



DATA SHEET

F200 B Type



Cutting-edge features: safety, service continuity, compactness, integration. These are the characteristics of the F200 B RCCBs (residual current circuit breakers), the state-of-the-art technology by ABB which has been providing the best solutions for residential, commercial and industrial installations for over 120 years.

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F202 B and F204 B:
residual current
circuit breakers

Type B RCCBs can be adapted perfectly to all types of installation requirements and application fields.

F200 B is compliant to product standard IEC/EN 61008 and EN 62423 and features the following main technical characteristics:

- Rated current: from 16 A to 125 A
- Sensitivity: 30, 300 and 500 mA
- Operating temperature: -25 °C to +70 °C (for system up to 32 A)
- Pollution degree 3 (for 16–63 A devices, 30–300 mA)

Applications benefits:

- Terminals equipped with fail safe feature to avoid improper installation
- Supply possible both from top and bottom and in parallel with cables and busbars thanks to terminals composed by two different seats: a front seat for 25 mm² cables and a back seat for 10 mm² busbars
- Compact solution with just 2 Pole devices in 2 DIN Module
- Compatible with a wide range of accessories with lots of different functions
- Great performance over time thanks to high immunity against unwanted tripping and robustness to operating environment
- Certified quality and compliance to worldwide product standard



RCCBs

F 200 series - B type technical features

				F200 B Type		F200 B Type high ratings					
				F202 B 16-63 A		F204 B 25-63 A		F204 B 80-125 A			
				IEC/EN 61008-1, IEC/EN 61008-2-1, EN 62423							
Electrical features	Standards			IEC/EN 61008-1, IEC/EN 61008-2-1, EN 62423							
	Type (wave form of the earth leakage sensed)			B		B, B-S		B			
	Poles			2P		4P		4P			
	Rated current I _n			A	16, 25, 40, 63		25, 40, 63		80, 125		
	Rated sensitivity I _{Δn}			A	0,03 - 0,3		0,03 - 0,3 - 0,5		0,03 - 0,3 - 0,5		
	Rated voltage U _e			V AC	230		230/400		230/400		
	Insulation voltage U _i			V	440		440 - 500 ¹		400		
	Operating voltage of circuit test U _t			IEC/EN	V	110 - 253 V AC 170 - 253 V AC (30 mA)		110 - 253 V AC 170 - 253 V AC (30 mA)		150 - 250 V AC (80 A) 200 - 250 V AC (80 A, 30 mA) 200 - 440 V AC (125 A) 250 - 440 V AC (125A, 30 mA)	
	Min. operating voltage for detecting Type A/AC/F residual currents			V AC	0		0		0		
	Min. operating voltage for detecting Type B residual currents			V AC	50		50		50		
	Rated frequency			Hz	50/60		50/60		50		
	Frequency range of residual current			kHz	2		2		100		
	Rated conditional short-circuit current Inc=I _Δ ³			SCPD - fuse gG/gL 100A	kA	10		10		10 (fuse gG 125 A)	
	Rated residual breaking capacity I _{Δn} =Im				kA	1		1		125 A: 1,25 80 A: 1	
	Rated impulse withstand voltage (1.2/50) U _{imp}				kV	4		4		4	
	Dielectric test voltage at ind. freq. for 1 min.				kV	2,5		2,5		2,5	
	Overvoltage category				III, disconnector abilities						
	Surge current resistance (wave 8/20)			A	3.000		3.000 - 5.000 (B S)		3.000 - 5.000 (B S)		
	Maximum electronic consumption			W	0,3		1,2 (3,5 ¹)				
Mechanical features	Toggle			Blue sealable in ON-OFF							
	Contact position indicator (CPI)			yes		yes		yes			
	Electrical life			10.000		10.000		2.000			
	Mechanical life			20.000		20.000		5.000			
	Protection degree			housing terminals	IP4X IP2X		IP4X IP2X		IP4X IP2X		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30			°C/ RH	28 cycles with 55°C/90-96% and 25°C/95-100%						
	Ambient temperature			IEC	°C	-25...+70 (for system current ≤ 32 A) ⁴ -25...+65 for system current = 40 A ⁴ -25...+50 for system current = 63 A ⁴ For other system current see derating table				-25...+40 ⁵	
	Storage temperature			°C	40...+70						
	Terminal Type			Failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) (cage for I _n > 63 A) ²							
	Min/Max Terminal size top/bottom for cable			IEC	Mm ²	1 - 25		1 - 25		50	
Installation	Terminal size top/bottom for busbar			IEC	Mm ²	10/10		10/10			
	Tightening torque			IEC	Nm	2,8				3	
	Tool			Flat tip PZ2							
	Mounting			Any position on DIN rail EN 60715 (35 mm) by means of fast clip device							
	Supply			Top/bottom							
	Withdrawal from busbar			It is possible without using any tools only from the bottom						no	
Dimensions and weight	Dimensions (H x D x W)			2P	Mm	85 x 69 x 35		85 x 69 x 70		85 x 69,5 x 72	
	Weight			2P	g	200		380		460	
Combination with auxiliary elements ¹	Combinable with:										
	auxiliary contact			yes		yes		yes		no	
	signal contact/auxiliary switch			yes		yes		yes		yes	
	motor operating device			yes		yes		yes		no	
	shunt trip			yes		yes		yes		no	
undervoltage release			yes		yes		yes		no		

¹ 500 mA devices² Prior to connection of aluminium conductors (≥ 4 mm²) ensure that their contact points are cleaned, brushed and coated with grease³ For S750-E 63 A, S750DR-E/K 100 A and other SCPD back up coordination values are available.⁴ Constant temperature.⁵ With daily average < 35°C.



F200 B TYPE DATA SHEET

RCCBs

F 200 series - B type   



F202 B



F204 B

F200 B Type from 16 to 63 A

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
				Type code	Order code		
2	30	16	341154	F202 B-16/0,03	2CSF202568R1160	0,220	1
		25	341253	F202 B-25/0,03	2CSF202568R1250	0,220	1
		40	341352	F202 B-40/0,03	2CSF202568R1400	0,220	1
		63	341154	F202 B-63/0,03	2CSF202568R1630	0,220	1
	300	16	341451	F202 B-16/0,3	2CSF202568R3160	0,220	1
		25	341550	F202 B-25/0,3	2CSF202568R3250	0,220	1
		40	341659	F202 B-40/0,3	2CSF202568R3400	0,220	1
		63	341758	F202 B-63/0,3	2CSF202568R3630	0,220	1
4	30	25	341857	F204 B-25/0,03	2CSF204568R1250	0,380	1
		40	341956	F204 B-40/0,03	2CSF204568R1400	0,380	1
		63	342052	F204 B-63/0,03	2CSF204568R1630	0,380	1
	300	25	342151	F204 B-25/0,3	2CSF204568R3250	0,380	1
		40	342250	F204 B-40/0,3	2CSF204568R3400	0,380	1
		63	342359	F204 B-63/0,3	2CSF204568R3630	0,380	1
	300 S	40	342458	F204 B S-40/0,3	2CSF204868R3400	0,380	1
		63	342557	F204 B S-63/0,3	2CSF204868R3630	0,380	1
	500	40	776932	F204 B-40/0,5 ²	2CSF204592R4400	0,380	1
		63	347637	F204 B-63/0,5 ²	2CSF204592R4630	0,380	1
	500 S	40	357834	F204 B S-40/0,5 ²	2CSF204892R4400	0,380	1
		63	347538	F204 B S-63/0,5 ²	2CSF204892R4630	0,380	1
2	30	25	356356	F202 B-25/0,03 U	2CSF202568U1250	0,220	48
4	30	25	356158	F204 B-25/0,03 U	2CSF204568U1250	0,380	24
		40	355953	F204 B-40/0,03 U	2CSF204568U1400	0,380	24
		63	356059	F204 B-63/0,03 U	2CSF204568U1630	0,380	24
	300	63	356257	F204 B-63/0,3 U	2CSF204568U3630	0,380	24

F200 B Type high ratings

Number of poles	Rated residual current I Δ n mA	Rated current In A	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
				Type code	Order code		
4	30	80	988601	F204B-80/0,03 ²	2CSF204501R1800	0,46	1
		125	988700	F204B-125/0,03L ^{1,2}	2CSF204523R1950	0,46	1
	300	80	989103	F204B-80/0,3 ²	2CSF204501R3800	0,46	1
		125	989202	F204B-125/0,3L ^{1,2}	2CSF204523R3950	0,46	1
	300 S	125	989509	F204BS-125/0,3L ^{1,2}	2CSF204823R3950	0,46	1
	500	125	730439	F204B-125/0,5L ^{1,2}	2CSF204523R4950	0,46	1
	500 S	125	731238	F204BS-125/0,5L ^{1,2}	2CSF204823R4950	0,46	1

¹ Left-sided neutral pole

² No-self-diagnostics

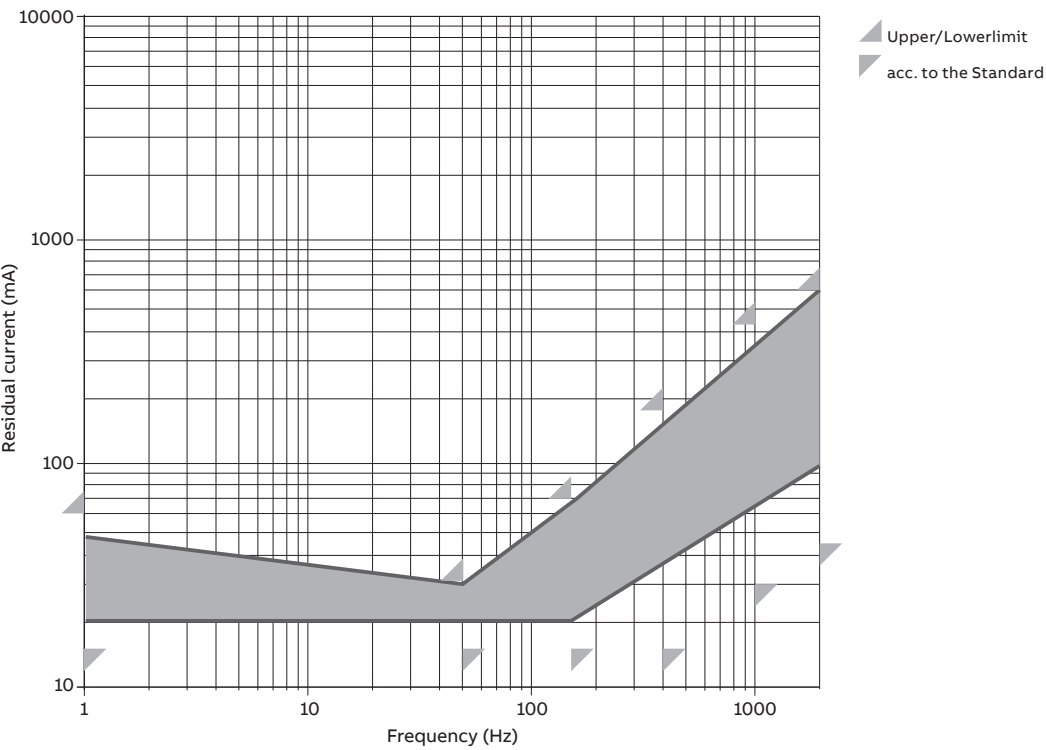


F204 B 80, 125 A

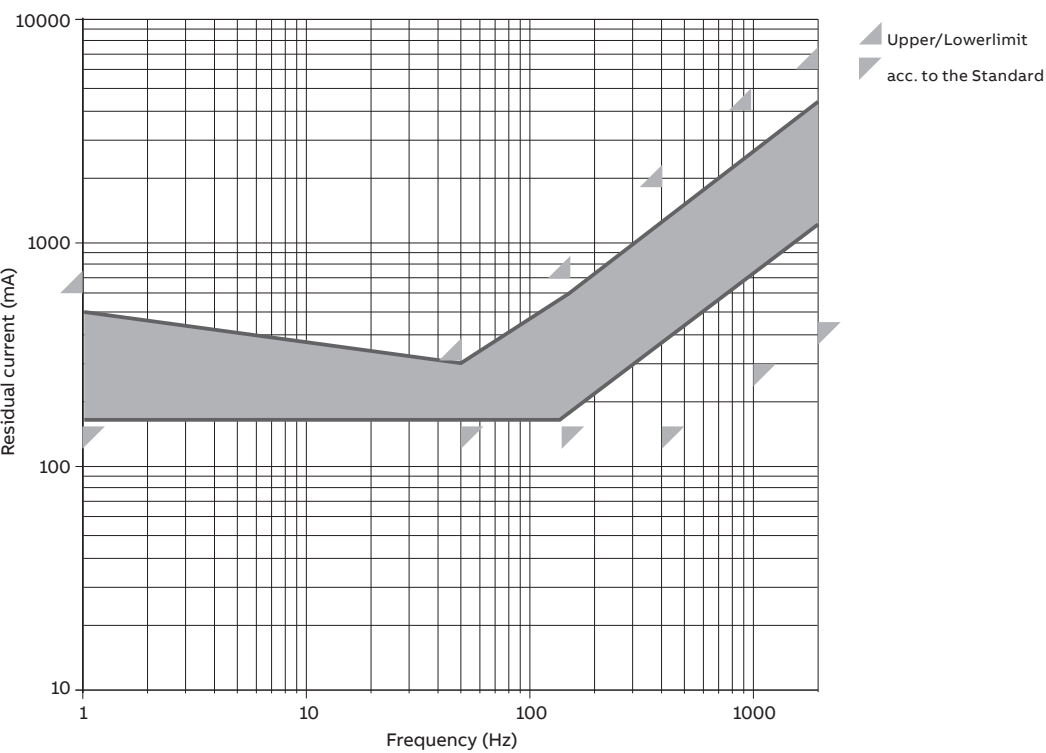
F200 B Type from 16 to 63 A

Residual current tripping thresholds according to frequency

F200 B 30 mA



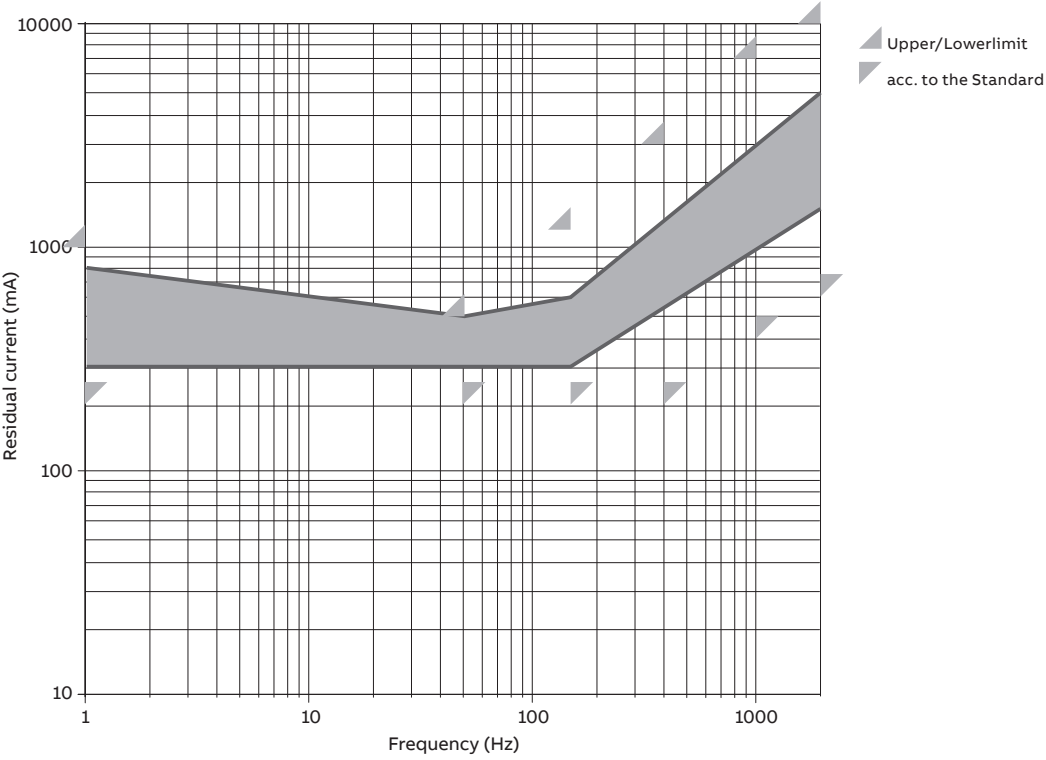
F200 B 300 mA





F200 B TYPE DATA SHEET

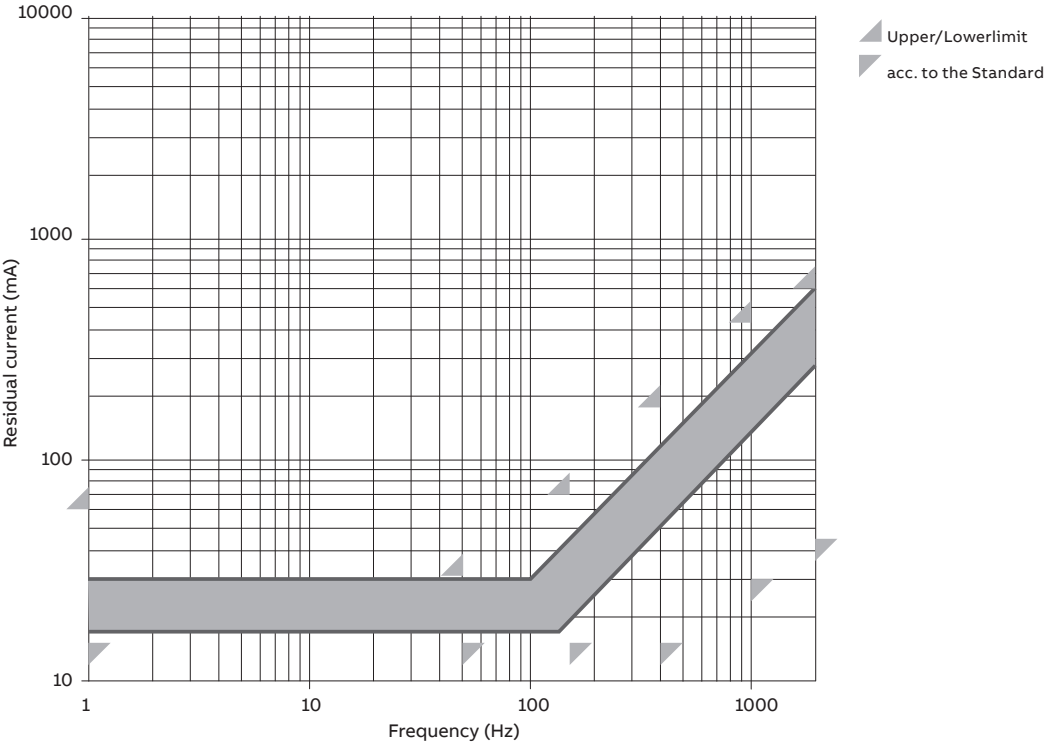
F200 B 500 mA



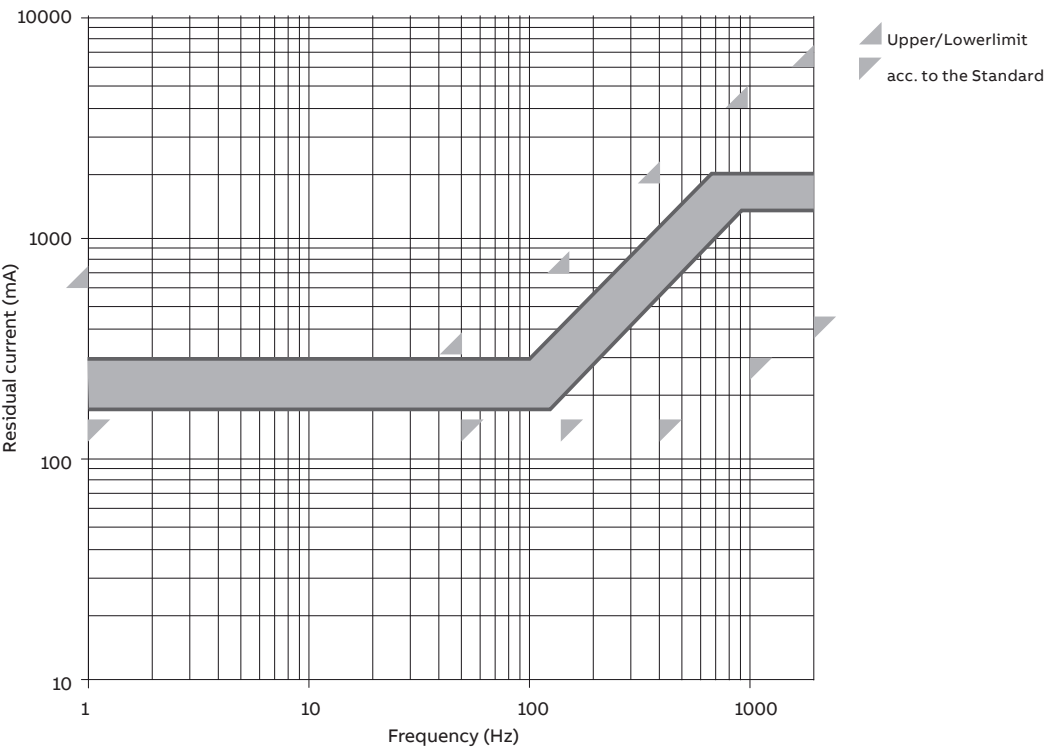
F200 B high ratings

Residual current tripping thresholds according to frequency

F204 B 30 mA



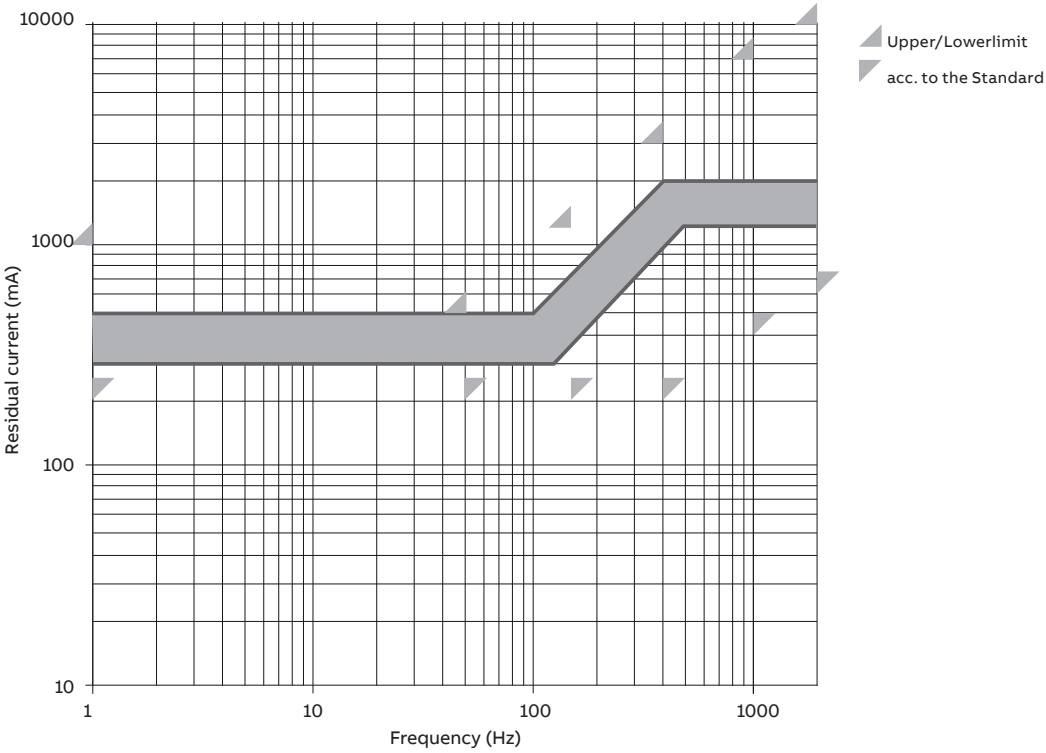
F204 B 300 mA





F200 B TYPE DATA SHEET

F204 B 500 mA





F200 B Type

Tripping times

Tripping times

Type	Fault currents	Tripping time at			
	Alternating currents	1 x I Δ n	2 x I Δ n	5 x I Δ n	500 A
	Pulsating DC currents	1,4 x I Δ n	2 x 1,4 x I Δ n	5 x 1,4 x I Δ n	500 A
	Smooth DC currents	2 x I Δ n	2 x 2 x I Δ n	5 x 2 x I Δ n	500 A
Standard or short-time delay		Max. 0,3 s	Max. 0,15 s	Max. 0,04 s	Max. 0,04 s
Selectiv S		0,13 - 0,5 s	0,06 - 0,2 s	0,05 - 0,15 s	0,04 - 0,15 s

Power Loss Values

Power Loss [W]	In [A]	Per Pole	Total
F202 B	16	0,26	0,82
	25	0,65	1,58
	40	1,65	3,60
	63	4,14	8,58
	25	0,74	3,43
	40	1,92	6,95 (9,26*)
	63	4,80	15,6 (17,9*)
F204 B	80	3,5	14
	125	7,5	34,8

* 500 mA devices

Derating in temperature for F200 B series

Max operating current depending on permanent ambient temperature of the residual current circuit breaker.

In (A)	Temperature (°C)				
	-25...50	55	60	65	70
16A	16	16	16	16	16
25A	25	25	25	25	25
40A	40	40	40	40	32
63A	63	55	48	40	32



02

02 03
Production line of the
RCCB F200 Type B

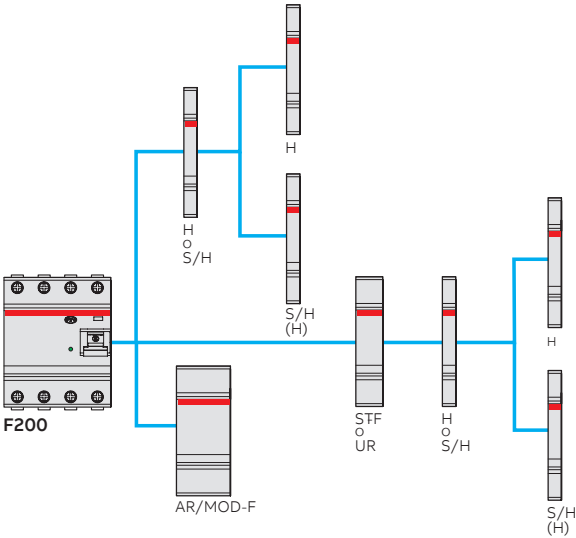
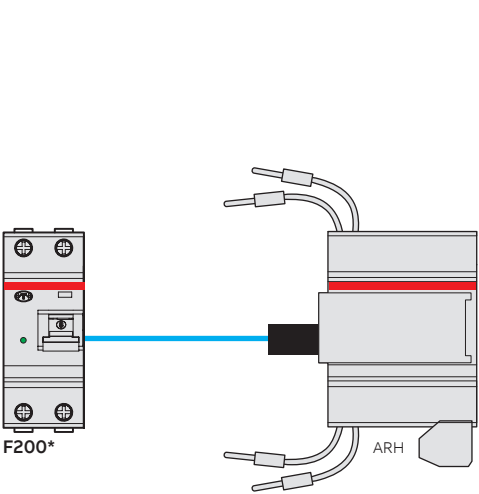
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Auxiliary elements and accessories for MCBs and RCDs

Selection tables

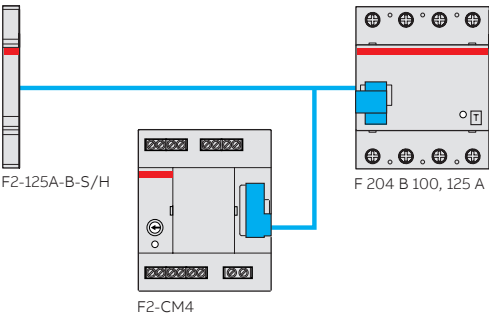
F200 B Type from 16 to 63 A



ARH	Home automatic resetting unit	F2C-ARH
* F202 30 mA or 100 mA (depending on ARH model), max 63 A		

H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-...R
S/H	Signal/Auxiliary contact	S2C-S/H6R
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
UR	Undervoltage release	S2C-UA
AR	Auto reclosing unit	F2C-ARI
MOD-F	Motor operating device	F2C-CM
ST-F	Shunt trip for F 200 RCCB	F2C-A

F200 B high ratings

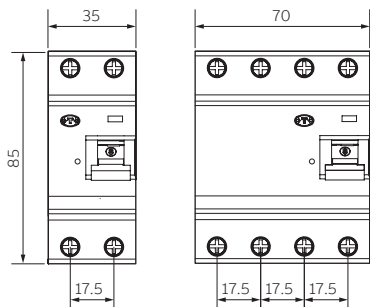


F2-125A-B-S/H	Signal/Auxiliary contact
F2-CM4-MOD	

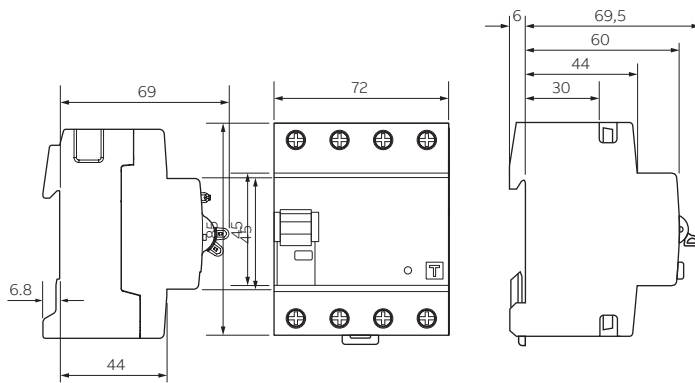


Overall dimensions and wiring diagrams

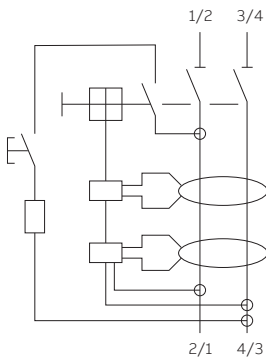
F200 B Type from 16 to 63 A
All measurements in mm



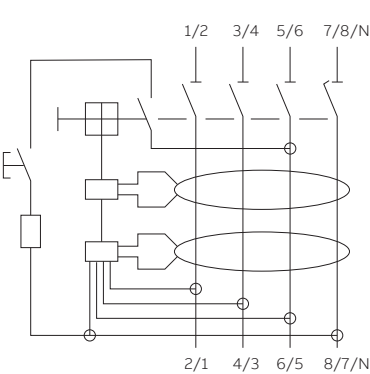
F200 B high ratings



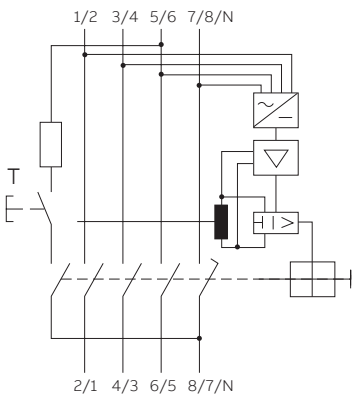
F202 B16 - 63A



F204 B25 - 63A



F204 B 80A



F204 125A Neutral left

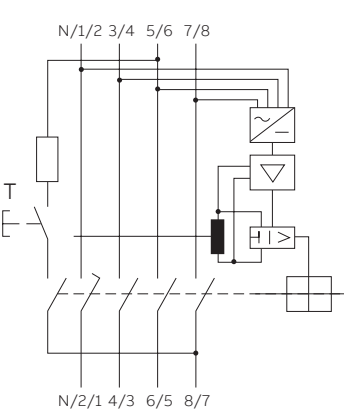




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