SGBR-63M/H Series
(Electronic/Electro-magnetic)
Residual Current Operated Circuit Breaker(RCBO)

Technical data

Standard		EN/IEC61009-1
Breaking capacity		6kA ,10kA
Protection		Ground fault, overcurrent and short circuit
Rated current,In		6,10,13, 16,20,25,32,40A,50A,63A
Operating,I△n		10,30,100,300mA
Characteristic		B,C Curve
Rated residual current operated making & breaking capacity I△m		500A
Rated residual non-operated current I△n		0.5I△n
Rated impulse withstand voltage Uimp		4kV
Number of poles		1P+N
Rated voltages 2pole		240VAC
Ambient temperature (°C)		-25~+40,Max. 95%humidity
Residual current off-time		⩽0.1 sec
Type of trip	**Ground fault**	Electronic/Electro-magnetic
	Over current	Thermal-magnetic
Protection degree		IP20
Terminal capacity		16mm² flexible/25mm² rigid
Installation		35mm DIN rail
Width		2 modules
Type of terminal		Lug type and Pin type

SGBR-63M

SGBR-63H

Type AC

Type A

SGBR-63M-RCBO	Rated current(A)	$I_{\triangle}n$	Type AC		Type A		Packing unit
			B curve	C curve	B curve	C curve	
	6	10mA	SGBR-63M-B6/10	SGBR-63M-C6/10	SGBR-63M-B6/10-A	SGBR-63M-C6/10-A	1
	10		SGBR-63M-B10/10	SGBR-63M-C10/10	SGBR-63M-B10/10-A	SGBR-63M-C10/10-A	1
	13		SGBR-63M-B13/10	SGBR-63M-C13/10	SGBR-63M-B13/10-A	SGBR-63M-C13/10-A	1
	16		SGBR-63M-B16/10	SGBR-63M-C16/10	SGBR-63M-B16/10-A	SGBR-63M-C16/10-A	1
	20		SGBR-63M-B20/10	SGBR-63M-C20/10	SGBR-63M-B20/10-A	SGBR-63M-C20/10-A	1
	25		SGBR-63M-B25/10	SGBR-63M-C25/10	SGBR-63M-B25/10-A	SGBR-63M-C25/10-A	1
	32		SGBR-63M-B32/10	SGBR-63M-C32/10	SGBR-63M-B32/10-A	SGBR-63M-C32/10-A	1
	40		SGBR-63M-B40/10	SGBR-63M-C40/10	SGBR-63M-B40/10-A	SGBR-63M-C40/10-A	1
	50		SGBR-63M-B50/10	SGBR-63M-C50/10	SGBR-63M-B50/10-A	SGBR-63M-C50/10-A	1
	63		SGBR-63M-B63/10	SGBR-63M-C63/10	SGBR-63M-B63/10-A	SGBR-63M-C63/10-A	1
	6	30mA	SGBR-63M-B6/30	SGBR-63M-C6/30	SGBR-63M-B6/30-A	SGBR-63M-C6/30-A	1
	10		SGBR-63M-B10/30	SGBR-63M-C10/30	SGBR-63M-B10/30-A	SGBR-63M-C10/30-A	1
	13		SGBR-63M-B13/30	SGBR-63M-C13/30	SGBR-63M-B13/30-A	SGBR-63M-C13/30-A	1
	16		SGBR-63M-B16/30	SGBR-63M-C16/30	SGBR-63M-B16/30-A	SGBR-63M-C16/30-A	1
	20		SGBR-63M-B20/30	SGBR-63M-C20/30	SGBR-63M-B20/30-A	SGBR-63M-C20/30-A	1
	25		SGBR-63M-B25/30	SGBR-63M-C25/30	SGBR-63M-B25/30-A	SGBR-63M-C25/30-A	1
	32		SGBR-63M-B32/30	SGBR-63M-C32/30	SGBR-63M-B32/30-A	SGBR-63M-C32/30-A	1
	40		SGBR-63M-B40/30	SGBR-63M-C40/30	SGBR-63M-B40/30-A	SGBR-63M-C40/30-A	1
	50		SGBR-63M-B50/30	SGBR-63M-C50/30	SGBR-63M-B50/30-A	SGBR-63M-C50/30-A	1
	63		SGBR-63M-B63/30	SGBR-63M-C63/30	SGBR-63M-B63/30-A	SGBR-63M-C63/30-A	1
	6	100mA	SGBR-63M-B6/100	SGBR-63M-C6/100	SGBR-63M-B6/100-A	SGBR-63M-C6/100-A	1
	10		SGBR-63M-B10/100	SGBR-63M-C10/100	SGBR-63M-B10/100-A	SGBR-63M-C10/100-A	1
	13		SGBR-63M-B13/100	SGBR-63M-C13/100	SGBR-63M-B13/100-A	SGBR-63M-C13/100-A	1
	16		SGBR-63M-B16/100	SGBR-63M-C16/100	SGBR-63M-B16/100-A	SGBR-63M-C16/100-A	1
	20		SGBR-63M-B20/100	SGBR-63M-C20/100	SGBR-63M-B20/100-A	SGBR-63M-C20/100-A	1
	25		SGBR-63M-B25/100	SGBR-63M-C25/100	SGBR-63M-B25/100-A	SGBR-63M-C25/100-A	1
	32		SGBR-63M-B32/100	SGBR-63M-C32/100	SGBR-63M-B32/100-A	SGBR-63M-C32/100-A	1
	40		SGBR-63M-B40/100	SGBR-63M-C40/100	SGBR-63M-B40/100-A	SGBR-63M-C40/100-A	1
	50		SGBR-63M-B50/100	SGBR-63M-C50/100	SGBR-63M-B50/100-A	SGBR-63M-C50/100-A	1
	63		SGBR-63M-B63/100	SGBR-63M-C63/100	SGBR-63M-B63/100-A	SGBR-63M-C63/100-A	1
	6	300mA	SGBR-63M-B6/300	SGBR-63M-C6/300	SGBR-63M-B6/300-A	SGBR-63M-C6/300-A	1
	10		SGBR-63M-B10/300	SGBR-63M-C10/300	SGBR-63M-B10/300-A	SGBR-63M-C10/300-A	1
	13		SGBR-63M-B13/300	SGBR-63M-C13/300	SGBR-63M-B13/300-A	SGBR-63M-C13/300-A	1
	16		SGBR-63M-B16/300	SGBR-63M-C16/300	SGBR-63M-B16/300-A	SGBR-63M-C16/300-A	1
	20		SGBR-63M-B20/300	SGBR-63M-C20/300	SGBR-63M-B20/300-A	SGBR-63M-C20/300-A	1
	25		SGBR-63M-B25/300	SGBR-63M-C25/300	SGBR-63M-B25/300-A	SGBR-63M-C25/300-A	1
	32		SGBR-63M-B32/300	SGBR-63M-C32/300	SGBR-63M-B32/300-A	SGBR-63M-C32/300-A	1
	40		SGBR-63M-B40/300	SGBR-63M-C40/300	SGBR-63M-B40/300-A	SGBR-63M-C40/300-A	1
	50		SGBR-63M-B50/300	SGBR-63M-C50/300	SGBR-63M-B50/300-A	SGBR-63M-C50/300-A	1
	63		SGBR-63M-B63/300	SGBR-63M-C63/300	SGBR-63M-B63/300-A	SGBR-63M-C63/300-A	1

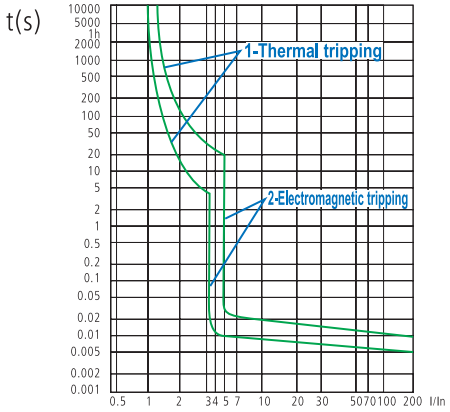
SGBR-63H-RCBO

Type AC

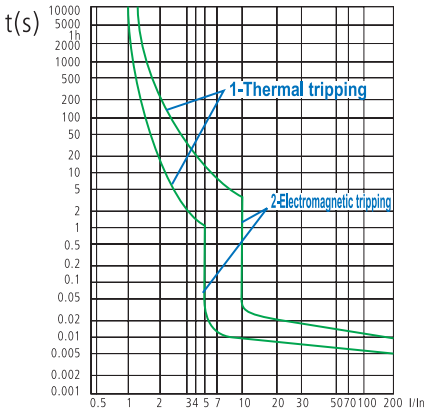
Type A

Rated current(A)	$I_{\triangle}n$	Type AC		Type A		Packing unit
		B curve	C curve	B curve	C curve	
6	10mA	SGBR-63H-B6/10	SGBR-63H-C6/10	SGBR-63H-B6/10-A	SGBR-63H-C6/10-A	1
10		SGBR-63H-B10/10	SGBR-63H-C10/10	SGBR-63H-B10/10-A	SGBR-63H-C10/10-A	1
13		SGBR-63H-B13/10	SGBR-63H-C13/10	SGBR-63H-B13/10-A	SGBR-63H-C13/10-A	1
16		SGBR-63H-B16/10	SGBR-63H-C16/10	SGBR-63H-B16/10-A	SGBR-63H-C16/10-A	1
20		SGBR-63H-B20/10	SGBR-63H-C20/10	SGBR-63H-B20/10-A	SGBR-63H-C20/10-A	1
25		SGBR-63H-B25/10	SGBR-63H-C25/10	SGBR-63H-B25/10-A	SGBR-63H-C25/10-A	1
32		SGBR-63H-B32/10	SGBR-63H-C32/10	SGBR-63H-B32/10-A	SGBR-63H-C32/10-A	1
40		SGBR-63H-B40/10	SGBR-63H-C40/10	SGBR-63H-B40/10-A	SGBR-63H-C40/10-A	1
50		SGBR-63H-B50/10	SGBR-63H-C50/10	SGBR-63H-B50/10-A	SGBR-63H-C50/10-A	1
63		SGBR-63H-B63/10	SGBR-63H-C63/10	SGBR-63H-B63/10-A	SGBR-63H-C63/10-A	1
6	30mA	SGBR-63H-B6/30	SGBR-63H-C6/30	SGBR-63H-B6/30-A	SGBR-63H-C6/30-A	1
10		SGBR-63H-B10/30	SGBR-63H-C10/30	SGBR-63H-B10/30-A	SGBR-63H-C10/30-A	1
13		SGBR-63H-B13/30	SGBR-63H-C13/30	SGBR-63H-B13/30-A	SGBR-63H-C13/30-A	1
16		SGBR-63H-B16/30	SGBR-63H-C16/30	SGBR-63H-B16/30-A	SGBR-63H-C16/30-A	1
20		SGBR-63H-B20/30	SGBR-63H-C20/30	SGBR-63H-B20/30-A	SGBR-63H-C20/30-A	1
25		SGBR-63H-B25/30	SGBR-63H-C25/30	SGBR-63H-B25/30-A	SGBR-63H-C25/30-A	1
32		SGBR-63H-B32/30	SGBR-63H-C32/30	SGBR-63H-B32/30-A	SGBR-63H-C32/30-A	1
40		SGBR-63H-B40/30	SGBR-63H-C40/30	SGBR-63H-B40/30-A	SGBR-63H-C40/30-A	1
50		SGBR-63H-B50/30	SGBR-63H-C50/30	SGBR-63H-B50/30-A	SGBR-63H-C50/30-A	1
63		SGBR-63H-B63/30	SGBR-63H-C63/30	SGBR-63H-B63/30-A	SGBR-63H-C63/30-A	1
6	100mA	SGBR-63H-B6/100	SGBR-63H-C6/100	SGBR-63H-B6/100-A	SGBR-63H-C6/100-A	1
10		SGBR-63H-B10/100	SGBR-63H-C10/100	SGBR-63H-B10/100-A	SGBR-63H-C10/100-A	1
13		SGBR-63H-B13/100	SGBR-63H-C13/100	SGBR-63H-B13/100-A	SGBR-63H-C13/100-A	1
16		SGBR-63H-B16/100	SGBR-63H-C16/100	SGBR-63H-B16/100-A	SGBR-63H-C16/100-A	1
20		SGBR-63H-B20/100	SGBR-63H-C20/100	SGBR-63H-B20/100-A	SGBR-63H-C20/100-A	1
25		SGBR-63H-B25/100	SGBR-63H-C25/100	SGBR-63H-B25/100-A	SGBR-63H-C25/100-A	1
32		SGBR-63H-B32/100	SGBR-63H-C32/100	SGBR-63H-B32/100-A	SGBR-63H-C32/100-A	1
40		SGBR-63H-B40/100	SGBR-63H-C40/100	SGBR-63H-B40/100-A	SGBR-63H-C40/100-A	1
50		SGBR-63H-B50/100	SGBR-63H-C50/100	SGBR-63H-B50/100-A	SGBR-63H-C50/100-A	1
63		SGBR-63H-B63/100	SGBR-63H-C63/100	SGBR-63H-B63/100-A	SGBR-63H-C63/100-A	1
6	300mA	SGBR-63H-B6/300	SGBR-63H-C6/300	SGBR-63H-B6/300-A	SGBR-63H-C6/300-A	1
10		SGBR-63H-B10/300	SGBR-63H-C10/300	SGBR-63H-B10/300-A	SGBR-63H-C10/300-A	1
13		SGBR-63H-B13/300	SGBR-63H-C13/300	SGBR-63H-B13/300-A	SGBR-63H-C13/300-A	1
16		SGBR-63H-B16/300	SGBR-63H-C16/300	SGBR-63H-B16/300-A	SGBR-63H-C16/300-A	1
20		SGBR-63H-B20/300	SGBR-63H-C20/300	SGBR-63H-B20/300-A	SGBR-63H-C20/300-A	1
25		SGBR-63H-B25/300	SGBR-63H-C25/300	SGBR-63H-B25/300-A	SGBR-63H-C25/300-A	1
32		SGBR-63H-B32/300	SGBR-63H-C32/300	SGBR-63H-B32/300-A	SGBR-63H-C32/300-A	1
40		SGBR-63H-B40/300	SGBR-63H-C40/300	SGBR-63H-B40/300-A	SGBR-63H-C40/300-A	1
50		SGBR-63H-B50/300	SGBR-63H-C50/300	SGBR-63H-B50/300-A	SGBR-63H-C50/300-A	1
63		SGBR-63H-B63/300	SGBR-63H-C63/300	SGBR-63H-B63/300-A	SGBR-63H-C63/300-A	1

1. Curves



B type



C type

2. Wiring

The suitable conductors should be used for connection,see table below for relative parameters.

Rated current In (A)	Cross section area s (mm^2)	Tightening torque (N.m)
6	1	2
10	1.5	2
13	1.5	2
16-20	2.5	2
25	4	2
32	6	2
40	10	2
63	16	2

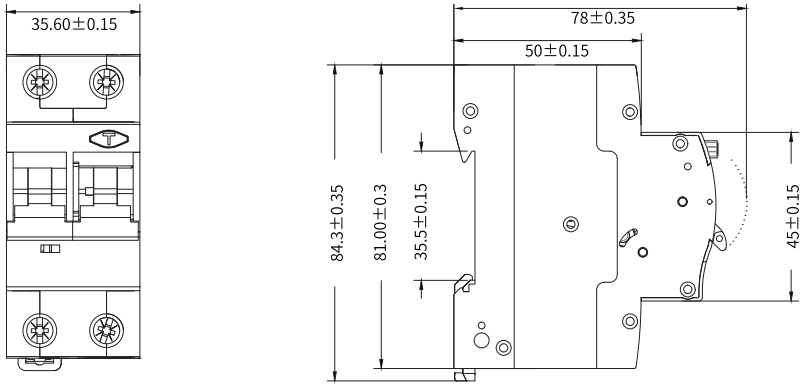
3. Types

Both RCCBs and RCBOs are devided into types depending on the operating function:
Type AC ⏦: For which tripping is ensured for residual sinusoidal alternating currents, whether suddenly applied or slowly rising.
Type A ⏦ : For which tripping is ensued for residual sinusoidal alternating currents and residual pulsating direct currents, whether suddenly applied or slowly rising.

4. Tripping sensitivity data

RCD with a rated residual current of maximum 30mA are used for personnel,material and fire protection, as well as for protection against direct contact.
RCD with a rated residual current of maximum 300mA are used as preventative fire protection in case of insulation faults.
RCD with a rated residual current of 100mA co-ordinated with the earth system according to the formula I△n<50/R, to provide protection again indirect contacts.

5. Overall and mounting dimensions



SGBR-63M/H