

SGR Series Residual Current Circuit Breaker

Technical data

Standard	EN / IEC61008-1
Rated conditional short-circuit current, I_{nc}	6kA, 10kA
Protection	Ground fault
Rated current, I_n	16,20,25,32,40,50,63,80A
Number of poles	2(1+N),4(3+N)pole
Rated sensitivity currents, $I_{\Delta n}$	10,30,100,300mA
Rated residual non-operating current	$0.5 \times I_{\Delta n}$
Rated impulse withstand voltage U_{imp}	4kV
Rated voltage	2pole 240VAC 4pole 415 VAC
Ambient temperature ($^{\circ}C$)	-25~+40,Max. 95%humidity
Residual current off--time at $I_{\Delta n}$	$\leq 0.1s$
Rated residual current making & breaking capacity, $I_{\Delta m}$	500A for $I_n=16,25,32,40,50A$ 630A for $I_n=63A$ 800A for $I_n=80A$
Type of trip	Electro-magnetic release
Type of terminal	Lug type and Pin type
Terminal capacity	Cables up to 25mm ²
Protection degree	IP20
Installation	35mm DIN rail

01



SGR-2P





SGR-4P



SGR-2P



SGR-4P

SGR RCD	Rated current(A)	$I_{\Delta n}$	Type AC 	Type A 	Packing unit	
SGR-2P	16	10mA	SGR/2/16/10	SGR/2/16/10-A	1	
	20		SGR/2/20/10	SGR/2/20/10-A	1	
	25		SGR/2/25/10	SGR/2/25/10-A	1	
	SGR-2P	16	30mA	SGR/2/16/30	SGR/2/16/30-A	1
		20		SGR/2/20/30	SGR/2/20/30-A	1
		25		SGR/2/25/30	SGR/2/25/30-A	1
		32		SGR/2/32/30	SGR/2/32/30-A	1
		40		SGR/2/40/30	SGR/2/40/30-A	1
		50		SGR/2/50/30	SGR/2/50/30-A	1
		63		SGR/2/63/30	SGR/2/63/30-A	1
	SGR-2P	80	100mA	SGR/2/80/30	SGR/2/80/30-A	1
		16		SGR/2/16/100	SGR/2/16/100-A	1
20		SGR/2/20/100		SGR/2/20/100-A	1	
25		SGR/2/25/100		SGR/2/25/100-A	1	
32		SGR/2/32/100		SGR/2/32/100-A	1	
40		SGR/2/40/100		SGR/2/40/100-A	1	
50		SGR/2/50/100		SGR/2/50/100-A	1	
63		SGR/2/63/100		SGR/2/63/100-A	1	
SGR-2P	80	300mA	SGR/2/80/100	SGR/2/80/100-A	1	
	16		SGR/2/16/300	SGR/2/16/300-A	1	
	20		SGR/2/20/300	SGR/2/20/300-A	1	
	25		SGR/2/25/300	SGR/2/25/300-A	1	
	32		SGR/2/32/300	SGR/2/32/300-A	1	
	40		SGR/2/40/300	SGR/2/40/300-A	1	
	50		SGR/2/50/300	SGR/2/50/300-A	1	
	63		SGR/2/63/300	SGR/2/63/300-A	1	
SGR-4P	80	10mA	SGR/4/80/30	SGR/4/80/30-A	1	
	16		SGR/4/16/10	SGR/4/16/10-A	1	
	20		SGR/4/20/10	SGR/4/20/10-A	1	
	SGR-4P	25	30mA	SGR/4/25/10	SGR/4/25/10-A	1
		16		SGR/4/16/30	SGR/4/16/30-A	1
		20		SGR/4/20/30	SGR/4/20/30-A	1
		25		SGR/4/25/30	SGR/4/25/30-A	1
		32		SGR/4/32/30	SGR/4/32/30-A	1
		40		SGR/4/40/30	SGR/4/40/30-A	1
		50		SGR/4/50/30	SGR/4/50/30-A	1
	SGR-4P	63	100mA	SGR/4/63/30	SGR/4/63/30-A	1
		80		SGR/4/80/30	SGR/4/80/30-A	1
16		SGR/4/16/100		SGR/4/16/100-A	1	
20		SGR/4/20/100		SGR/4/20/100-A	1	
25		SGR/4/25/100		SGR/4/25/100-A	1	
32		SGR/4/32/100		SGR/4/32/100-A	1	
40		SGR/4/40/100		SGR/4/40/100-A	1	
50		SGR/4/50/100		SGR/4/50/100-A	1	
SGR-4P	63	300mA	SGR/4/63/100	SGR/4/63/100-A	1	
	80		SGR/4/80/100	SGR/4/80/100-A	1	
	16		SGR/4/16/300	SGR/4/16/300-A	1	
	20		SGR/4/20/300	SGR/4/20/300-A	1	
	25		SGR/4/25/300	SGR/4/25/300-A	1	
	32		SGR/4/32/300	SGR/4/32/300-A	1	
	40		SGR/4/40/300	SGR/4/40/300-A	1	
	50		SGR/4/50/300	SGR/4/50/300-A	1	
SGR-4P	63	300mA	SGR/4/63/300	SGR/4/63/300-A	1	
	80		SGR/4/80/300	SGR/4/80/300-A	1	

1. Life

In	Operating cycles		Operating frequency (operations/h)
	On-load operating cycles	Off-load operating cycles	
16,20,25,32	2000	2000	240
40,50,63,80	2000	1000	120

2. Breaking time of residual current

Max.breaking time					
In(A)	I _{Δn} (A)	I _{Δn}	2I _{Δn}	5I _{Δn}	5A,10A,20A,50A,100A,200A,500A
16,20,25,32, 40,50,63,80	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 In (A)	Cross section area s (mm ²)	Tightening torque (N.m)
16	2.5	2.5
20	2.5	2.5
25	4	2.5
32	6	2.5
40	10	2.5
50	16	2.5
63	16	2.5
80	25	2.5

4. Features

When designing residual current devices, manufacturing technology and type of routine tests, the IEC / EN 61008-1 standards were considered. Important features are:

Up to date design

User-friendly connection of conductors and busbars

Resistance to current surges; unwanted tripping excluded

Simple and solid fixing to a 35 mm mounting rail in compliance with EN 60715

Additional colour display of main contacts position (red:contacts closed, green:contacts open)

5. Overall and mounting dimensions

