

SGBRi Series (Electronic) Residual Current Operated Circuit Breaker(RCBO)

Technical data

Standard	EN/ IEC61009-1
Breaking Capacity	6kA,10kA
Number of poles	1 P+N(1 module)
Rated current,In	6, 10, 13, 16, 20, 25, 32, 40A
Rated voltage	240VAC
Rated Tripping Current	10,30,100,300mA
Residual current off time	≤0.1s
Characteristic	B,C Curve
Electrical endurance	4000
Mechanical endurance	10000
Ambient temperature (°C)	-25~+40, Max. 95%humidity
Connection terminal	Flexible conductor 16mm ² Rigid conductor 25mm ²
Type of terminal	Lug type and Pin type
Width	17.8mm







Intertek



SGBRi-6K



SGBRi-10K







SGBRi-6K RCBO	Rated current(A)	$I_{\Delta n}$	Type AC 		Type A 		Packing unit
			B curve	C curve	B curve	C curve	
	10mA	6	SGBRi-6K/B6/10	SGBRi-6K/C6/10	SGBRi-6K/B6/10-A	SGBRi-6K/C6/10-A	5
		10	SGBRi-6K/B10/10	SGBRi-6K/C10/10	SGBRi-6K/B10/10-A	SGBRi-6K/C10/10-A	5
		13	SGBRi-6K/B13/10	SGBRi-6K/C13/10	SGBRi-6K/B13/10-A	SGBRi-6K/C13/10-A	5
		16	SGBRi-6K/B16/10	SGBRi-6K/C16/10	SGBRi-6K/B16/10-A	SGBRi-6K/C16/10-A	5
		20	SGBRi-6K/B20/10	SGBRi-6K/C20/10	SGBRi-6K/B20/10-A	SGBRi-6K/C20/10-A	5
		25	SGBRi-6K/B25/10	SGBRi-6K/C25/10	SGBRi-6K/B25/10-A	SGBRi-6K/C25/10-A	5
		32	SGBRi-6K/B32/10	SGBRi-6K/C32/10	SGBRi-6K/B32/10-A	SGBRi-6K/C32/10-A	5
		40	SGBRi-6K/B40/10	SGBRi-6K/C40/10	SGBRi-6K/B40/10-A	SGBRi-6K/C40/10-A	5
	30mA	6	SGBRi-6K/B6/30	SGBRi-6K/C6/30	SGBRi-6K/B6/30-A	SGBRi-6K/C6/30-A	5
		10	SGBRi-6K/B10/30	SGBRi-6K/C10/30	SGBRi-6K/B10/30-A	SGBRi-6K/C10/30-A	5
		13	SGBRi-6K/B13/30	SGBRi-6K/C13/30	SGBRi-6K/B13/30-A	SGBRi-6K/C13/30-A	5
		16	SGBRi-6K/B16/30	SGBRi-6K/C16/30	SGBRi-6K/B16/30-A	SGBRi-6K/C16/30-A	5
		20	SGBRi-6K/B20/30	SGBRi-6K/C20/30	SGBRi-6K/B20/30-A	SGBRi-6K/C20/30-A	5
		25	SGBRi-6K/B25/30	SGBRi-6K/C25/30	SGBRi-6K/B25/30-A	SGBRi-6K/C25/30-A	5
	100mA	6	SGBRi-6K/B6/100	SGBRi-6K/C6/100	SGBRi-6K/B6/100-A	SGBRi-6K/C6/100-A	5
		10	SGBRi-6K/B10/100	SGBRi-6K/C10/100	SGBRi-6K/B10/100-A	SGBRi-6K/C10/100-A	5
		13	SGBRi-6K/B13/100	SGBRi-6K/C13/100	SGBRi-6K/B13/100-A	SGBRi-6K/C13/100-A	5
		16	SGBRi-6K/B16/100	SGBRi-6K/C16/100	SGBRi-6K/B16/100-A	SGBRi-6K/C16/100-A	5
		20	SGBRi-6K/B20/100	SGBRi-6K/C20/100	SGBRi-6K/B20/100-A	SGBRi-6K/C20/100-A	5
		25	SGBRi-6K/B25/100	SGBRi-6K/C25/100	SGBRi-6K/B25/100-A	SGBRi-6K/C25/100-A	5
		32	SGBRi-6K/B32/100	SGBRi-6K/C32/100	SGBRi-6K/B32/100-A	SGBRi-6K/C32/100-A	5
		40	SGBRi-6K/B40/100	SGBRi-6K/C40/100	SGBRi-6K/B40/100-A	SGBRi-6K/C40/100-A	5
	300mA	6	SGBRi-6K/B6/300	SGBRi-6K/C6/300	SGBRi-6K/B6/300-A	SGBRi-6K/C6/300-A	5
		10	SGBRi-6K/B10/300	SGBRi-6K/C10/300	SGBRi-6K/B10/300-A	SGBRi-6K/C10/300-A	5
		13	SGBRi-6K/B13/300	SGBRi-6K/C13/300	SGBRi-6K/B13/300-A	SGBRi-6K/C13/300-A	5
		16	SGBRi-6K/B16/300	SGBRi-6K/C16/300	SGBRi-6K/B16/300-A	SGBRi-6K/C16/300-A	5
		20	SGBRi-6K/B20/300	SGBRi-6K/C20/300	SGBRi-6K/B20/300-A	SGBRi-6K/C20/300-A	5
		25	SGBRi-6K/B25/300	SGBRi-6K/C25/300	SGBRi-6K/B25/300-A	SGBRi-6K/C25/300-A	5

Type AC

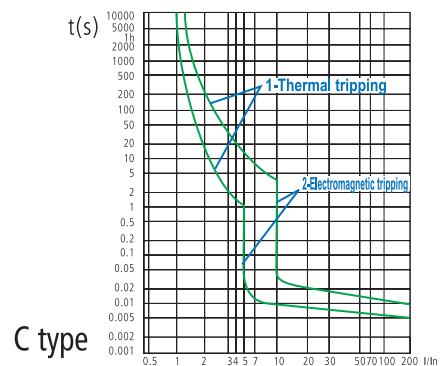
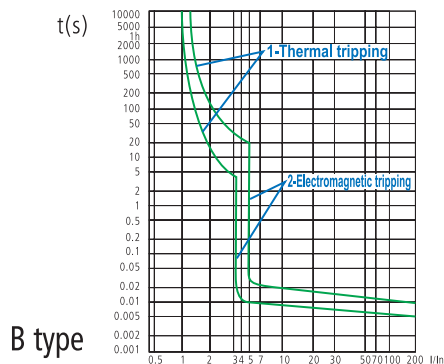


Type A



SGBRi-10K RCBO	Rated current(A)	$I_{\Delta n}$	Type AC 		Type A 		Packing unit
			B curve	C curve	B curve	C curve	
	10mA	6	SGBRi-10K/B6/10	SGBRi-10K/C6/10	SGBRi-10K/B6/10-A	SGBRi-10K/C6/10-A	5
		10	SGBRi-10K/B10/10	SGBRi-10K/C10/10	SGBRi-10K/B10/10-A	SGBRi-10K/C10/10-A	5
		13	SGBRi-10K/B13/10	SGBRi-10K/C13/10	SGBRi-10K/B13/10-A	SGBRi-10K/C13/10-A	5
		16	SGBRi-10K/B16/10	SGBRi-10K/C16/10	SGBRi-10K/B16/10-A	SGBRi-10K/C16/10-A	5
		20	SGBRi-10K/B20/10	SGBRi-10K/C20/10	SGBRi-10K/B20/10-A	SGBRi-10K/C20/10-A	5
		25	SGBRi-10K/B25/10	SGBRi-10K/C25/10	SGBRi-10K/B25/10-A	SGBRi-10K/C25/10-A	5
		32	SGBRi-10K/B32/10	SGBRi-10K/C32/10	SGBRi-10K/B32/10-A	SGBRi-10K/C32/10-A	5
		40	SGBRi-10K/B40/10	SGBRi-10K/C40/10	SGBRi-10K/B40/10-A	SGBRi-10K/C40/10-A	5
Type AC 	30mA	6	SGBRi-10K/B6/30	SGBRi-10K/C6/30	SGBRi-10K/B6/30-A	SGBRi-10K/C6/30-A	5
		10	SGBRi-10K/B10/30	SGBRi-10K/C10/30	SGBRi-10K/B10/30-A	SGBRi-10K/C10/30-A	5
		13	SGBRi-10K/B13/30	SGBRi-10K/C13/30	SGBRi-10K/B13/30-A	SGBRi-10K/C13/30-A	5
		16	SGBRi-10K/B16/30	SGBRi-10K/C16/30	SGBRi-10K/B16/30-A	SGBRi-10K/C16/30-A	5
		20	SGBRi-10K/B20/30	SGBRi-10K/C20/30	SGBRi-10K/B20/30-A	SGBRi-10K/C20/30-A	5
		25	SGBRi-10K/B25/30	SGBRi-10K/C25/30	SGBRi-10K/B25/30-A	SGBRi-10K/C25/30-A	5
		32	SGBRi-10K/B32/30	SGBRi-10K/C32/30	SGBRi-10K/B32/30-A	SGBRi-10K/C32/30-A	5
		40	SGBRi-10K/B40/30	SGBRi-10K/C40/30	SGBRi-10K/B40/30-A	SGBRi-10K/C40/30-A	5
	100mA	6	SGBRi-10K/B6/100	SGBRi-10K/C6/100	SGBRi-10K/B6/100-A	SGBRi-10K/C6/100-A	5
		10	SGBRi-10K/B10/100	SGBRi-10K/C10/100	SGBRi-10K/B10/100-A	SGBRi-10K/C10/100-A	5
		13	SGBRi-10K/B13/100	SGBRi-10K/C13/100	SGBRi-10K/B13/100-A	SGBRi-10K/C13/100-A	5
		16	SGBRi-10K/B16/100	SGBRi-10K/C16/100	SGBRi-10K/B16/100-A	SGBRi-10K/C16/100-A	5
		20	SGBRi-10K/B20/100	SGBRi-10K/C20/100	SGBRi-10K/B20/100-A	SGBRi-10K/C20/100-A	5
		25	SGBRi-10K/B25/100	SGBRi-10K/C25/100	SGBRi-10K/B25/100-A	SGBRi-10K/C25/100-A	5
		32	SGBRi-10K/B32/100	SGBRi-10K/C32/100	SGBRi-10K/B32/100-A	SGBRi-10K/C32/100-A	5
		40	SGBRi-10K/B40/100	SGBRi-10K/C40/100	SGBRi-10K/B40/100-A	SGBRi-10K/C40/100-A	5
Type A 	300mA	6	SGBRi-10K/B6/300	SGBRi-10K/C6/300	SGBRi-10K/B6/300-A	SGBRi-10K/C6/300-A	5
		10	SGBRi-10K/B10/300	SGBRi-10K/C10/300	SGBRi-10K/B10/300-A	SGBRi-10K/C10/300-A	5
		13	SGBRi-10K/B13/300	SGBRi-10K/C13/300	SGBRi-10K/B13/300-A	SGBRi-10K/C13/300-A	5
		16	SGBRi-10K/B16/300	SGBRi-10K/C16/300	SGBRi-10K/B16/300-A	SGBRi-10K/C16/300-A	5
		20	SGBRi-10K/B20/300	SGBRi-10K/C20/300	SGBRi-10K/B20/300-A	SGBRi-10K/C20/300-A	5
		25	SGBRi-10K/B25/300	SGBRi-10K/C25/300	SGBRi-10K/B25/300-A	SGBRi-10K/C25/300-A	5
		32	SGBRi-10K/B32/300	SGBRi-10K/C32/300	SGBRi-10K/B32/300-A	SGBRi-10K/C32/300-A	5
		40	SGBRi-10K/B40/300	SGBRi-10K/C40/300	SGBRi-10K/B40/300-A	SGBRi-10K/C40/300-A	5

1. Curves



2. Breaking time of residual current

$I_n(A)$	$I_{\Delta n}(A)$	Max. breaking time			
		$I_{\Delta n}$	$2I_{\Delta n}$	$5I_{\Delta n}$	5A,10A,20A,50A,100A,200A,500A
6-40	0.01,0.03,0.1,0.3	0.1s	0.08s	0.04s	0.04s

3. Wiring

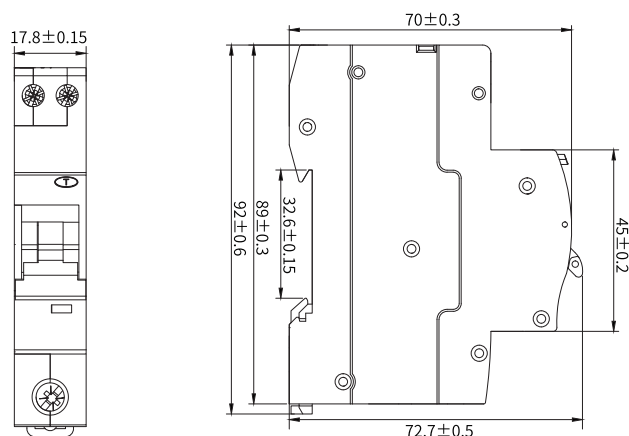
The suitable conductors should be used for connection, see table below for relative parameters.

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

4. Features

- Switching and isolation function.
- Protection against overload and short-circuit currents.
- Protection against the effects of sinusoidal alternating earth fault currents.
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults.
- Used in residential building and distribution boards.

5. Overall and mounting dimensions



SGBRi-6K/SGBRi-10K