

SCHRACK RCCBS

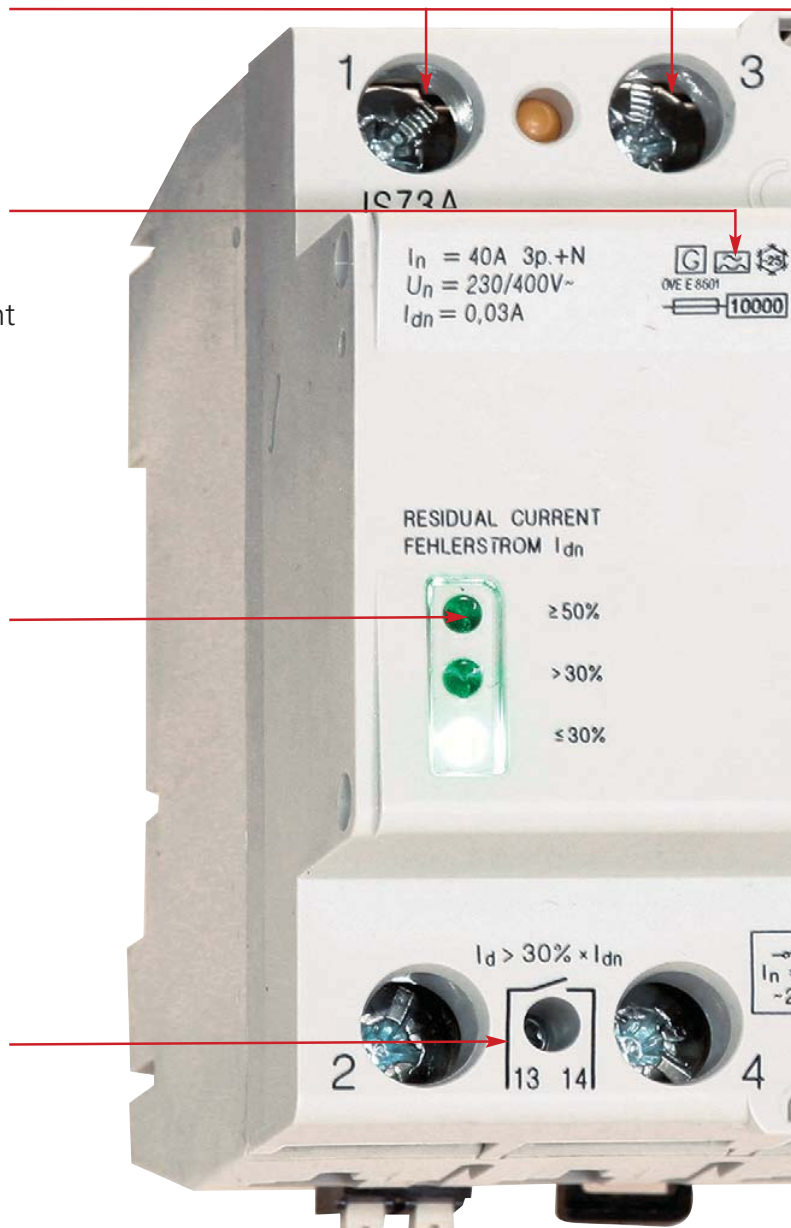
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- ▀ Double comfort terminal 35 mm², on both sides

- ▀ Pulse current-sensitive residual current detection offers more protection, the maximum thermal back-up fuse corresponds to the printed rated current

- ▀ Visual residual current detection alerts you of residual currents already during operation, that may be caused by a defective device

- ▀ Information for increased residual current via built-in, potential-free contact



PRIORI – TOP PRIORITY

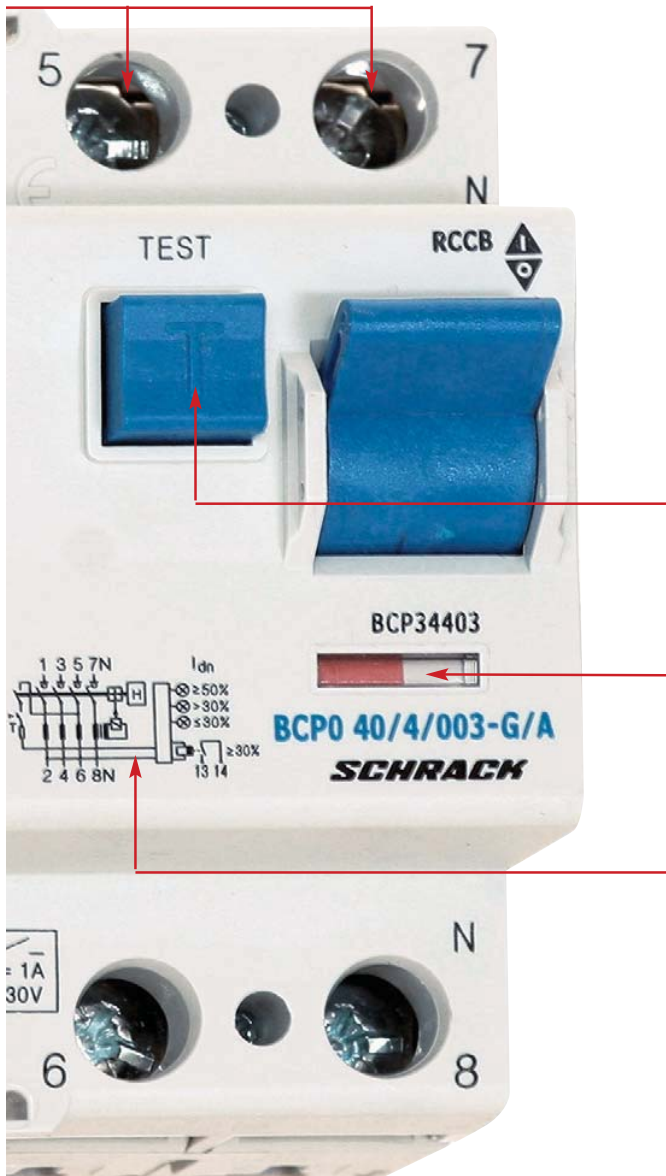
THE INNOVATIVE GENERATION THE RCCB

These RCCBs independent of the mains voltage can be used as fault and additional protection according to construction standards and regulations. They are fully compatible with the proven SCHRACK range of DIN rail mounted products, which allows a large selection of accessories available.

■ Test button now only needs to be pushed once a year

■ In addition to the contact position indicator, there is a new "trip" indicator (blue/white) which detects whether an electrical fault or manual switch-off has occurred

■ High-precision tripping avoids nuisance tripping



RCCB, SERIES PRIORI

SCHRACK RCCB PRIORI INDICATED RESIDUAL CURRENTS EVEN BEFORE TRIPPING

RESIDUAL CURRENT INDICATION BY LED DISPLAY



Green: Normal operation
Residual current $\leq 30\% I_{\Delta n}$



Yellow: Prior information notice
Residual current $> 30\%$ and $\leq 50\% I_{\Delta n}$



Red: Risk of tripping
Residual current $> 50\% I_{\Delta n}$

SCHRACK RCCB PRIORI ALLOW YOU TO INTERVENE IN TIME

POTENTIAL-FREE RELAY FOR TRIPPING WARNING



If the residual current circuit breaker is greater than 30%, the potential-free relay NO contact notifies up to 250 V AC, 1 A (terminal cross-section 0.25 - 1.5 mm² / quick-connect spring-clamp terminals)

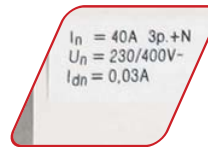
SCHRACK RCCB PRIORI ALWAYS PROVIDES TOP INFORMATION



Contact position indicator (green/red) and indication of electr. tripping (white/blue)



Any mains connection



The thermal back-up fuse (gG) matches the rated current printed on the device



Annual test interval instead of monthly interval

RCCB, SERIES PRIORI – GENERAL INFORMATION

TECHNICAL DATA

Rated voltage:	230/400 V AC, 50 Hz	
Regulations:	IEC/EN 61008, design G acc. to ÖVE E 8601	
Sensitivity:	Pulse current sensitive (type A)	
Rated residual currents $I_{\Delta n}$:	30 mA, 100 mA, 300 mA	
Tripping times:	Delayed at least 10 ms (design G), delayed at least 40 ms delay (design S), selectively switching off	
Max. permissible back-up fuse:	Overload:	Short circuit:
$I_n = 40A$	40A gG	63 A gG
$I_n = 63 A$	63A gG	63 A gG
$I_n = 80A$	80A gG	80A gG
Short circuit resistance I_{nc} :	10 kA	
Surge current proof:	>3 kA (8/20 μ s) version G, >5 kA (8/20 μ s) version S	
Rated surge voltage protection U_{imp} :	4 kV (1.2/50 μ s)	
Rated voltage U_n :	230/400 and 240/415 V AC, 50/60 Hz	
Operating voltage for electronics:	50 – 254 V AC	
Operating voltage test circuit:	184 – 440V AC	
Endurance:	Electrical ≥ 4.000 operating cycles, mechanical ≥ 20.000 operating cycles	
Lamp strength:	Max. 20 electronic ballasts per phase, max. 60 per RCCB (typical, commercially available)	
Contact position indicator:	red / green	
Trip indicator:	white / blue	
Max. permissible ambient temperature:	-25 °C to +40 °C	
Climatic proofing:	According to IEC/EN 61008	
Finger and hand touch safe:	According to BGV A3, ÖVE-EN 6	
Terminal type:	Clamp -and-lift terminals on both sides	
Terminal cross-section:	1-35 mm ² solid, 2x16 mm ² stranded	
Terminal screws:	Pozidriv PZ2	
Tightening torque for terminal screws:	2 - 2.4 Nm	

NOTE

Operate test button of PRIORI circuit breaker 1x annually. A further test is necessary if the red and yellow LEDs light up simultaneously. The switch should trip immediately. The system operator is responsible for this test! Under non-household-type conditions (e.g. humid or dusty environment), it is recommended to carry out the test at shorter 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.



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RCCB SERIES PRIORI, PULSE CURRENT SENSITIVE (TYPE A), SURGE CURRENT PROOF 3 kA (8/20 μs), 10 ms DELAYED, CHARACTERISTIC G



BCP34403

SCHRACK-INFO

- Detects also pulsating DC residual currents in addition to sinusoidal AC residual currents
- Any power supply
- Installation not dependent on position

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT/VERSION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40 A 4-pole 30 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 40/4/003-G/A	9004840616743		BCP34403
63 A 4-pole 30 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 63/4/003-G/A	9004840616750		BCP36603
80 A 4-pole 30 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 80/4/003-G/A	9004840616767		BCP38803
63 A 4-pole 300 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 63/4/003-G/A	9004840616774		BCP36630
80 A 4-pole 300 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 80/4/003-G/A	9004840616781		BCP38830

RCCB SERIES PRIORI, PULSE CURRENT SENSITIVE (TYPE A), SURGE CURRENT PROOF 3 kA (8/20 μs), CHARACTERISTIC R, (X-RAY)



BCP34403

SCHRACK-INFO

- Detects also pulsating DC residual currents in addition to sinusoidal AC residual currents
- Any power supply
- Installation not dependent on position
- Avoids nuisance tripping caused by X-ray equipment

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT/VERSION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
63 A 4-pole 30 mA, type A, back-up fuse proof, X-ray proof	4	1	V-BCP0 63/4/003-R	9004840616828		BCPR6603



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RCCB SERIES PRIORI, PULSE CURRENT SENSITIVE (TYPE A), SURGE CURRENT PROOF 5 kA (8/20 μs), 40 ms DELAYED, CHARACTERISTIC S



BCP34403

SCHRACK-INFO

- Detects also pulsating DC residual currents in addition to sinusoidal AC residual currents
- Any power supply
- Installation not dependent on position

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT/VERSION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40 A 4-pole 300 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 40/4/03-S/A	9004840616798		BCP64430
63 A 4-pole 300 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 63/4/03-S/A	9004840616804		BCP66630
80 A 4-pole 300 mA, type A, version G, back-up fuse proof	4	1	V-BCP0 80/4/03-S/A	9004840616811		BCP68830

RCCB SERIES PRIORI, PULSE CURRENT SENSITIVE, DELAYED, FREQUENCY CONVERTER PROOF CHARACTERISTIC G: SURGE CURRENT PROOF 3 kA (8/20 μs), 10 ms DELAYED CHARACTERISTIC S: SURGE CURRENT PROOF 5 kA (8/20 μs), 40 ms DELAYED



BCP34403

SCHRACK-INFO

- Detects also pulsating DC residual currents in addition to sinusoidal residual currents
- Any power supply
- Installation not dependent on position
- Frequency-converter proof type

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT/VERSION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40A 4-p. 30 mA, type A, version G, Back-up fuse-/frequency converter proof	4	1	V-BCP0 U-40/4/003-G/A	9004840616835		BCP94403
63 A 4-p. 30 mA, type A, version G, Back-up fuse-/frequency converter proof	4	1	V-BCP0 U-63/4/003-G/A	9004840616842		BCP96603
40A 4-p. 300 mA, type A, version S, Back-up fuse-/frequency converter proof	4	1	V-BCP0 U-40/4/03-S/A	9004840616859		BCP94430
63 A 4-p. 300 mA, type A, version S, Back-up fuse-/frequency converter proof	4	1	V-BCP0 U-63/4/03-S/A	9004840616866		BCP96630
80A 4-p. 300 mA, type A, version S, Back-up fuse-/frequency converter proof	4	1	V-BCP0 U-80/4/03-S/A	9004840616873		BCP98830

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0 AND BCF6, 25-63 A



BC004103

SCHRACK-INFO

- Contact position indicator, trip-indicator **)
- Sensitivity: AC and pulse current sensitive (type A)
- Not dependent on position
- Any power supply

When using V-FIs or FI-Hs, the thermal back-up fuse matches the rated current printed on the device.

TIPS & TRICKS

- When using 4-pole switches with 3-phase or 1-phase wiring, follow the mounting instructions for the connection.
- The test button "T" must be operated once a month (enclosed information sticker).
- 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.

REGULATIONS

IEC/EN 61008, version G acc. to ÖVE E 8601

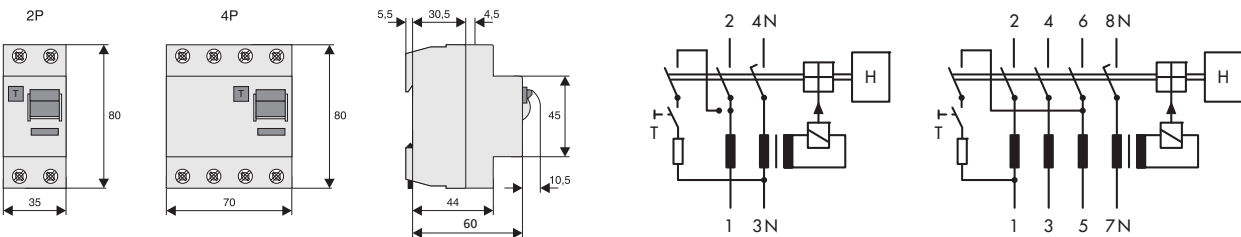
ACCESSORIES

- Auxiliary contact
- Signal contact
- Automatic remote switching unit (FSA)
- Busbar
- Terminal cover

TECHNICAL DATA

Rated voltage:	230/400 V AC 4-pole, 230 V AC 2-pole, 50 Hz		
Permissible ambient temperature:	-25 °C to +40 °C		
Max. permissible back-up fuse	$I_n = 25-40 \text{ A}$	Overload: 25 A gG	Short circuit: 63 A gG
	$I_n = 63 \text{ A}$	40 A gG	63 A gG
Short-circuit resistance:	6 kA with back-up fuse 63 A gG, see label		
Terminals:	2/4-pole, clamp and lift terminals on both sides, 1-35 mm ² solid, 2x16 mm ² stranded		
Finger and hand touch safe:	According to BGV A3, ÖVE-EN 6		
Rated residual current:	30 mA, 100 mA, 300 mA (others available on request)		
Endurance:	Electrical ≥ 4.000 operating cycles, mechanical ≥ 20.000 operating cycles		
Lamp strength:	Max. 20 electronic ballasts per phase, max. 60 per RCCB (typical, commercially available)		
Special snap-on mounting:	For DIN rail EN 50 022		
Surge current proof:	$>250 \text{ A}$ (8/20 μs)		
Tripping times:	Non-delayed		
Degree of protection:	IP20 or IP40 covered		

DIMENSIONS AND WIRING DIAGRAMS




















RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF6, 6 kA, AC SENSITIVE, TYPE AC, SURGE CURRENT PROOF 250 A (8/20 μ s)



SCHRACK-INFO

Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002













RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
25 A/2/0.03 A	2	1	BCF6 25/2/003	9004840394023		BC602203
25 A/2/0.1 A	2	1	BCF6 25/2/01	9004840451467		BC602210
25 A/2/0.3 A	2	1	BCF6 25/2/03	9004840394030		BC602230
40 A/2/0.03 A	2	1	BCF6 40/2/003	9004840394061		BC604203
40 A/2/0.1 A	2	1	BCF6 40/2/01	9004840451474		BC604210
40 A/2/0.3 A	2	1	BCF6 40/2/03	9004840394078		BC604230
63 A/2/0.03 A	2	1	BCF6 63/2/003	9004840394108		BC606203
63 A/2/0.3 A	2	1	BCF6 63/2/03	9004840394115		BC606230
25 A/4/0.03 A	4	1	BCF6 25/4/003	9004840394153		BC602103
25 A/4/0.1 A	4	1	BCF6 25/4/01	9004840451511		BC602110
25 A/4/0.3 A	4	1	BCF6 25/4/03	9004840394160		BC602130
40 A/4/0.03 A	4	1	BCF6 40/4/003	9004840394191		BC604103
40 A/4/0.1 A	4	1	BCF6 40/4/01	9004840451528		BC604110
40 A/4/0.3 A	4	1	BCF6 40/4/03	9004840394207		BC604130
63 A/4/0.03 A	4	1	BCF6 63/4/003	9004840394238		BC606103
63 A/4/0.1 A	4	1	BCF6 63/4/01	9004840451610		BC606110
63 A/4/0.3 A	4	1	BCF6 63/4/03	9004840394245		BC606130

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF6, 6 kA, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 250 A (8/20 μ s)



SCHRACK-INFO

- For protection in specific forms of non-smoothed DC residual currents
- Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
25 A/2/0.03 A	2	1	BCF6 25/2/003-A	9004840394009		BC652203
25 A/2/0.3 A	2	1	BCF6 25/2/03-A	9004840394016		BC652230
40 A/2/0.03 A	2	1	BCF6 40/2/003-A	9004840394047		BC654203
40 A/2/0.3 A	2	1	BCF6 40/2/03-A	9004840394054		BC654230
63 A/2/0.03 A	2	1	BCF6 63/2/003-A	9004840394085		BC656203
63 A/2/0.3 A	2	1	BCF6 63/2/03-A	9004840394092		BC656230
25 A/4/0.03 A	4	1	BCF6 25/4/003-A	9004840394122		BC652103
25 A/4/0.3 A	4	1	BCF6 25/4/03-A	9004840394139		BC652130
40 A/4/0.03 A	4	1	BCF6 40/4/003-A	9004840394177		BC654103
40 A/4/0.3 A	4	1	BCF6 40/4/03-A	9004840394184		BC654130
63 A/4/0.03 A	4	1	BCF6 63/4/003-A	9004840394214		BC656103
63 A/4/0.3 A	4	1	BCF6 63/4/03-A	9004840394221		BC656130



Order no. blue: on stock, usually ready for delivery on the day of order!

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 25-100 A



BC004103

SCHRACK-INFO

- Contact position indicator, trip-indicator **)
- Sensitivity: AC and pulse current sensitive (type A)
- Not dependent on position
- Any power supply

When using V-FIs or FI-Hs, the thermal back-up fuse matches the rated current printed on the device.

TIPS & TRICKS

- When using 4-pole switches with 3-phase or 1-phase wiring, follow the mounting instructions for the connection.
- The test button "T" must be operated once a month (enclosed information sticker).
- 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.

REGULATIONS

IEC/EN 61008, version G acc. to ÖVE E 8601

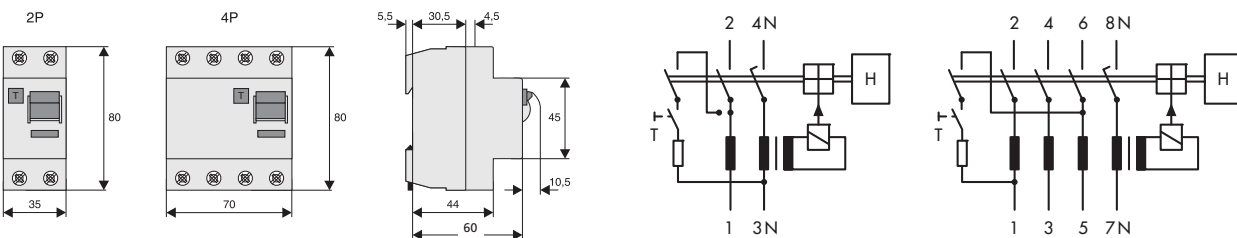
ACCESSORIES

- Auxiliary contact
- Signal contact
- Automatic remote switching unit (FSA)
- Busbar
- Terminal cover

TECHNICAL DATA

Rated voltage:	230/400 V AC 4-pole, 230 V AC 2-pole, 50 Hz		
Permissible ambient temperature:	-25 °C to +40 °C		
Max. permissible back-up fuse	$I_n = 16 \text{ A}$	Overload: 10 A gG	Short circuit: 63 A gG
	$I_n = 25-40 \text{ A}$	25 A gG	63 A gG
	$I_n = 63 \text{ A}$	40 A gG	63 A gG
	$I_n = 80 \text{ A}$	50 A gG	80 A gG
	$I_n = 100 \text{ A}$	63 A gG	100 A gG
Back-up fuse proof BCF0-VF	$I_n = 40 \text{ A}$	40 A gG	80 A gG
	$I_n = 63 \text{ A}$	63 A gG	80 A gG
Short-circuit resistance:	10 kA with back-up fuse 63 A gG, see label		
Terminals:	2/4-pole, clamp and lift terminals on both sides, 1-35 mm ² solid, 2x16 mm ² stranded		
Finger and hand touch safe:	According to BGV A3, ÖVE-EN 6		
Rated residual current:	30 mA, 100 mA, 300 mA (others available on request)		
Endurance:	Electrical ≥ 4.000 operating cycles, mechanical ≥ 20.000 operating cycles		
Lamp strength:	Max. 20 electronic ballasts per phase, max. 60 per RCCB (typical, commercially available)		
Special snap-on mounting:	For DIN rail EN 50 022		
Surge current proof:	>250 A (8/20 μs) >3 kA (8/20 μs) type G >5 kA (8/20 μs) type S		
Tripping times:	Non-delayed At least 10 ms delayed (characteristik G) At least 40 ms delayed (type S), selectively tripping		
Degree of protection:	IP20 or IP40 covered		

DIMENSIONS AND WIRING DIAGRAMS



RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, AC SENSITIVE, TYPE AC, SURGE CURRENT PROOF 250 A (8/20 μ s)



BC004103

SCHRACK-INFO

Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
25 A/2/0.03 A	2	1	BCF0 25/2/003	9004840393514		BC002203
25 A/2/0.1 A	2	1	BCF0 25/2/01	9004840393521		BC002210
25 A/2/0.3 A	2	1	BCF0 25/2/03	9004840393545		BC002230
40 A/2/0.03 A	2	1	BCF0 40/2/003	9004840393583		BC004203
40 A/2/0.1 A	2	1	BCF0 40/2/01	9004840393590		BC004210
40 A/2/0.3 A	2	1	BCF0 40/2/03	9004840393606		BC004230
63 A/2/0.03 A	2	1	BCF0 63/2/003	9004840393644		BC006203
63 A/2/0.3 A	2	1	BCF0 63/2/03	9004840393668		BC006230
25 A/4/0.03 A	4	1	BCF0 25/4/003	9004840393484		BC002103
25 A/4/0.1 A	4	1	BCF0 25/4/01	9004840393491		BC002110
25 A/4/0.3 A	4	1	BCF0 25/4/03	9004840393507		BC002130
40 A/4/0.03 A	4	1	BCF0 40/4/003	9004840393552		BC004103
40 A/4/0.03 A back-up fuse proof	4	1	V-BCF0 40/4/003	9004840395709		BC004403
40 A/4/0.1 A	4	1	BCF0 40/4/01	9004840393569		BC004110
40 A/4/0.1 A back-up fuse proof	4	1	V-BCF0 40/4/01	9004840395716		BC004410
40 A/4/0.3 A	4	1	BCF0 40/4/03	9004840393576		BC004130
63 A/4/0.03 A	4	1	BCF0 63/4/003	9004840393613		BC006103
63 A/4/0.03 A back-up fuse proof	4	1	V-BCF0 63/4/003	9004840409543		BC006603
63 A/4/0.1 A	4	1	BCF0 63/4/01	9004840393620		BC006110
63 A/4/0.1 A back-up fuse proof	4	1	V-BCF0 63/4/01	9004840409550		BC006610
63 A/4/0.3 A	4	1	BCF0 63/4/03	9004840393637		BC006130
80 A/4/0.03 A	4	1	BCF0 80/4/003	9004840422856		BC008103
80 A/4/0.1 A	4	1	BCF0 80/4/01	9004840422863		BC008110
80 A/4/0.3 A	4	1	BCF0 80/4/03	9004840422870		BC008130
100 A/4/0.03 A	4	1	BCF0 100/4/003	9004840422399		BC000103
100 A/4/0.1 A	4	1	BCF0 100/4/01	9004840422405		BC000110
100 A/4/0.3 A	4	1	BCF0 100/4/03	9004840422412		BC000130



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- See availability and price immediately
- Order desired products easily



Order no. blue: on stock, usually ready for delivery on the day of order!


RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0-ME, 10 kA, AC SENSITIVE, TYPE AC, SURGE CURRENT PROOF 250 A (8/20 μs)



BC004103ME

SCHRACK-INFO

Special version for standard temperature 40°C.

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW PU	EAN CODE	AVAILABLE	ORDER NO.
25 A/2/0,03 A	2 1	9004840618990		BC002203ME
25 A/4/0,03 A	4 1	9004840526509		BC002103ME
40 A/2/0,03 A	2 1	9004840526547		BC004203ME
40 A/4/0,03 A	4 1	9004840526516		BC004103ME
40 A/2/0,1 A	2 1	9004840526554		BC004210ME
40 A/4/0,1 A	4 1	9004840526523		BC004110ME
40 A/2/0,3 A	2 1	9004840526561		BC004230ME
40 A/4/0,3 A	4 1	9004840526530		BC004130ME
63 A/2/0,03 A	2 1	9004840526578		BC006203ME
63 A/4/0,03 A	4 1	9004840527353		BC006103ME
63 A/2/0,1 A	2 1	9004840526585		BC006210ME
63 A/4/0,1 A	4 1	9004840527360		BC006110ME
63 A/2/0,3 A	2 1	9004840526592		BC006230ME
63 A/4/0,3 A	4 1	9004840527377		BC006130ME
100 A/2/0,3 A	2 1	9004840529098		BC000230ME



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- Buying products around the clock
- Quick access customer service

















RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, AC SENSITIVE, TYPE AC, SURGE CURRENT PROOF 3 kA (8/20 μ s), 10 ms DELAY, CHARACTERISTIC G



BC024103

SCHRACK-INFO

According to ÖVE ÖNORM 8001-1, paragraph 12.1.6 mandatory for circuits with potential damage to property and persons in case of nuisance tripping. Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
25 A/2/0.03 A	2	1	BCF0 25/2/003-G	9004840393675		BC022203
25 A/2/0.1 A	2	1	BCF0 25/2/01-G	9004840393682		BC022210
40 A/2/0.03 A	2	1	BCF0 40/2/003-G	9004840393712		BC024203
40 A/2/0.1 A	2	1	BCF0 40/2/01-G	9004840393729		BC024210
40 A/4/0.03 A	4	1	BCF0 40/4/003-G	9004840393699		BC024103
40 A/4/0.03 A back-up fuse proof	4	1	V-BCF040/4/003-G	9004840407969		BC024403
40 A/4/0.1 A	4	1	BCF0 40/4/01-G	9004840393705		BC024110
40 A/4/0.1 A back-up fuse proof	4	1	V-BCF040/0/01-G	9004840407983		BC024410
63 A/4/0.03 A	4	1	BCF0 63/4/003-G	9004840393736		BC026103
63 A/4/0.03 A back-up fuse proof	4	1	V-BCF0 63/4/003-G	9004840455069		BC026603
63 A/4/0.1 A	4	1	BCF0 63/4/01-G	9004840393743		BC026110
80 A/4/0.03 A	4	1	BCF0 80/4/003-G	9004840410167		BC026610
63 A/4/0.1 A back-up fuse proof	4	1	V-BCF0 63/4/01-G	9004840449587		BC028103
100 A/4/0.03 A	4	1	BCF0 100/4/003-G	9004840448719		BC020103












RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 250 A (8/20 μ s)



BC052103


SCHRACK-INFO

- For protection in specific forms of non-smoothed DC residual currents
- Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
25 A/4/0.03 A	4	1	1BCF0 25/4/003-A	9004840393781		BC052103
40 A/2/0.03 A	2	1	BCF0 40/2/003-A	9004840393873		BC054203
40 A/4/0.03 A	4	1	BCF0 40/4/003-A	9004840393842		BC054103
40 A/4/0.1 A	4	1	BCF0 40/4/01-A	9004840393859		BC054110
63 A/4/0.03 A	4	1	BCF0 63/4/003-A	9004840393897		BC056103
63 A/4/0.1 A	4	1	BCF0 63/4/01-A	9004840393903		BC056110
80 A/4/0.03 A	4	1	BCF0 80/4/003-A	9004840422887		BC058103
80 A/4/0.3 A	4	1	BCF0 80/4/03-A	9004840422900		BC058130
100 A/4/0.03 A	4	1	BCF0 100/4/003-A	9004840422436		BC050103
100 A/4/0.1 A	4	1	BCF0 100/4/01-A	9004840422443		BC050110
100 A/4/0.3 A	4	1	BCF0 100/4/03-A	9004840422450		BC050130



Order no. blue: on stock, usually ready for delivery on the day of order!




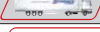

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 3 kA (8/20 μs), CHARACTERISTIC G, 10 ms DELAYED 




BC034103

SCHRACK-INFO

- Pulse current sensitive version type G/A
- Also protects in specific forms of non-smoothed DC residual currents
- Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40 A/4/0.03 A	4	1	BCF0 40-4-003-GA	9004840395730		BC034103
40 A/4/0.03 A back-up fuse proof	4	1	BCF040-4-003VF-GA	9004840407976		BC034403
63 A/4/0.03 A	4	1	BCF0 63-4-003-GA	9004840395723		BC036103
80 A/4/0.03 A	4	1	BCF0 80/4/003-GA	9004840448757		BC038103
100 A/4/0.03 A	4	1	BCF0 100/4/003-GA	9004840448733		BC030103
100 A/4/0.3 A	4	1	BCF0 100/4/03-GA	9004840448740		BC030130








RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, SELECTIVELY PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 5 kA (8/20 μs), CHARACTERISTIC S 



BC064110

SCHRACK-INFO

- Preferably as "main RCCB", selectively for following RCCB if IdeltaN 1/3, 40 ms delayed tripping
- For protection in specific forms of non-smoothed DC residual currents
- Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40 A/4/0.1 A	4	1	BCF0 40/4/01-S/A	9004840393927		BC064110
40 A/4/0.1 A back-up fuse proof	4	1	V-BCF0 40/4/01-S/A	9004840395693		BC064410
40 A/4/0.3 A	4	1	BCF0 40/4/03-S/A	9004840393934		BC064130
63 A/4/0.1 A	4	1	BCF0 63/4/01-S/A	9004840393941		BC066110
63 A/4/0.3 A	4	1	BCF0 63/4/03-S/A	9004840393958		BC066130
80 A/4/0.3 A	4	1	BCF0 80/4/003-S/A	9004840448917		BC068130
100 A/4/0.3 A	4	1	BCF0 100/4/03-S/A	9004840422467		BC060130



■ FREQUENCY CONVERTER-PROOF RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0-U, 10 kA, 25-100 A – GENERAL INFORMATION



BC064110

■ SCHRACK-INFO

For use in systems with frequency converters. Avoids nuisance tripping by characteristic curve specially tuned to frequency converters. The currents (IF) flowing through the filter cause that the total of the currents through the RCCB is not exactly zero, and thus an unwanted shut-down occurs.

- Contact position indicator (red/green)
- Sensitivity: AC and pulse current sensitive (type A)
- Not dependent on position
- Any power supply
- Optional auxiliary contact DHi2 (BD900030)

■ TIPS & TRICKS

Frequency converters are used in many systems that require a variable speed. For example, lifts, escalators, conveyor belts, large-scale washing machines. These application often encounter problems of nuisance tripping when conventional residual current circuit breakers are being used. This has the following technical reason: fast switching operations of high voltages cause high levels of interference that propagate both over wires and as electromagnetic radiation. To eliminate this problem, a mains-side filter (also called input or EMC filter) is connected between the RCCB and the frequency converter. The interference suppression capacitors in the filter produce drainage currents to earth, which can result in unwanted false tripping of the RCCBs due to apparent residual currents. The same behaviour results if an output-side filter is connected between the frequency converter and the AC motor.

Characteristic curve description

The pattern of the characteristic curve of a 10 or 300 mA RCCB shows the following: In the range around the 50 Hz, the RCCBs trip properly (50-100% of specified $I_{\Delta N}$). In the range of approx. 100 to 300 Hz, there are frequent false tripping occurrences due to the use of frequency converters. Since converter-proof residual current circuit breakers are much less sensitive here than in the 50/60 Hz range, the system reliability is increased enormously. Therefore, we recommend the use of converter-proof types!

■ REGULATIONS


IEC/EN 61008

■ NOTE

- When using 4-pole switches with 3-phase or 2-phase wiring, follow the mounting instructions for the connection.
- The test button "T" must be operated once a month (enclosed information sticker).
- 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.

■ TECHNICAL DATA

see residual current circuit breaker 25-100 A, BCF0



RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 3 kA (8/20 μs), CHARACTERISTIC G, 10 ms DELAYED 




BC034103

SCHRACK-INFO

- Pulse current sensitive version type G/A
- Also protects in specific forms of non-smoothed DC residual currents
- Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40 A/4/0.03 A	4	1	BCF0 U-40/4/003-G/A	9004840506518		BC094103
63 A/4/0.03 A	4	1	BCF0 U-63/4/003-G/A	9004840506525		BC096103





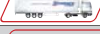

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0, 10 kA, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 5 kA (8/20 μs), CHARACTERISTIC S 



BC064110

SCHRACK-INFO

- Preferably as "main RCCB", selectively for following RCCB if IdeltaN 1/3, 40 ms delayed tripping
- For protection in specific forms of non-smoothed DC residual currents
- Most common accessories: Auxiliary contact 1 NO / 1 NC BD900002

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
40 A/4/0.1 A	4	1	BCF0 U-40/4/01-S/A	9004840393965		BC094110
40 A/4/0.3 A	4	1	BCF0 U-40/4/03-S/A	9004840393972		BC094130
63 A/4/0.1 A	4	1	BCF0 U-63/4/01-S/A	9004840393989		BC096110
63 A/4/0.3 A	4	1	BCF0 U-63/4/03-S/A	9004840393996		BC096130
80 A/4/0.3 A	4	1	BCF0 U-80/4/03-S/A	9004840422474		BC098130
100 A/4/0.3 A	4	1	BCF0 U-100/4/03-S/A	9004840422481		BC090130

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES FI-D 125 A – GENERAL INFORMATION



BD037110

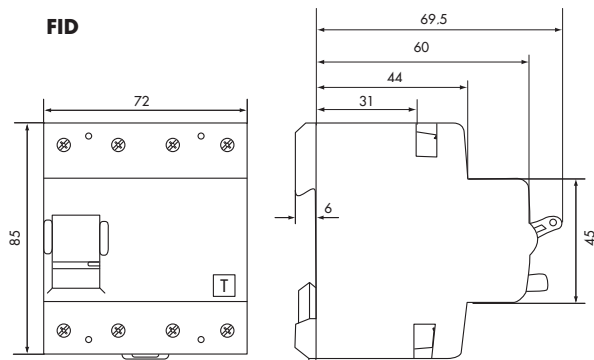
SCHRACK-INFO

- Installation width 72 mm (4 MW)
- "Tripped" position indicator
- Installation in any position
- Base plate only 85 mm

TECHNICAL DATA

No. of poles:	4-pole
Nominal voltage:	230 V AC/ 400 V AC
Frequency:	50 Hz
Max. operating voltage:	Un + 10%
Max. back-up fuse as short-circuit protection:	125 A gG
Max. back-up fuse for overload protection:	80 A gG
Rated short-circuit current Inc:	10 kA with back-up fuse
Working voltage range of the test device:	185 - 440 V AC
Surge current proof:	200 A ring-wave test 0.5µs/100 kHz, type S 300 A (8/20µs)
Ambient temperature:	-25 °C .. +40 °C
Climate resistance:	According to DIN IEC 68 Part 2-30: Humidity, heat cyclic (25 °C/55 °C, 93% / 97% RH, 28 cycles)
Shock resistance:	20g/20 ms duration
Vibration resistance:	>5g (f " 80 Hz, duration >30 min)
Degree of protection:	IP 40 (after DIN rail mounting)
Terminals:	Solid and stranded 1x1.5-50 mm ² , finely stranded up to 1x1.5-35 mm ² ; 2x1.5-16 mm ² (2-conductor connection)
Endurance:	≥ 5.000 operating cycles mechanical, ≥ 2.000 operating cycles electrical
Design specifications:	IEC/EN 61008
Power dissipation P _v /max:	28 W
Tightening torque of terminal screws:	3 Nm
Finger and hand touch safe:	Acc. to BGV A3, ÖVE EN6

DIMENSIONS






RESIDUAL CURRENT CIRCUIT BREAKER, SERIES FI-D, 125 A, AC SENSITIVE, TYPE AC



BD037110

SCHRACK-INFO

Most common accessories: Auxiliary contact 1 CO + 1 NC BD900030

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
125 A/4/0.03 A	4	1	FID4/125/003-AC	9004840229387		BD037103-A
125 A/4/0.1 A	4	1	FID4/125/01-AC	9004840229394		BD037110-A
125 A/4/0.3 A	4	1	FID4/125/03-AC	9004840229400		BD037130-A

RESIDUAL CURRENT CIRCUIT BREAKER, SERIES FI-D, 125 A, PULSE CURRENT SENSITIVE, TYPE A

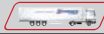


BD057130

SCHRACK-INFO

Also protects in specific forms of non-smoothed DC residual currents.

Most common accessories: Auxiliary contact 1 CO + 1 NC BD900030

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
125 A/4/0.03 A	4	1	FID4/125/003-A	9004840229417		BD057103-A
125 A/4/0.3 A	4	1	FID4/125/03-A	9004840229431		BD057130-A


RESIDUAL CURRENT CIRCUIT BREAKER, SERIES FI-D, 125 A, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 3 kA, CHARACTERISTIC S



BD067130

SCHRACK-INFO

Preferably, as "main RCCB", selectively for following RCCB if $I_{\Delta N}^{1/3}$, 40 ms delayed tripping

RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
125 A/4/0.3 A	4	1	FID4/125/03-SA	9004840229448		BD067130-A

AC/DC SENSITIVE RESIDUAL CURRENT CIRCUIT BREAKER, SERIES FID-B AND FID-B/S, TYPE B



BD874130

SCHRACK-INFO

- Identification of DC and AC residual currents up to 100 kHz!
- For installations with electronic equipment, according to VDE 0160/EN 50178, such as frequency converters, UPS systems, switching power supplies or high-frequency power converters.
- Small installation size: 4 MW for all rated currents
- High insensitivity to transient leakage and residual currents by surge current strength > 5 kA
- High electromagnetic compatibility in accordance with VDE 0664 Part 30 and VDE 0839 Part 6-2 (immunity for industrial environments)
- Most common accessories: Auxiliary contact 1 CO + 1 NC BD900030

TIPS & TRICKS

- Meets the requirements of VDE 0664 T 100 (E) for circuit breakers of type B

ACCESSORIES

Auxiliary switches/fault signal switches DHi2 (BD900030)

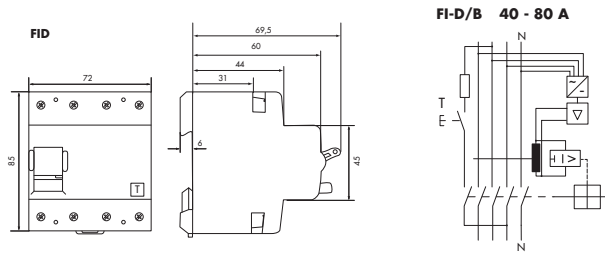
TECHNICAL DATA

Rated current:	40 A	63 A	80 A
Rated residual current:	0.03 A, 0.1 A, 0.3 A		
Rated voltage:	230 VAC / 400 VAC / 50 Hz		
Max. operating voltage:	U _n + 10 %		
Min. operating voltage			
For detection of residual currents, type A:	0 V (independent of mains voltage) ¹⁾		
For detection of residual currents, type B:	30 V AC		
Own consumption:	max. 3.5 W		
Working voltage range of the test device:	185 V AC - 440 V AC		
No. of poles:	4-pole		
Power dissipation P _v (typ.):	2.9 W	7.2 W	12 W
Max. back-up fuse as short-circuit protection:	100 A gG		
Max. back-up fuse for overload protection circuit:	40 A	63 A	63 A
Tripping times FI-D/B:	1 x I _{DN} ≤ 300 ms; 5 x I _{DN} ≤ 40 ms		
Tripping times FI-D/BS:	1 x I _{DN} > 130 ms; 5 x I _{DN} > 50 ms ≤ 150 ms		
Rated short-circuit current:	10 kA		
Surge current proof:	5 kA, lightning current 8/20 μs		
Degree of protection:	IP 40 (after DIN rail mounting)		
Mounting position:	any		
Input side:	Terminals 1, 3, 5, 7, N		
Ambient temperature:	-25 °C to +40 °C		
Terminals			
Solid round conductors:	1 x 1.5 - 50 mm ² (1-conductor terminal); 2 x 1.5 - 16 mm ² (2-conductor terminal)		
Stranded:	1 x 1.5 - 50 mm ² (1-conductor terminal); 2 x 1.5 - 16 mm ² (2-conductor terminal)		
Finely stranded:	1 x 1.5 - 50 mm ² (1-conductor terminal); 2 x 1.5 - 16 mm ² (2-conductor terminal)		
Tightening torque of screws:	3 Nm		
Design specifications:	DIN VDE 0664 T10, E DIN VDE 0664 T100, EN 61008		

¹⁾ Note: Even at voltages below 30 V AC, tripping by residual current of type AC and A is ensured by an operation that is independent of the mains voltage.

AC/DC SENSITIVE RESIDUAL CURRENT CIRCUIT BREAKER, SERIES FID-B AND FID-B/S, TYPE B – continued

DIMENSIONS AND WIRING DIAGRAMS



RATED CURRENT/POLES/ RATED RESIDUAL CURRENT	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
AC/DC SENSITIVE, TYPE B						
40 A/4/0.03 A	4	1	FI-D/B 4/40/003-B/G	9004840528138		BD874103
40 A/4/0.1 A	4	1	FI-D/B 4/40/01-B	9004840421668		BD874110
40 A/4/0.3 A	4	1	FI-D/B 4/40/03-B	9004840421699		BD874130
63 A/4/0.03 A	4	1	FI-D/B 4/63/003-B/G	9004840529852		BD876103
63 A/4/0.1 A	4	1	FI-D/B 4/63/01-B	9004840421675		BD876110
63 A/4/0.3 A	4	1	FI-D/B 4/63/03-B	9004840421705		BD876130
80 A/4/0.03 A	4	1	FI-D/B 4/80/003-B/G	9004840615746		BD878103
80 A/4/0.1 A	4	1	FI-D/B 4/80/01-B	9004840421682		BD878110
SELECTIVELY AC/DC SENSITIVE, TYPE B/S						
40 A/4/0.3 A	4	1	FI-D/B 4/40/03-S/B	9004840421729		BD864130
63 A/4/0.3 A	4	1	FI-D/B 4/63/03-S/B	9004840421736		BD866130



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RCCB TRIPPING RELAYS, PULSE CURRENT SENSITIVE, SELECTIVE



BC900203



BX900310

SCHRACK-INFO

Preferably, as "main RCCB", selectively for following RCCB if $I_{\Delta N}$ 1/3, 40 ms delayed tripping.

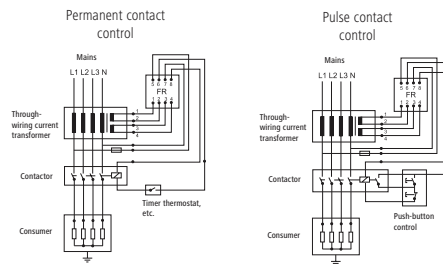
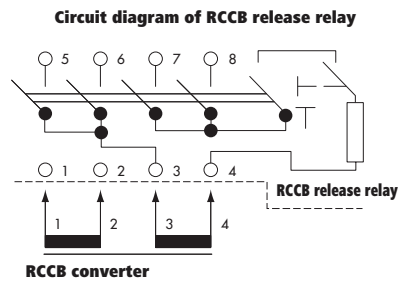
Selection of residual current relay:

The RCCB release relay is selected based on the rated residual current $I_{\Delta N}$. For the BCFR-01/03-S/A type, this can be selected by the number of converter primary windings. If a rated residual current of 0.1 A is required, the lines must be passed through the converter three times.

BREAKING CAPACITY OF RELAY CONTACTS

Terminals 5 - 6, 7 - 8	25 A
For purely ohmic load	16 A at 230 V
For use of AC 15	10 A at 400 V

CIRCUIT DIAGRAMS



DESCRIPTION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
TRIPPING UNIT						
RCCB release relay 0.3 A f. converter W2/150 A	4	1	BCFR2-03-S/A	9004840395747		BC900203
RCCB release relay 1 A f. converter W2/150 A	4	1	BCFR2-1-S/A	9004840395785		BC900210
RCCB release relay 0.3 A f. converter W3/400 A	4	1	BCFR3-03-S/A	9004840395754		BC900303
CONVERTER						
RCCB converter 150 A f. RCCB release relay BCFR-2	-	1	W2-S/A	9004840182682		BX900210
RCCB converter 400 A f. RCCB release relay FR-3	-	1	W3-S/A	9004840182699		BX900310



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TRIPPING RELAY, CONVERTER-PROOF, PULSE-CURRENT SENSITIVE, SELECTIVE



BC990015



BX900022

SCHRACK-INFO

- For use in systems with frequency converters.
- Most common accessories:
Auxiliary contact 1 CO + 1 NC BD900030

REGULATIONS





IEC/EN 61008

TECHNICAL DATA

Combination options for release relay and converter

Type of release relay	Nominal residual current	Converter type
BCFR2-01/03-U	0.1 / 0.3 A	W2-U, max. 150 A, dia. 60 mm
BCFR3-01/03-U	0.1 / 0.3 A	W3-U, max. 400 A, dia. 130 mm
BCFR2-1-U	1 A	W2-U, max. 150 A, dia. 60 mm
BCFR3-1-U	1 A	W3-U, max. 400 A, dia. 130 mm

- Surge current-proof 5 kA (8/20 μs)
- Selective, pulse current sensitive
- Ambient temperatures: -25 °C to +40 °C
- Rated residual current: 100/300 mA, 1 A
- For FR2-01/03-U and FR3-01/03-U, the rated residual current can be selected by the number of converter passes.
 - 1 converter pass $I_n = 0.3 \text{ A}$
 - 3 converter passes $I_n = 0.1 \text{ A}$

DESCRIPTION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
TRIPPING UNIT						
FI-U relay 0.1/0.3 A	4	1	BCFR2-01/03-U	9004840395761		BC990015
FI-U relay 0.1/0.3 A	4	1	BCFR3-01/03-U	9004840395778		BC990016
FI-U relay 1 A	4	1	BCFR2-1-U	9004840395808		BC990017
FI-U relay 1 A	4	1	BCFR3-1-U	9004840395815		BC990018
CONVERTER						
RCCB converter 150 A f. RCCB release relay BCFR2-U	-	1	W2-U	9004840265668		BX900021
RCCB converter 400 A f. RCCB release relay BCFR3-U	-	1	W3-U	9004840265675		BX900022



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- Order desired products easily



■ RCCBS – RESIDUAL CURRENT ADD-ON BLOCK, SERIES BB – GENERAL INFORMATION



■ SCHRACK-INFO

- Line voltage independant tripping
- For subsequent mounting onto all BM series MCBs

■ TIPS & TRICKS

- The test button “T” must be operated once a month (enclosed information sticker).
- 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.

■ REGULATIONS

IEC/EN 610080

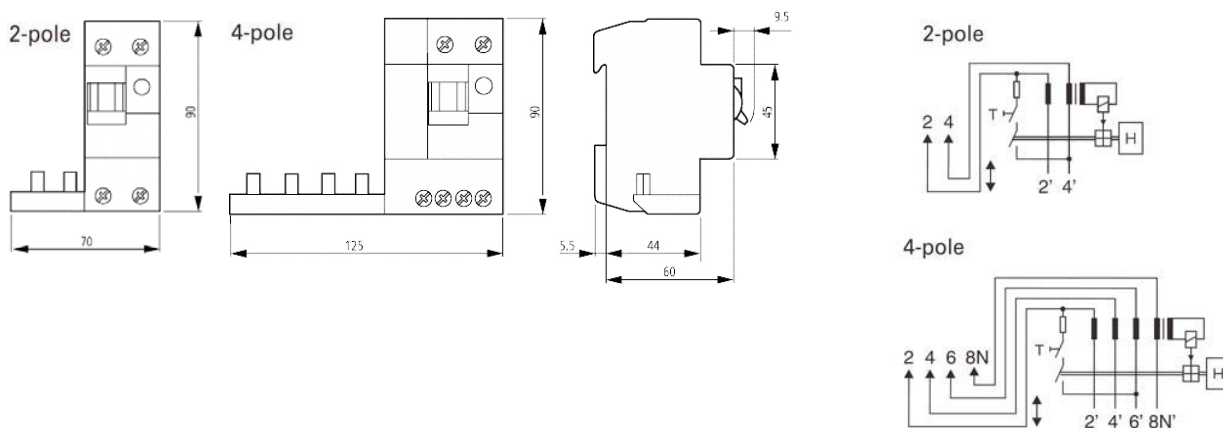
■ ACCESSORIES

- Auxiliary contact
- Signal contact
- Automatic remote switching unit (FSA)
- Busbar
- Terminal cover

■ TECHNICAL DATA






Rated voltage:	230/400 V AC 4-pole, 230 V AC 2-pole, 50 Hz
Permissible ambient temperature:	-25 °C to +40 °C
Rated current:	≤ 40 A, ≤ 63 A
Voltage limits:	196 - 440 V
Short-circuit resistance:	same as connected MCB
Terminals:	lift terminals on both sides, 1-25 mm ² solid, 1x16 mm ² stranded
Finger and hand touch safe:	According to BGV A3, ÖVE-EN 6
Rated residual current:	30 mA, 300 mA (others available on request)
Endurance:	Electrical ≥ 4.000 operating cycles, mechanical ≥ 20.000 operating cycles
Lamp strength:	Max. 20 electronic ballasts per phase, max. 60 per RCCB (typical, commercially available)
Special snap-on mounting:	For DIN rail EN 50 022
Surge current proof:	>250 A (8/20 μs) >5 kA (8/20 μs) type S
Tripping times:	Non-delayed At least 40 ms delayed (type S), selectively tripping
Degree of protection:	IP20 or IP40 covered

■ DIMENSIONS AND WIRING DIAGRAMS



RESIDUAL CURRENT ADD-ON BLOCK, SERIES BB, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF >250 A (8/20 μs)



RATED CURRENT	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
0.03 A	2	402/003-A	9004840268249		BB044203
0.3 A	2	402/03-A	9004840268263		BB044230
0.03 A	2	404/003-A	9004840102512		BB044403
0.3 A	2	404/03-A	9004840102505		BB044430
0.03 A	2	632/003-A	9004840268270		BB046203
0.03 A	2	634/003-A	9004840102529		BB046403
0.3 A	2	634/03-A	9004840102536		BB046430

RESIDUAL CURRENT ADD-ON BLOCK, SERIES BB, PULSE CURRENT SENSITIVE, TYPE A, SURGE CURRENT PROOF 5 kA (8/20 μs), CHARACTERISTIC S



RATED CURRENT	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
0.3 A	2	402/03-S	9004840151282		BB074230
0.3 A	2	404/03-S	9004840151305		BB074430
0.1 A	2	632/01-S	9004840151312		BB076210
0.3 A	2	632/03-S	9004840151329		BB076230
0.1 A	2	634/1-S	9004840222760		BB076400
0.3 A	2	634/03-S	9004840151343		BB076430



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AUXILIARY SWITCH BD-H FOR RCCB, SERIES PRIORI, BCF AND BD-H



BD900002

SCHRACK-INFO

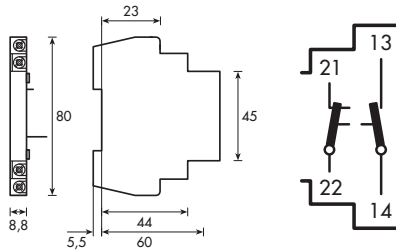
- Version: screwed
- Contacts: 1 NC + 1 NO
- Width: 0.5 MW
- Retrofittable, left mountable
- Not compatible with type B or 125 A

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167

TECHNICAL DATA

Thermal rated current	8 A
Rated operating voltage U_e	440 V
Rated insulation voltage U_i	440 V
U_b minimal	For each insulation path 24 V
I_b minimal	For each insulation path 0.5 A
Complies with	IEC / EN 60947-5-1, IEC / EN 62019
Utilisation category AC 13	6 A/250 V 2 A/440 V
Utilisation category DC 13	4 A/60 V 0.5 A/230 V
Maximum permissible back-up fuse	8 A gG or SI-H
Terminal cross-section	0.5–2.5 mm ²

DIMENSIONS AND WIRING DIAGRAMS



FOR PROTECTIVE SWITCHGEAR	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
FI-BD, BCF0	0.5	10	BD-H	9004840001334		BD900002



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TRIP SIGNAL CONTACT BD-HR



BD900022

SCHRACK-INFO

- Version: screwed
- 1 CO (manual operation and tripped functions) + 1 CO (only tripped function)
- 2 CO (manual operation and tripped functions)
- Retrofittable, mountable on the right for RCCB series BCF0 and BCF6, on the left for series BMS0, BMS6, BMS4, MP, RCBO – BOLF
- Indication white/blue for electrical tripping
- Test button for electrical tripping
- Manual operation (T-handle)
- Width: 0.5 MW

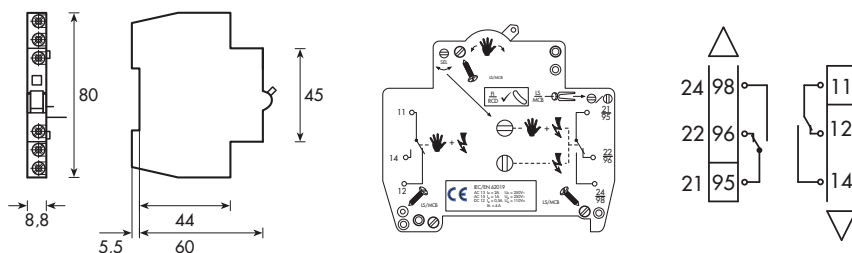
TECHNICAL DATA

Thermal rated current I_{th}	4 A
Rated insulation voltage U_i	250 V AC
Rated operating voltage U_e	250 V AC
Minimum operating voltage for each contact U_{min}	5 V DC
Minimum operating current I_{min}	10 mA DC
Complies with	IEC/EN 60947-5-1
Utilisation category AC 13	3 A, 250 V AC
Utilisation category AC 15	2 A, 250 V AC
Utilisation category DC 12	110 V/0.5 A, 220 V/0.25 A
Maximum back-up fuse	4 A gG or SI-H
Terminal cross-section	0.5–2.5 mm ²

“ELECTRICAL TRIP” FUNCTIONAL TEST

The contact function of the changeover switch 95-96/98 can be checked by pressing the test button “T”. In this case, the colour of the trip indication changes from white to blue, just like after a “real” electrical trip. A manual off operation does not modify the trip indication in the “SEL position is perpendicular to DIN rail”.

DIMENSIONS AND WIRING DIAGRAMS



FOR PROTECTIVE SWITCHGEAR	MW PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
RCCB-BD, MCB-BS, RCBO, BOLF, BMS0, BCF0	0.5 10	BD-HR	9004840201888		BD900022



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AUXILIARY SWITCH, SERIES DHI 2 FOR RCCB BD



BD900030

SCHRACK-INFO

To facilitate remote monitoring of RCCB circuits and for control purposes. The auxiliary switch does not affect the function of the residual current circuit breaker. The auxiliary switch can be retrofitted by the user and can be mounted on the left. It can be preset as a signalling switch (trip indicator) or an auxiliary switch (on/off indicator). Test function possible.

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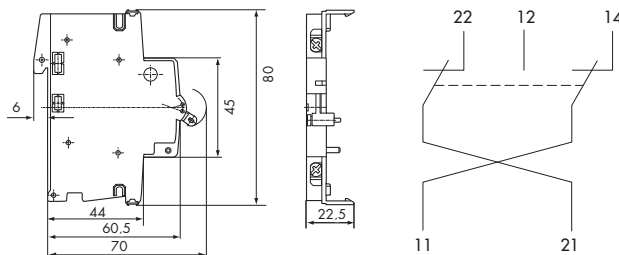
TIPS & TRICKS


The test function make it possible to switch the auxiliary contacts also without an RCCB, thus testing the operation of the auxiliary switch without interrupting the main circuit. For this, the connecting shaft of the auxiliary switch to the switching handle of the RCCB is pulled out. Then the test function can be triggered through the test slot labelled "Test" on the front of the auxiliary switch using a small screwdriver

TECHNICAL DATA

- Type DHI 2 auxiliary switch suitable for FI-D 125 A and FI-D/B
- Capacity AC 11: 230 V AC / 6 A
DC 11: 230 V DC / 1 A
- 1 CO + 1 NC, 1/2 MW
- Terminals up to 2.5 mm²
- Mounting on the left side
- Retrofittable

DIMENSIONS AND WIRING DIAGRAMS



DESCRIPTION	MW	PU	TYPE	EAN CODE	AVAILABLE	ORDER NO.
1 CO + 1 NC suitable for FI-D 125 A and FI-D/B	0.5	1	DHi 2	9004840231137		BD900030



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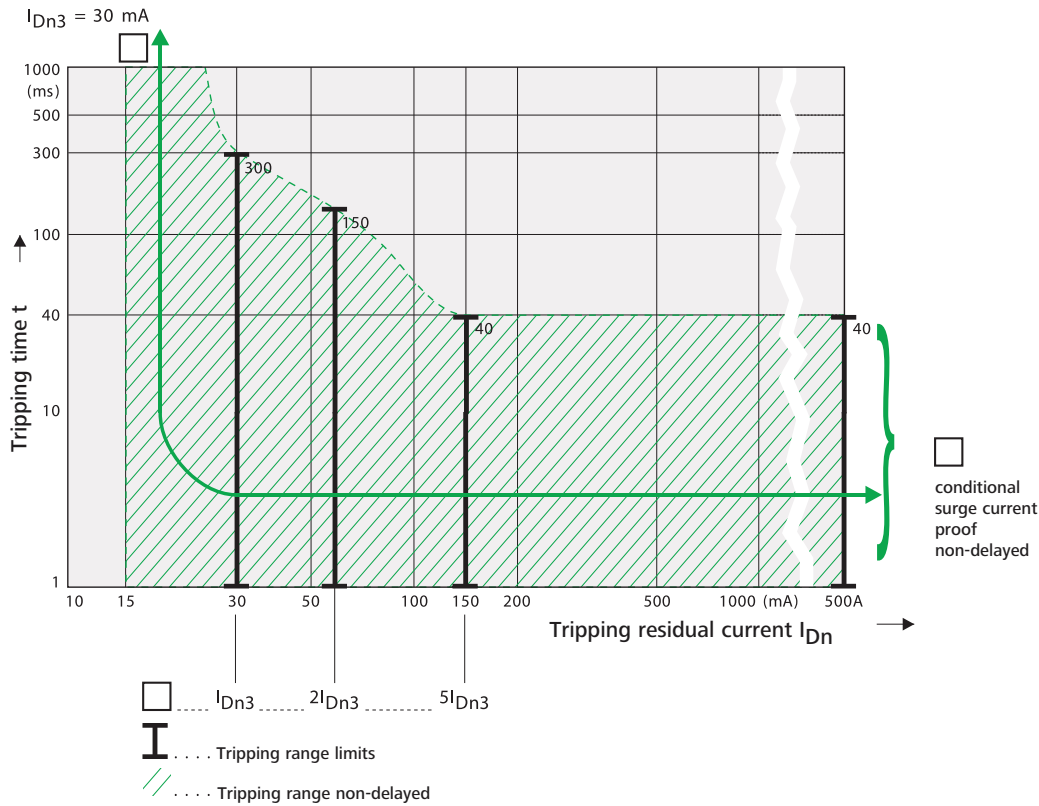


Order no. blue: on stock, usually ready for delivery on the day of order!

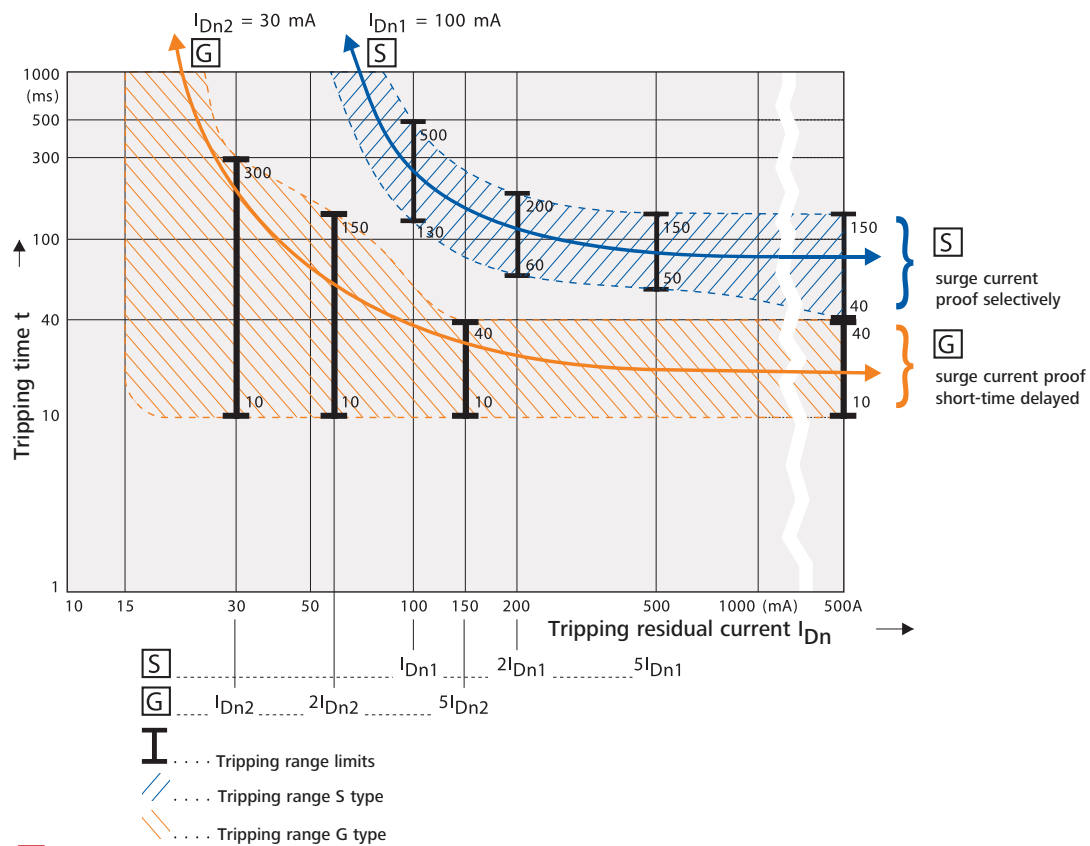
TECHNICAL DATA FOR RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCF0 AND BCF6

CHARACTERISTIC CURVES

Typical residual current circuit breaker tripping characteristic, non-delayed



Typical residual current circuit breaker tripping characteristics [S] [G], delayed



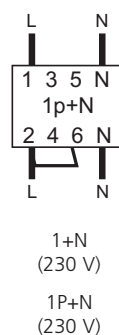
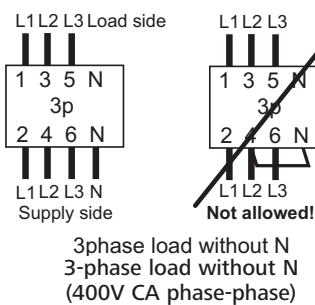
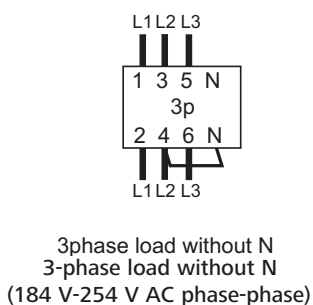
POWER DISSIPATION SERIES PRIORI

TYPE	ORDER NUMBER	I _n (A)	I _{Δn} (mA)	TYPE / VERSION	P (W)
V-BCP0 40/4/003-G/A	BCP34403	40	30	A / G	3.8
V-BCP0 63/4/003-G/A	BCP36603	63	30	A / G	8.5
V-BCP0 80/4/003-G/A	BCP38803	80	30	A / G	12.9
V-BCP0 63/4/03-G/A	BCP36630	63	300	A / G	8.5
V-BCP0 80/4/03-G/A	BCP38830	80	300	A / G	12.9
V-BCP0 63/4/003-R	BCPR6603	63	30	A / R	8.5
V-BCP0 40/4/03-S/A	BCP64430	40	300	A / S	3.8
V-BCP0 63/4/03-S/A	BCP66630	63	300	A / S	8.5
V-BCP0 80/4/03-S/A	BCP68830	80	300	A / S	12.9
V-BCP0 U-40/4/003-G/A	BCP94403	40	30	A / G	3.8

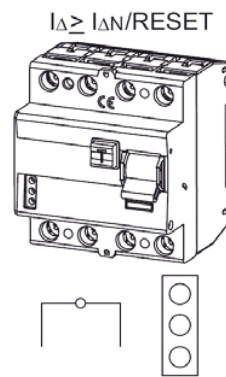
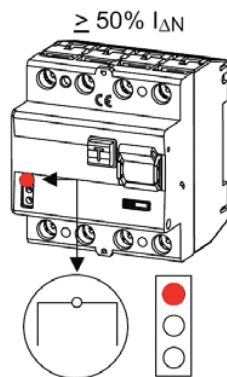
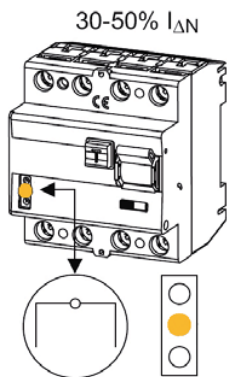
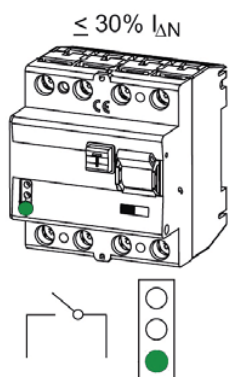
POWER DISSIPATION, SERIES BCFO AND BCF6

Type	I _n [A]	I _{Δn} [mA]	Type	P [W]
BCFO-25/2/..	25	30	AC	1.3
BCFO-25/2/..	25	100,300,500	AC	2.0
BCFO-25/2/..	25	30	A	1.3
BCFO-25/2/..	25	100,300	A	2.0
BCFO-25/2/..	25	30,100	G	1.3
BCFO-40/2/..	40	30	AC	5.8
BCFO-40/2/..	40	100,300,500	AC	5.4
BCFO-40/2/..	40	30	A	5.8
BCFO-40/2/..	40	100,300,500	A	5.4
BCFO-40/2/..	40	30,100	G	5.8
BCFO-40/2/..	40	100	S	5.8
BCFO-40/2/..	40	300	S	5.4
BCFO-63/2/..	63	30	AC	9.7
BCFO-63/2/..	63	100,300,500	AC	7.2
BCFO-63/2/..	63	30	A	9.7
BCFO-63/2/..	63	100,300,500	A	7.2
BCFO-25/4/..	25	30	AC	3.1
BCFO-25/4/..	25	100,300,500	AC	2.8
BCFO-25/4/..	25	30	A	3.1
BCFO-25/4/..	25	100,300,500	A	2.8
BCFO-25/4/..	25	100,300	S	2.8
BCFO-25/4/..	25	100	S/A	2.8
BCFO-40/4/..	40	30	AC	9.6
BCFO-40/4/..	40	100,300,500,	AC	8.4
BCFO-40/4/..	40	30	A	9.6
BCFO-40/4/..	40	100,300,500,	A	8.4
BCFO-40/4/..	40	30	G	9.6
BCFO-40/4/..	40	100	G	8.4
BCFO-40/4/..	40	30	G/A	9.6
BCFO-40/4/..	40	100,300	S	8.4
BCFO-40/4/..	40	100,300	S/A	8.4
BCFO-63/4/..	63	30	AC	13.4
BCFO-63/4/..	63	100,300,500	AC	10.5
BCFO-63/4/..	63	30,100,300,500	A	10.5
BCFO-63/4/..	63	30	G	13.4
BCFO-63/4/..	63	100	G	10.5
BCFO-63/4/..	63	30	G/A	13.4
BCFO-63/4/..	63	100,300	S	10.5
BCFO-63/4/..	63	100,300	S/A	10.5
BCFO-40/4/..-VF	40	30	AC	5.4
BCFO-40/4/..-VF	40	100	AC	4.2
BCFO-40/4/..-VF	40	30	A	4.2
BCFO-40/4/..-VF	40	30	G	5.4
BCFO-40/4/..-VF	40	30	G/A	5.4
BCFO-40/4/..-VF	40	100,300	S/A	4.2
BCFO-40/4/..-U	40	100,300	U	8.4
BCFO-40/4/..-U/VF	40	100,300	U	4.2
BCFO-40/4/..-U/VF	63	100,300	U	10.5

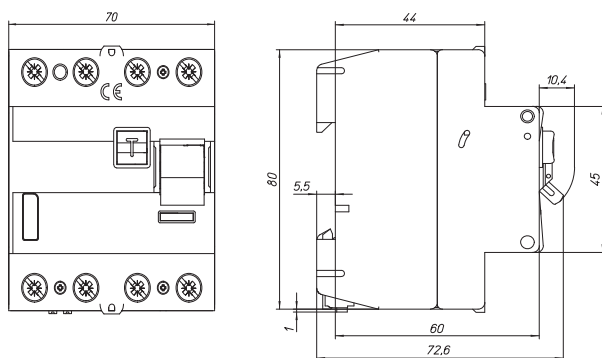
CIRCUIT DIAGRAMS, SERIES PRIORI



SIGNALLING AND AUXILIARY CONTACT, SERIES PRIORI

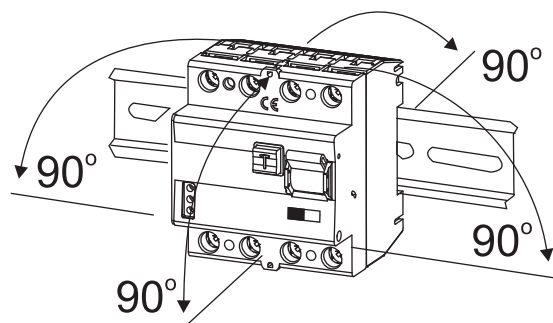


DIMENSIONS, SERIES PRIORI, BCF0 AND BCF6



Dimensions W x H x D:	70 mm x 80 mm x 63 mm
Weight:	0.32 kg
Degree of protection:	IP40
Special snap-on mounting:	for DIN rail EN 50 022

MOUNTING POSITION, SERIES PRIORI, BCF0 AND BCF6



INFLUENCE OF AMBIENT TEMPERATURE ON THE MAXIMUM PERMISSIBLE CONTINUOUS CURRENT (A) – SERIES BCF0 AND BCF6

Ambient temperature	Version											
	16A 2-pole	16A 4-pole	25A 2-pole	25A 4-pole	40A 2-pole	40A 4-pole	63A 2-pole	63A 4-pole	80A 2-pole	80A 4-pole	100A 2-pole	100A 4-pole
40°	16	16	25	25	40	40	63	63	80	80	100	100
45°	14	14	21	22	37	37	59	59	76	76	95	95
50°	11	11	18	19	33	34	55	55	72	72	90	90
55°	9	9	14	16	30	31	50	50	68	68	85	85
60°	-	-	-	-	26	27	45	45	64	64	80	80

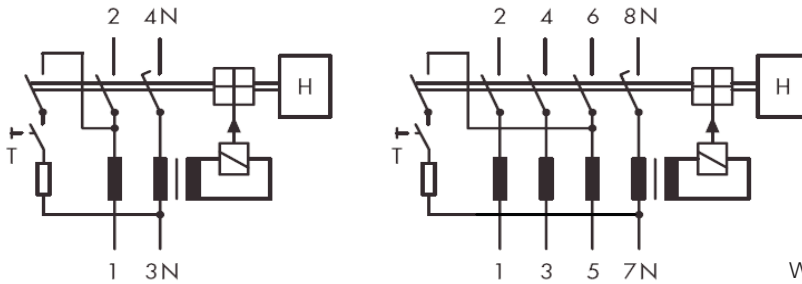
Note: It is important to ensure that these values are not exceeded.

16A and 25A RCCBs cannot be used at 60 °C.

NOTE

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.

WIRING DIAGRAM SERIES BCF0 AND BCF6



Weight: 2-pole: 0.22 kg, 4-pole 0.32 kg
Degree of protection: IP20 or IP40 covered

POSSIBLE CONNECTION FOR SERIES BCF0 AND BCF6

Terminals 35 mm²

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	+	-	-	-	-	-

Conductor cross-section	Number of single-conductors, flexible Cu conductors					
[mm ²]	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	Combinations of different cross-sections of flexible Cu conductors with each other									
[mm ²]	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!

TECHNICAL DATA FOR RESIDUAL CURRENT CIRCUIT BREAKER, SERIES BCFR

TECHNICAL DATA

Residual current release relay:	
Tripping:	Selectively switching off, 40 ms delayed
Surge current proof:	5 kA (8/20 μs)
Pulse current sensitive	
Max. nominal current:	400 A
Ambient temperatures:	-25 °C to +40 °C
Rated residual current:	(100 mA) 300 mA, 1 A
Rated voltage:	230/400 V, 50 Hz
Rated current of the relay contacts:	25 A/400 V AC 16 A/230 V AC 15
Climate strength:	According to IEC / EN 61008
Degree of protection:	IP 40 in mounted condition
Endurance:	Electrical: 4,000 operating cycles Mechanical: 20,000 operating cycles
Terminals:	Clamp and lift terminals on both sides, 1-35 mm ² solid
Finger and hand touch safe:	Acc. to VBG4, ÖVE EN6
External converters:	
Maximum cable diameter:	60 mm (type W2, W2-U) 130 mm (type W3, W3-U)
Control cable:	Min. 1.5 mm ² (W2, W2-U) Max. 2.5 mm ² (W3, W3-U)

RATED RESIDUAL CURRENT ADJUSTMENT, SERIES BCFR

Rated residual current adjustment 0.1 or 0.3 A by number of converter primary windings (for BCFR2-03-S/A, BCFR3-03-S/A, BCFR2-03-U and BCFR3-03-U).

Residual current release relay	Converter	Rated residual current $I_{\Delta N}$ (A)	Converter primary windings	Maximum cable diameter (mm)
BCFR2-03-U (S/A)	FR2	0.1	3	60
		0.3	1	60
BCFR3-03-U (S/A)	FR3	0.1	3	130
		0.3	1	130
BCFR2-1-U (S/A)	FR2	1.0	1	60
BCFR3-1-U (S/A)	FR3	1.0	1	130

ROUTING SCHEME

All of the conductors necessary for operation, L1, L2 and L3, including the neutral conductor N, must be passed through the converter as follows:

