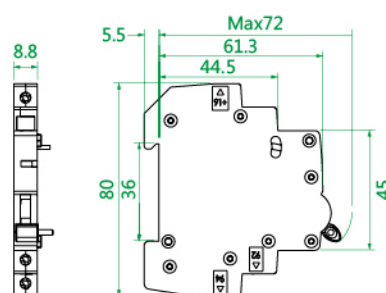


Accessories Dimensions

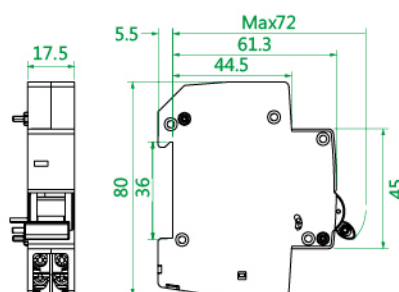
AUX6



ALT6



SHT6/SHTA6/UVT6/OVT6/OUVT6





GACIA

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