

**3**

<b>TECHNICAL FEATURES</b>			
	Standards		
<b>Electrical features</b>	Type (wave form of the earth leakage sensed)		
	Poles		
	Rated current I <sub>n</sub>		A
	Rated sensitivity I <sub>Δn</sub>		A
	Rated voltage U <sub>e</sub>	IEC	V
		UL/CSA	V
	Insulation voltage U <sub>i</sub>		V
	Max. operating voltage of circuit test	IEC	V
		UL/CSA	V
	Min. operating voltage of circuit test		V
	Rated frequency		Hz
	Rated conditional short-circuit current I <sub>nc</sub> =I <sub>Δc</sub>	SCPD - fuse gL 100 A	kA
	Rated residual breaking capacity I <sub>Δm</sub> =I <sub>m</sub>		kA
	Rated impulse withstand voltage (1.2/50) U <sub>imp</sub>		kV
Dielectric test voltage at ind. freq. for 1 min.		kV	
Overvoltage category			
Surge current resistance acc. to VDE 0432 Part 2 (wave 8/20)		A	
<b>Mechanical features</b>	Toggle		
	Contact position indicator (CPI)		
	Electrical life		
	Mechanical life		
	Protection degree	housing terminals	
	Tropicalization acc. to IEC/EN 60068-2	humid heat constant climatic conditions variable climatic conditions	°C/RH °C/RH °C/RH
	Ambient temperature (with daily average ≤ +35 °C)	IEC	°C
		UL/CSA	°C
	Storage temperature		°C
	<b>Installation</b>	Terminal type	
Terminal size top/bottom for cable		IEC UL/CSA	mm <sup>2</sup> AWG
Terminal size top/bottom for busbar		IEC UL/CSA	mm <sup>2</sup> AWG
Tightening torque		IEC UL/CSA	N*m in-lbs.
Tool			
Mounting			
Connection			
Withdrawal from busbar			
<b>Dimensions and weight</b>	Dimensions (H x D x W)	2P 4P	mm mm
	Weight	2P 4P	g g
<b>Combination with auxiliary elements</b>	Combinable with:	auxiliary contact signal contact/auxiliary switch shunt trip undervoltage release	

① Ground-fault sensing and relaying equipment-component (up to 63 A)

② prior to connection of aluminium conductors (≥ 4 mm<sup>2</sup>) ensure that their contact points are cleaned, brushed and coated with grease

# System Technical features

## pro M compact® RCCBs F 200 series

F 200



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F200 AC	F200 A	F200 AC AP-R	F200 A AP-R	F200 AC S	F200 A S	F200 A 400 Hz	F200 B
IEC/EN 61008, UL 1053 ①						IEC/EN 61008	IEC/EN 61008, IEC/EN 60755
AC	A	AC	A	AC	A	A	B
2P, 4P (for 125 A only 4P)		2P, 4P (for 125 A only 4P)		2P, 4P (for 125 A only 4P)		4P	4P
16, 25, 40, 63, 80, 100, 125	25, 40, 63	25, 40, 63	25, 40, 63, 80, 100, 125	40, 63	40, 63, 80, 100, 125	25, 40	40, 63
0.01-0.03-0.1-0.3-0.5		0.03		0.1-0.3-0.5-1		0.03	0.03-0.3
230/400 - 240/415 480Y/277 (up to 63 A)						-	
500						-	
254 (440 for 125 A); 440 for F 200 left neutral 277 (up to 63 A); 480 for F 200 left neutral 110 (185 for 125 A); 195 for F 200 left neutral 50...60						254	440
110 (185 for 125 A); 195 for F 200 left neutral 50...60						110	185
10 (for 125 A fuse is gL 125 A) 1 (1.25 for 125 A) 6						50...400	50...60
2.5						5	
III, disconnector abilities						-	
250	3000		5000		250	3000 (5000 for selective type)	
blue sealable in ON-OFF position							
yes						no	
10000 (2000 for 125 A) 20000 (5000 for 125 A)						10000	2000
20000 (5000 for 125 A)						20000	5000
IP4X IP2X						-	
28 cycles with 55/95...100 23/83 - 40/93 - 55/20 25/95 - 40/95						-	
-25...+55 (-25...+40 for 125 A) -35...+70 (up to 63 A)						-25...+55	-25...+40
-40...+70						-	
failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected) (cage for In > 63 A) ②							
25/25 (35/35 single slot terminal for In > 63 A) 18-4 (up to 63 A)						25/25	50/50
10/10 (not for In = 80-100 A) 18-8 (up to 63 A)						10/10	-
2.8 (4.8 for In > 63 A; 3 for In = 125 A) 25 (up to 63 A)						2.8	3
Nr. 2 Pozidriv						-	
on DIN rail EN 60715 (35 mm) by means of fast clip device from top and bottom						-	
it is possible without using any tools only from the bottom (not for 125 A)							
85 x 69 x 35 85 x 69 x 70 (85 x 69.5 x 72 for 125 A)						85 x 69 x 70	85 x 69.5 x 72
200						-	
350 (380 for In = 80 and 100 A and 460 for In = 125A)						350	500
yes (no for 125 A)						yes	no
yes						yes	yes
yes (no for 125 A)						yes	no
yes (no for 125 A)						yes	no





AC

F 200 AC type (IEC)

Function: protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contacts and additional protection against direct (with  $I_{\Delta n}=30$  mA) contacts; command and isolation of resistive and inductive circuits.

Application: residential, commercial, industrial.

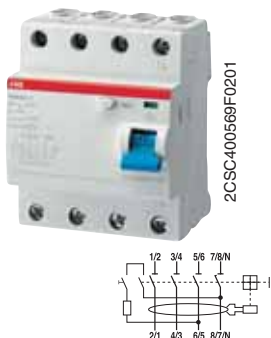
Standard: IEC/EN 61008

Marking: according to IEC 61008

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2CSC400565F0201



2CSC400569F0201

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Order details Type code	Order code	Bbn 8012542 EAN	Price 1 piece	Price group	Weight 1 piece kg	Pack unit pc.
2	10	16	F202 AC-16/0.01	2CSF202005R0160	814603			0.225	1/6
		30	F202 AC-25/0.03	2CSF202005R1250	814702		0.225	1/6	
		40	F202 AC-40/0.03	2CSF202005R1400	814801		0.225	1/6	
		63	F202 AC-63/0.03	2CSF202005R1630	814900		0.225	1/6	
		80	F202 AC-80/0.03	2CSF202005R1800	935902		0.225	1/6	
	100	100	F202 AC-100/0.03	2CSF202005R1900	936008		0.225	1/6	
		25	F202 AC-25/0.1	2CSF202005R2250	815006		0.225	1/6	
		40	F202 AC-40/0.1	2CSF202005R2400	815105		0.225	1/6	
		63	F202 AC-63/0.1	2CSF202005R2630	815204		0.225	1/6	
		80	F202 AC-80/0.1	2CSF202005R2800	936107		0.225	1/6	
	300	100	F202 AC-100/0.1	2CSF202005R2900	936206		0.225	1/6	
		25	F202 AC-25/0.3	2CSF202005R3250	815303		0.225	1/6	
		40	F202 AC-40/0.3	2CSF202005R3400	815402		0.225	1/6	
		63	F202 AC-63/0.3	2CSF202005R3630	815501		0.225	1/6	
80		F202 AC-80/0.3	2CSF202005R3800	936305		0.225	1/6		
500	100	F202 AC-100/0.3	2CSF202005R3900	936404		0.225	1/6		
	80	F202 AC-80/0.5	2CSF202005R4800	936503		0.225	1/6		
100	100	F202 AC-100/0.5	2CSF202005R4900	936602		0.225	1/6		
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4	30	25	F204 AC-25/0.03	2CSF204005R1250	817109			0.375	1/3
		40	F204 AC-40/0.03	2CSF204005R1400	817208		0.375	1/3	
		63	F204 AC-63/0.03	2CSF204005R1630	817307		0.375	1/3	
		80	F204 AC-80/0.03	2CSF204005R1800	936701		0.405	1/3	
		100	F204 AC-100/0.03	2CSF204005R1900	936800		0.405	1/3	
	100	25	F204 AC-25/0.1	2CSF204005R2250	817406		0.375	1/3	
		40	F204 AC-40/0.1	2CSF204005R2400	817505		0.375	1/3	
		63	F204 AC-63/0.1	2CSF204005R2630	817604		0.375	1/3	
		80	F204 AC-80/0.1	2CSF204005R2800	936909		0.405	1/3	
		100	F204 AC-100/0.1	2CSF204005R2900	937005		0.405	1/3	
	300	25	F204 AC-25/0.3	2CSF204005R3250	817703		0.375	1/3	
		40	F204 AC-40/0.3	2CSF204005R3400	817802		0.375	1/3	
		63	F204 AC-63/0.3	2CSF204005R3630	817901		0.375	1/3	
		80	F204 AC-80/0.3	2CSF204005R3800	937104		0.405	1/3	
		100	F204 AC-100/0.3	2CSF204005R3900	937203		0.405	1/3	
	500	80	F204 AC-80/0.5	2CSF204005R4800	937302		0.405	1/3	
		100	F204 AC-100/0.5	2CSF204005R4900	937401		0.405	1/3	



AC



**F 200 AP-R, AC type**

Function: protection against the effects of sinusoidal alternating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct ( $I\Delta n=30$  mA) contacts; command and isolation of resistive and inductive circuits.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008**

**Surge current resistance (wave 8/20)=3000 A**

**Marking: according to EN 61008**

Number of poles	Rated residual current	Rated current	Order details	Bbn 8012542	Price 1 piece	Price group	Weight 1 piece	Pack unit
	$I\Delta n$ mA	$I_n$ A	Type code	Order code	EAN		kg	pc.
2	30	25	F202 AC-25/0.03 AP-R	2CSF202301R1250	785705		0.225	1/6
		40	F202 AC-40/0.03 AP-R	2CSF202301R1400	823704		0.225	1/6
		63	F202 AC-63/0.03 AP-R	2CSF202301R1630	785804		0.225	1/6

4	30	25	F204 AC-25/0.03 AP-R	2CSF204301R1250	785903		0.375	1/3
		40	F204 AC-40/0.03 AP-R	2CSF204301R1400	823803		0.375	1/3
		63	F204 AC-63/0.03 AP-R	2CSF204301R1630	786009		0.375	1/3

**A**



**F 200 AP-R, A type**

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing the best compromise between safety and continuity in the service thanks to the resistance to unwanted trippings; protection against indirect contacts and additional protection against direct ( $I\Delta n=30$  mA) contacts; command and isolation of resistive and inductive circuits.

**Application: residential, commercial, industrial.**

**Standard: IEC/EN 61008**

**Surge current resistance (wave 8/20)=3000 A**

**Marking: according to EN 61008**

Number of poles	Rated residual current $I\Delta n$ mA	Rated current $I_n$ A	Order details		Bbn 8012542	Price 1 piece	Price group	Weight 1 piece kg	Pack unit pc.
			Type code	Order code					
2	30	25	<b>F202 A-25/0.03 AP-R</b>	2CSF202401R1250	<b>785101</b>			0.225	1/6
		40	<b>F202 A-40/0.03 AP-R</b>	2CSF202401R1400	<b>785200</b>			0.225	1/6
		63	<b>F202 A-63/0.03 AP-R</b>	2CSF202401R1630	<b>785309</b>			0.225	1/6
		80	<b>F202 A-80/0.03 AP-R</b>	2CSF202401R1800	<b>916406</b>			0.225	1/6
		100	<b>F202 A-100/0.03 AP-R</b>	2CSF202401R1900	<b>916505</b>			0.225	1/6

4	30	25	<b>F204 A-25/0.03 AP-R</b>	2CSF204401R1250	<b>785408</b>			0.375	1/3
		40	<b>F204 A-40/0.03 AP-R</b>	2CSF204401R1400	<b>785507</b>			0.375	1/3
		63	<b>F204 A-63/0.03 AP-R</b>	2CSF204401R1630	<b>785606</b>			0.375	1/3
		80	<b>F204 A-80/0.03 AP-R</b>	2CSF204401R1800	<b>919407</b>			0.405	1/3
		100	<b>F204 A-100/0.03 AP-R</b>	2CSF204401R1900	<b>919506</b>			0.405	1/3
		125	<b>F204 A-125/0.03 AP-R</b>	2CSF204401R1950	<b>967903</b>			0.500	1



AC

**F 200 AC selective type**

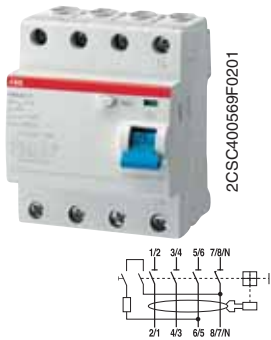
Function: protection against the effects of sinusoidal alternating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive circuits.

Application: commercial, industrial.

Standard: IEC/EN 61008

Surge current resistance (wave 8/20)=5000 A

Marking: according to EN 61008



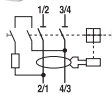
Number of poles	Rated residual current I $\Delta$ n mA	Rated current In A	Order details Type code	Order code	Bbn 8012542 EAN	Price 1 piece	Price group	Weight 1 piece kg	Pack unit pc.
2	100	40	<b>F202 AC S-40/0.1</b>	2CSF202901R2400	<b>821304</b>			0.225	1/6
		63	<b>F202 AC S-63/0.1</b>	2CSF202901R2630	<b>821403</b>			0.225	1/6
	300	40	<b>F202 AC S-40/0.3</b>	2CSF202901R3400	<b>821502</b>			0.225	1/6
		63	<b>F202 AC S-63/0.3</b>	2CSF202901R3630	<b>821601</b>			0.225	1/6
	500	40	<b>F202 AC S-40/0.5</b>	2CSF202901R4400	<b>821700</b>			0.225	1/6
		63	<b>F202 AC S-63/0.5</b>	2CSF202901R4630	<b>821809</b>			0.225	1/6
1000	40	<b>F202 AC S-40/1</b>	2CSF202901R5400	<b>821908</b>			0.225	1/6	
	63	<b>F202 AC S-63/1</b>	2CSF202901R5630	<b>822004</b>			0.225	1/6	

4	100	40	<b>F204 AC S-40/0.1</b>	2CSF204901R2400	<b>822103</b>			0.375	1/3
		63	<b>F204 AC S-63/0.1</b>	2CSF204901R2630	<b>822202</b>			0.375	1/3
	300	40	<b>F204 AC S-40/0.3</b>	2CSF204901R3400	<b>822301</b>			0.375	1/3
		63	<b>F204 AC S-63/0.3</b>	2CSF204901R3630	<b>822400</b>			0.375	1/3
	500	40	<b>F204 AC S-40/0.5</b>	2CSF204901R4400	<b>822509</b>			0.375	1/3
		63	<b>F204 AC S-63/0.5</b>	2CSF204901R4630	<b>822608</b>			0.375	1/3
1000	40	<b>F204 AC S-40/1</b>	2CSF204901R5400	<b>822707</b>			0.375	1/3	
	63	<b>F204 AC S-63/1</b>	2CSF204901R5630	<b>822806</b>			0.375	1/3	

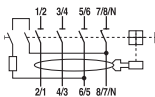
**A**



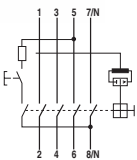
2CSC400565F0201



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2CSC400197F0201



**F 200 A selective type**

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive circuits.

**Application: commercial, industrial.**

**Standard: IEC/EN 61008**

**Surge current resistance (wave 8/20)=5000 A**

**Marking: according to EN 61008**

Number of poles	Rated residual current I <sub>Δn</sub> mA	Rated current In A	Order details		Bbn 8012542	Price 1 piece	Price group	Weight 1 piece	Pack unit
			Type code	Order code	EAN			kg	pc.
2	100	40	<b>F202 A S-40/0.1</b>	2CSF202201R2400	<b>822905</b>			0.225	1/6
		63	<b>F202 A S-63/0.1</b>	2CSF202201R2630	<b>823001</b>			0.225	1/6
		100	<b>F202 A S-100/0.1</b>	2CSF202201R2900	<b>916000</b>			0.225	1/6
	300	40	<b>F202 A S-40/0.3</b>	2CSF202201R3400	<b>784302</b>			0.225	1/6
		63	<b>F202 A S-63/0.3</b>	2CSF202201R3630	<b>784401</b>			0.225	1/6
		100	<b>F202 A S-100/0.3</b>	2CSF202201R3900	<b>916109</b>			0.225	1/6
	500	40	<b>F202 A S-40/0.5</b>	2CSF202201R4400	<b>784500</b>			0.225	1/6
		63	<b>F202 A S-63/0.5</b>	2CSF202201R4630	<b>784609</b>			0.225	1/6
		100	<b>F202 A S-100/0.5</b>	2CSF202201R4900	<b>916208</b>			0.225	1/6
1000	40	<b>F202 A S-40/1</b>	2CSF202201R5400	<b>823100</b>			0.225	1/6	
	63	<b>F202 A S-63/1</b>	2CSF202201R5630	<b>823209</b>			0.225	1/6	
	100	<b>F202 A S-100/1</b>	2CSF202201R5900	<b>916307</b>			0.225	1/6	

4	100	40	<b>F204 A S-40/0.1</b>	2CSF204201R2400	<b>823308</b>			0.375	1/3
		63	<b>F204 A S-63/0.1</b>	2CSF204201R2630	<b>823407</b>			0.375	1/3
		100	<b>F204 A S-100/0.1</b>	2CSF204201R2900	<b>919001</b>			0.405	1/3
	300	40	<b>F204 A S-40/0.3</b>	2CSF204201R3400	<b>784708</b>			0.375	1/3
		63	<b>F204 A S-63/0.3</b>	2CSF204201R3630	<b>784807</b>			0.375	1/3
		100	<b>F204 A S-100/0.3</b>	2CSF204201R3900	<b>919100</b>			0.405	1/3
	500	125	<b>F204 A S-125/0.3</b>	2CSF204201R3950	<b>968207</b>			0.500	1
		40	<b>F204 A S-40/0.5</b>	2CSF204201R4400	<b>784906</b>			0.375	1/3
		63	<b>F204 A S-63/0.5</b>	2CSF204201R4630	<b>785002</b>			0.375	1/3
1000	100	<b>F204 A S-100/0.5</b>	2CSF204201R4900	<b>919209</b>			0.405	1/3	
	125	<b>F204 A S-125/0.5</b>	2CSF204201R4950	<b>968405</b>			0.500	1	
	40	<b>F204 A S-40/1</b>	2CSF204201R5400	<b>823506</b>			0.375	1/3	
1000	63	<b>F204 A S-63/1</b>	2CSF204201R5630	<b>823605</b>			0.375	1/3	
	100	<b>F204 A S-100/1</b>	2CSF204201R5900	<b>919308</b>			0.405	1/3	

**A**

**F 200 A type for high frequency (400 Hz)**

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct (with  $I_{\Delta n}=30$  mA) contacts; command and isolation of resistive and inductive circuits.

Advantages: increasing the frequency generates an increase of the magnetic reluctance of the toroidal transformer of standard RCCB and what follows is the value of the increasing operating residual current at 400 Hz reaching values 3 or more times higher than those of the residual current at 50Hz. The RCCB F 200 400 Hz guarantees protection against indirect contacts and additional protection against direct (with  $I_{\Delta n}=30$  mA) contacts considering that the operating residual current doesn't increase with the increase of the network frequency.

**Application: commercial, industrial.**

**Standard: IEC/EN 61008**

**Marking: according to EN 61008**



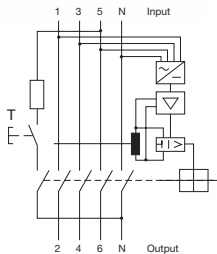
2CSF204197R1400

Number of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Order details		Bbn <b>8012542</b>	Price 1 piece	Price group	Weight 1 piece kg	Pack unit pc.
			Type code	Order code					
4	30	25	F204 A-25/0.03 400Hz	2CSF204197R1250	968603			0.375	1/3
		40	F204 A-40/0.03 400Hz	2CSF204197R1400					

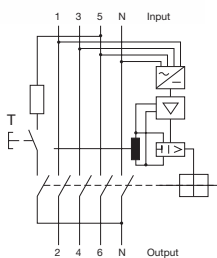
**B**



2CSC400197F0201



2CSC400197F0201



**F 200 B type for pulsating DC earth fault current**

Function: protection against the effects of sinusoidal alternating, direct pulsating and pulsating DC or smooth DC earth fault currents; protection against indirect contacts and additional protection against direct (with  $I_{dn}=30\text{ mA}$ ) contacts; command and isolation of resistive and inductive circuits.

**Application: industrial.**

**Standard: IEC/EN 61008 and IEC/EN 60755**

**Marking: according to EN 61008**

Number of poles	Rated residual current	Rated current	Order details		Bbn	Price	Price group	Weight	Pack
	$I_{\Delta n}$ mA	$I_n$ A	Type code	Order code	8012542	1 piece		1 piece	unit
					EAN			kg	pc.
4	30	40	<b>F204 B-40/0.03</b>	2CSF204501R1400	<b>988403</b>			0.500	1
		63	<b>F204 B-63/0.03</b>	2CSF204501R1630	<b>988502</b>			0.500	1
	300	<b>F204 B-63/0.3</b>	2CSF204501R3630	<b>989004</b>			0.500	1	

**F 200 B selective type for pulsating DC earth fault current**

Function: protection against the effects of sinusoidal alternating, direct pulsating and pulsating DC or smooth DC earth fault currents with an intentional tripping delay, which permits to realize the selectivity with downstream instantaneous devices (for more information about selectivity see the technical guide); protection against indirect contacts; command and isolation of resistive and inductive circuits.

**Application: industrial.**

**Standard: IEC/EN 61008 and IEC/EN 60755**

**Surge current resistance (wave 8/20)=5000A**

**Marking: according to EN 61008**

Number of poles	Rated residual current	Rated current	Order details		Bbn	Price	Price group	Weight	Pack
	$I_{\Delta n}$ mA	$I_n$ A	Type code	Order code	8012542	1 piece		1 piece	unit
					EAN			kg	pc.
4	300	63	<b>F204 B S-63/0.3</b>	2CSF204801R3630	<b>989301</b>			0.500	1