

■ Datasheet: RCCB Residual Current Circuit Breaker series BCF6, 6kA



■ SCHRACK-INFO

- Contact position indicator
- Not dependent on position
- Power supply on top or bottom

■ Technical data

Standards	IEC/EN 61008-1, IEC/EN 61008-2-1 G: ÖVE E 8601
Poles	2, 4
Type	AC, A
Tripping-type	Main voltage independent
Delay-type	undelayed, G
Rated current I_n	25 A, 40 A, 63 A
Rated residual current $I_{\Delta n}$	0,03A, 0,1A, 0,3A, 0,5A
Rated voltage U_e	230/400 V-AC 4-pole 230 V-AC 2-pole
Rated insulation voltage U_i	440 V
Rated frequency (AC):	50/60 Hz
Main supply side	top or bottom
Rated impulse withstand voltage U_{imp}	4 kV
Short-circuit current I_{nc}	6.000 A

Max. back-up fuse as short circuit protection (SCPD)		25 A - type	63 A gG
		40 A - type	63 A gG
		63 A - type	63 A gG
Max. back-up fuse as overload protection (OPCD)		25 A - type	25 A gG
		40 A - type	25 A gG
		63 A - type	40 A gG
Rated residual making and breaking capacity $I_m, I_{\Delta m}$		25 A - type	500 A
		40 A - type	500 A
		63 A - type	630 A
Tripping time	undelayed	$I_{\Delta n}$	$\leq 300\text{ms}$
		$2 \times I_{\Delta n}$	$\leq 150\text{ms}$
		$\geq 5 \times I_{\Delta n}$	$\leq 40\text{ms}$
	G	$I_{\Delta n}$	$\geq 10\text{ms und } \leq 300\text{ms}$
		$2 \times I_{\Delta n}$	$\geq 10\text{ms und } \leq 150\text{ms}$
		$\geq 5 \times I_{\Delta n}$	$\geq 10\text{ms und } \leq 40\text{ms}$
No tripping residual current			$\leq 0,5 I_{\Delta n}$
Rated voltage of test circuit		2 pole	195,5 - 250 V-AC
		4 pole	195,5 - 440 V-AC
Prevents nuisance tripping caused by switching electronic light:		undelayed	with commercially available ballast according to the manufacturer max. 20 EVG each phase, max. 60 each RCCB
		delayed G 30 mA	with commercially available ballast according to the manufacturer max. 30 EVG each phase, max. 90 each RCCB
		delayed G 100 mA	with commercially available ballast according to the manufacturer max. 90 EVG each phase
Power loss			according to the following diagram
Electrical endurance			> 4.000 cycles
Mechanical endurance			> 20.000 cycles
Position indicator			yes (red /green)
Pollution degree			2
Protection degree			IP 20
		in panel	IP 40
Finger and hand touch safe			according to BGV A3, ÖVE-EN 6
Ambient operating temperature			-25 °C bis +40 °C
Max. ambient temperature			-25 °C bis +60 °C (expect 25A)

Terminals	open mouthed terminal and lift clamps both sides	
Terminal-screws	Pozidriv PZ2	
Wire-material	Cu	
Terminal capacity	1 x 1,5 - 35mm ² single wire	
	2 x 16 mm ² stranded	
	more information in the following diagram	
Material thickness busbar	0,8 - 2 mm	
Torque	2 - 2,4 Nm	
Dimension and weight	2-pole	W x H x D: 35 x 80 x 63 mm
		0,22 kg
	4-pole	W x H x D: 70 x 80 x 63 mm
		0,32 kg
Mounting	Fast clip device on DIN-rail EN 60715 (35mm)	

Note

The test button "T" must be operated once every 6 months (enclosed information sticker). Under non-household-type conditions (e.g. humid or dusty environment), it is recommended to carry out the test at shorter (monthly) intervals.

Pressing the test button "T" only tests the function of the residual current (RC) circuit breaker. This test does not replace the earthing resistance measurement (RE) nor the proper protective conductor test that must be performed separately.

Influence of ambient temperature on the maximum permissible continuous current

2-pole

Ambient-temperature	Rated current		
	25 A	40 A	63 A
40°	25 A	40 A	63 A
45°	21 A	37 A	59 A
50°	18 A	33 A	55 A
55°	14 A	30 A	50 A
60°	-	26 A	45 A

4-pole

Ambient-temperature	Rated current		
	25 A	40 A	63 A
40°	25 A	40 A	63 A
45°	22 A	37 A	59 A
50°	19 A	34 A	55 A
55°	16 A	31 A	50 A
60°	-	27 A	45 A

Note: It must be ensured that these values are not exceeded.
25A RCCB can not be used at 60°C.

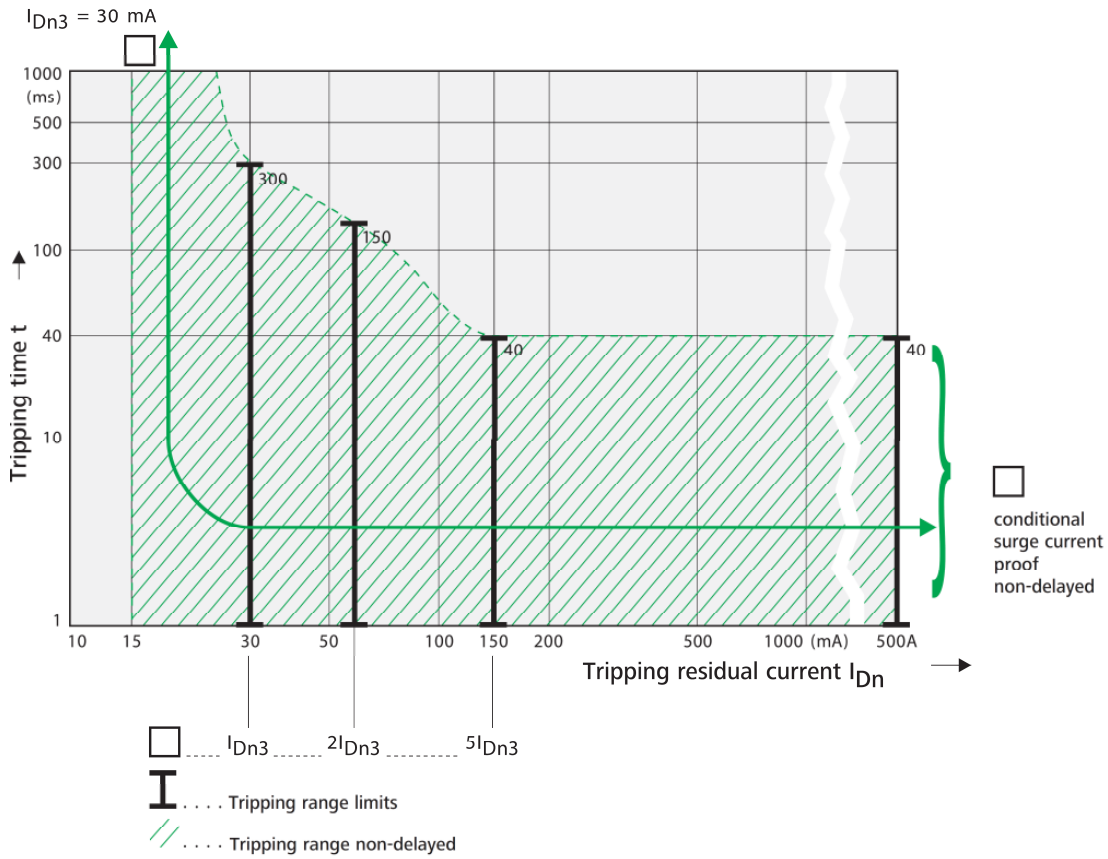
 Power loss

Pole	I_N	$I_{\Delta n}$	Type	Power loss
2-pole	25 A	30mA	AC, A, G/AC	1,3 W
2-pole	25 A	100mA, 300mA, 500mA	AC, A, G/AC	2 W
2-pole	40 A	30mA	AC, A, G/AC, G/A	5,8 W
2-pole	40 A	100mA, 300mA, 500mA	AC, A, G/AC	5,4 W
2-pole	63 A	30mA	AC	9,7 W
2-pole	63 A	100mA, 300mA, 500mA	AC, A	7,2 W

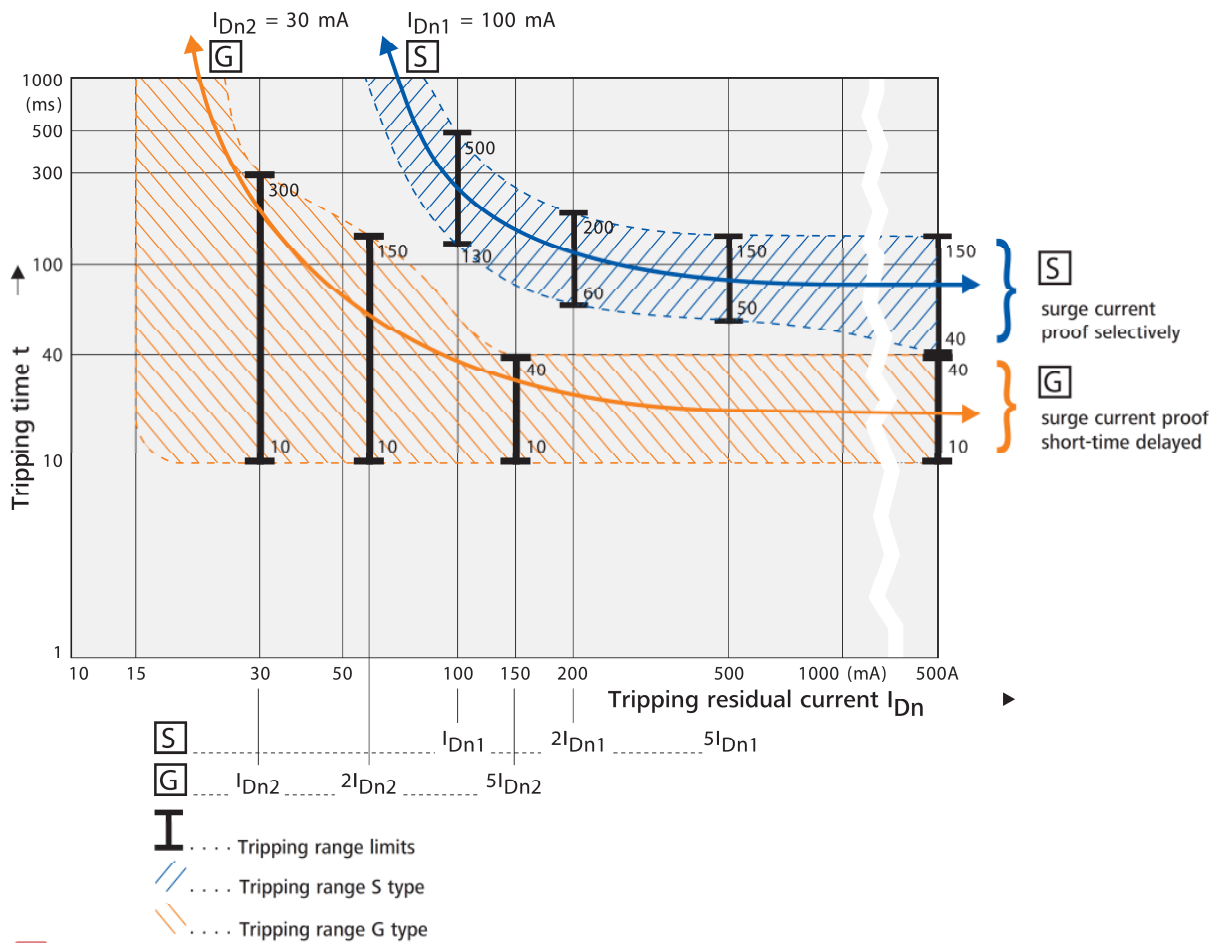
Pole	I_N	$I_{\Delta n}$	Type	Power loss
4-pole	25 A	30mA	AC, A	3,1 W
4-pole	25 A	100mA, 300mA, 500mA	AC	2,8 W
4-pole	40A	30mA	AC, A, G/AC, G/A	9,6 W
4-pole	40A	100mA, 300mA, 500mA	AC, A, G/AC, G/A	8,4 W
4-pole	63A	30mA	AC, A, G/AC, G/A	13,4 W
4-pole	63A	100mA, 300mA, 500mA	AC, A, G/AC, G/A	10,5 W

Tripping characteristics

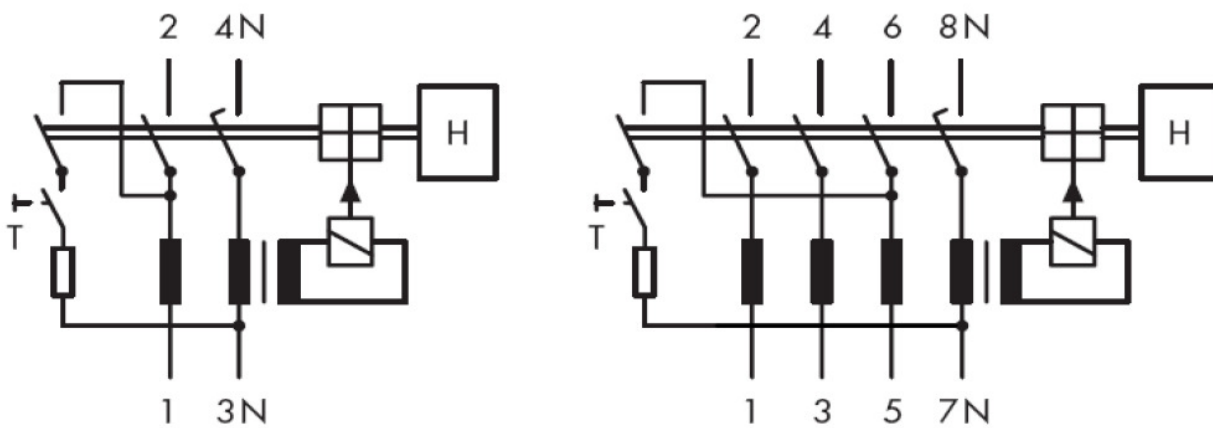
Typical residual current circuit breaker tripping characteristic, non-delayed




Typical residual current circuit breaker tripping characteristics **S** **G**, delayed



Wiring diagram test circuit



 Possible connections

Conductor cross-section	Number of single conductors, rigid, single-wire Cu conductors					
[mm ²]	1	2	3	4	5	6
1.5	+	+	+	+	+	-
2.5	+	+	+	+	-	-
4	+	+	+	+	-	-
6	+	+	+	+	-	-
10	+	+	+	-	-	-
16	+	+	-	-	-	-
25	+	-	-	-	-	-
35	+	-	-	-	-	-

Conductor cross-section	Number of single conductors, rigid, multi-wire Cu conductors					
[mm ²]	1	2	3	4	5	6
10	+	+	+	-	-	-
16	+	+	-	-	-	-
25	+	-	-	-	-	-
35	+	-	-	-	-	-

+ permissible
 - not permissible

Conductor cross-section [mm ²]	Number of single-conductors, flexible Cu conductors					
	1**	2*	3*	4*	5*	6*
1.5	+	-	-	-	+	-
2.5	+	-	+	+	-	-
4	+	+	+	+	-	-
6	+	+	+	+	-	-
10	+	+	-	-	-	-
16	+	+	-	-	-	-
25	+	-	-	-	-	-
35	+	-	-	-	-	-

*) Only without wire end and sleeve

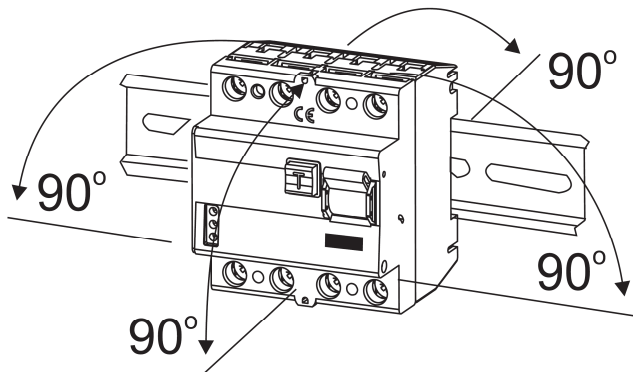
***) Only with wire end and sleeve

Conductor cross-section [mm ²]	Combinations of different cross-sections of flexible Cu conductors with each other								
	Permissible variations (without wire end sleeves)								
1.5	+	-	-	-	-	-	-	-	-
2.5	+	+	-	-	-	+	-	-	-
4	-	+	+	-	-	-	+	-	-
6	-	-	+	+	-	+	-	+	-
10	-	-	-	+	+	-	+	-	+
16	-	-	-	-	+	-	-	+	-
25	-	-	-	-	-	-	-	-	+
35	-	-	-	-	-	-	-	-	-

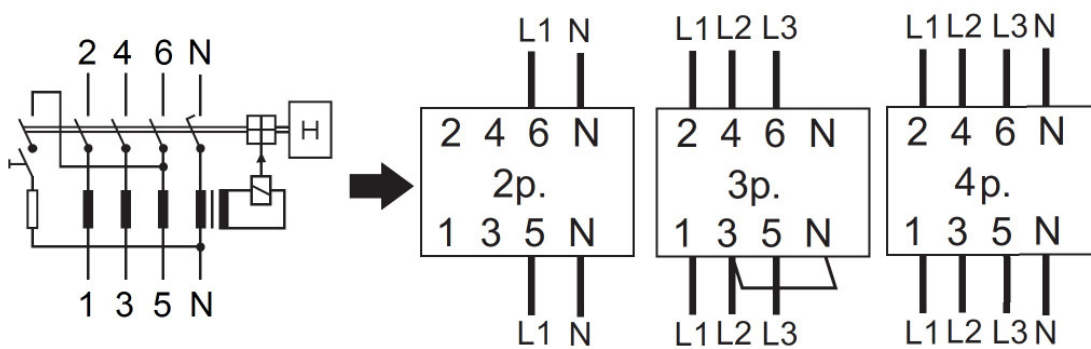
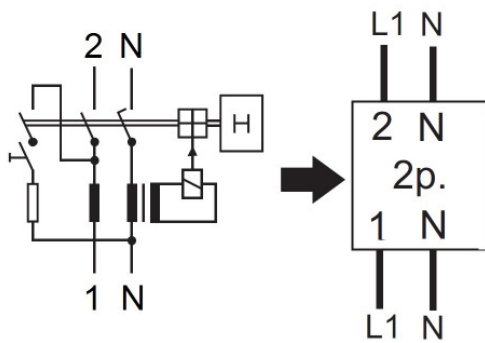
+ permissible
- not permissible

No combinations are permissible for rigid single- and multi-wire Cu conductors!

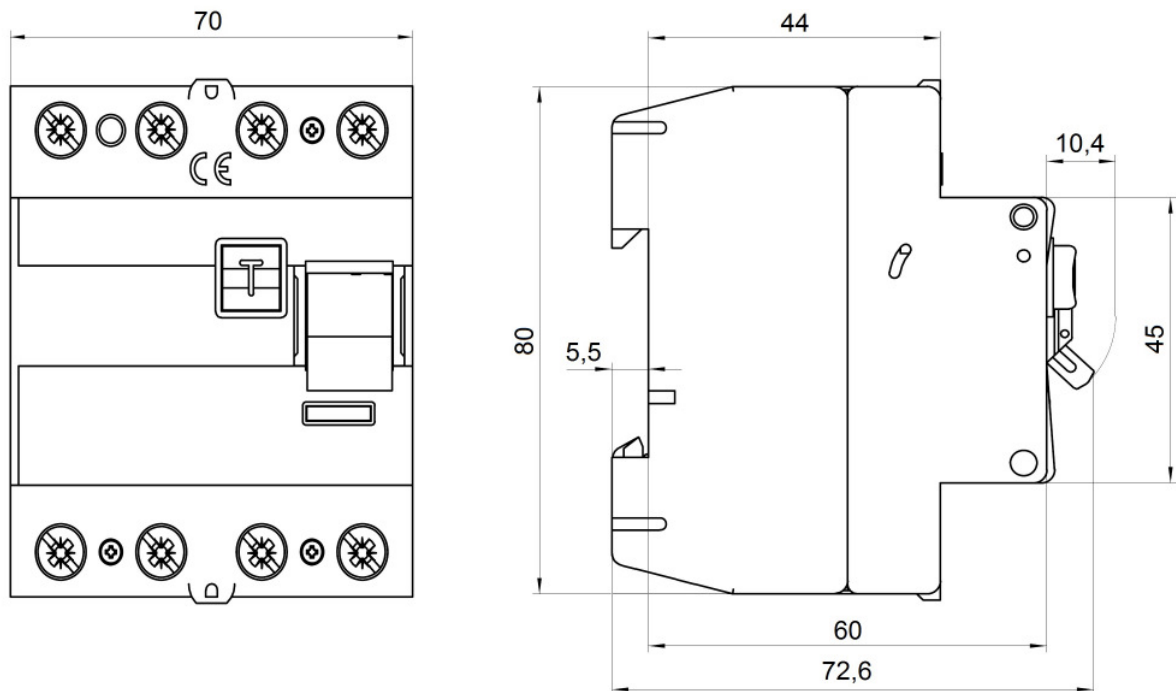
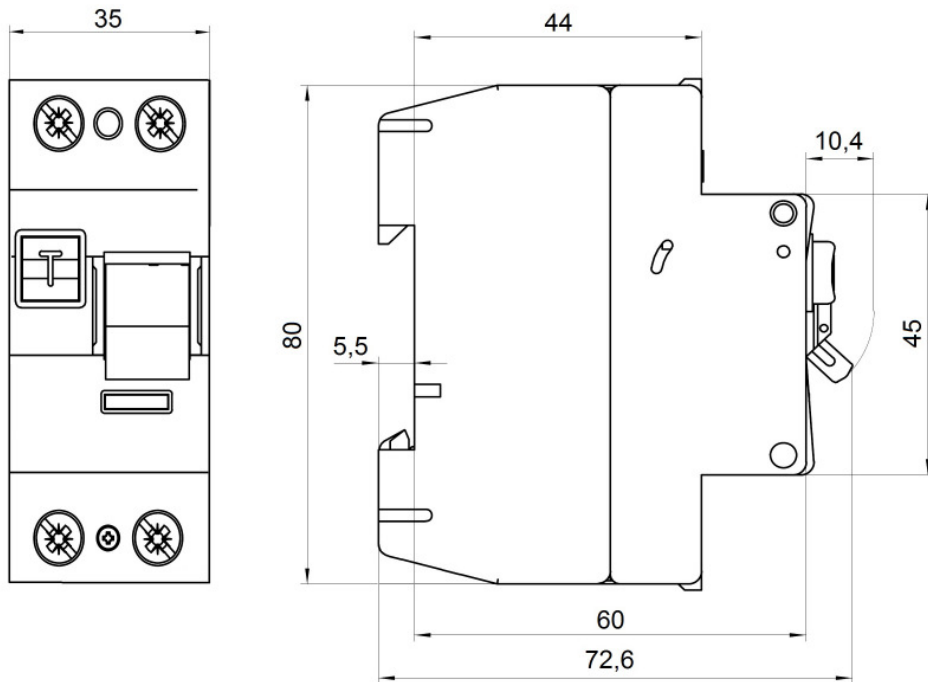
Installation-direction



Wiring diagram



■ Dimensiones



Articles

RCCB Residual Current Circuit Breaker series BCF6, 6kA, type A

RCCB Residual Current Circuit Breaker 6kA, type A, 30mA	
2-pole	
25A / 2 / 0,03A	BC652203--
40A / 2 / 0,03A	BC654203--
63A / 2 / 0,03A	BC656203--
4-pole	
25A / 4 / 0,03A	BC652103--
40A / 4 / 0,03A	BC654103--
63A / 4 / 0,03A	BC656103--

RCCB Residual Current Circuit Breaker 6kA, type A, 100mA	
2-pole	
25A / 2 / 0,1A	BC652210--
40A / 2 / 0,1A	BC654210--
4-pole	
25A / 4 / 0,1A	BC652110--

RCCB Residual Current Circuit Breaker 6kA, type A, 300mA	
2-pole	
25A / 2 / 0,3A	BC652230--
40A / 2 / 0,3A	BC654230--
63A / 2 / 0,3A	BC656230--
4-pole	
25A / 4 / 0,3A	BC652130--
40A / 4 / 0,3A	BC654130--
63A / 4 / 0,3A	BC656130--

RCCB Residual Current Circuit Breaker series BCF6, 6kA, type A, version G

RCCB Residual Current Circuit Breaker 6kA, type A, 30mA, version G	
2-pole	
40A / 2 / 0,03A	BC634203--
4-pole	
40A / 4 / 0,03A	BC634103--

RCCB Residual Current Circuit Breaker series BCF6, 6kA, type AC

RCCB Residual Current Circuit Breaker 6kA, type AC, 30mA	
2-pole	
25A / 2 / 0,03A	BC602203--
40A / 2 / 0,03A	BC604203--
63A / 2 / 0,03A	BC606203--
4-pole	
25A / 4 / 0,03A	BC602103--
40A / 4 / 0,03A	BC604103--
63A / 4 / 0,03A	BC606103--
RCCB Residual Current Circuit Breaker 6kA, type AC, 100mA	
2-pole	
25A / 2 / 0,1A	BC602210--
40A / 2 / 0,1A	BC604210--
63A / 2 / 0,1A	BC606210--
4-pole	
25A / 4 / 0,01A	BC602110--
40A / 4 / 0,1A	BC604110--
63A / 4 / 0,1A	BC606110--
RCCB Residual Current Circuit Breaker 6kA, type AC, 300mA	
2-pole	
25A / 2 / 0,3A	BC602230--
40A / 2 / 0,3A	BC604230--
63A / 2 / 0,3A	BC606230--
4-pole	
25A / 4 / 0,3A	BC602130--
40A / 4 / 0,3A	BC604130--
63A / 4 / 0,3A	BC606130--

RCCB Residual Current Circuit Breaker 500mA (Serbia), 6kA, type AC

RCCB Residual Current Circuit Breaker, 500mA (Serbia), 6kA	
4-pole	
25A / 4 / 0,5A	BC602150--
40A / 4 / 0,5A	BC604150--
63A / 4 / 0,5A	BC606150--