

RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

6

RFI1 - up to 32 A

Page 6-2



- Rated current: 6, 10, 16, 20, 25, 32 A
- Rated residual operating current $I_{\Delta n}$: 30 mA, 100 mA
- Short circuit breaking capacity: 6 kA
- SEMKO, CE

KAFI - up to 32 A

Page 6-5



- Rated current: 6, 10, 16, 20, 25, 32 A
- Rated residual operating current $I_{\Delta n}$: 30 mA, 100 mA, 300 mA
- Short circuit breaking capacity: 10 kA
- KEMA, CE

RFI2 - up to 40 A

Page 6-10



- Rated current: 6, 10, 16, 20, 25, 32, 40 A
- Rated residual operating current $I_{\Delta n}$: 10, 30, 100, 300 mA
- Short circuit breaking capacity: 10 kA
- VDE, EAC, CE

RFI4E - up to 32 A

Page 6-13



- Rated current: 6, 10, 13, 16, 20, 25, 32 A
- Rated residual operating current $I_{\Delta n}$: 30, 100, 300, 500 mA
- Short circuit breaking capacity: 6 kA
- CE

RCBOs ARE USED IN APPLICATIONS WHERE THERE IS THE NEED TO COMBINE PROTECTION AGAINST OVERCURRENTS (OVERLOAD AND SHORT-CIRCUIT) AND PROTECTION AGAINST EARTH LEAKAGE CURRENTS.

RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI1



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FEATURES

- Single module size with switched neutral line
- Breaking capacity 6 kA
- Simple replace MCB with RCBO in the same place
- Functionality on minimum supply voltage 90 V
- The terminals provide to use also saving busbars
- Method of DIN rail mounting enables an easy removal of single RCBO without disconnecting units from busbars
- Assembly to a 35 mm wide mounting rail in accordance with EN 60715

ORDERING DATA

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RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI1 - A Type

RFI1 - characteristics B

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI1 B 6/0.03	6	0.03	2	786.100.912	127	1
RFI1 B 10/0.03	10	0.03	2	786.100.913	127	1
RFI1 B 16/0.03	16	0.03	2	786.100.914	127	1
RFI1 B 20/0.03	20	0.03	2	786.100.915	127	1
RFI1 B 25/0.03	25	0.03	2	786.100.916	127	1
RFI1 B 32/0.03	32	0.03	2	786.100.917	127	1
RFI1 B 16/0.1	16	0.1	2	786.100.926	127	1
RFI1 B 20/0.1	20	0.1	2	786.100.927	127	1
RFI1 B 25/0.1	25	0.1	2	786.100.928	127	1

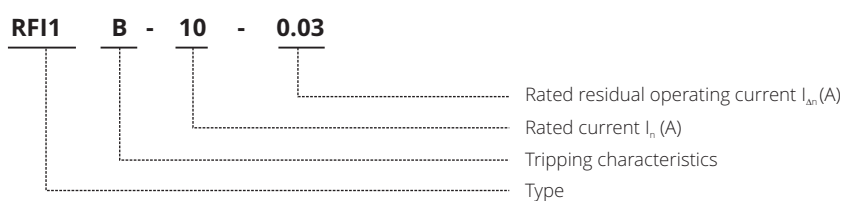


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RFI1 - characteristics C

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI1 C 6/0.03	6	0.03	2	786.100.918	127	1
RFI1 C 10/0.03	10	0.03	2	786.100.919	127	1
RFI1 C 16/0.03	16	0.03	2	786.100.920	127	1
RFI1 C 20/0.03	20	0.03	2	786.100.921	127	1
RFI1 C 25/0.03	25	0.03	2	786.100.922	127	1
RFI1 C 32/0.03	32	0.03	2	786.100.923	127	1

ORDERING DATA



ORDERING DATA

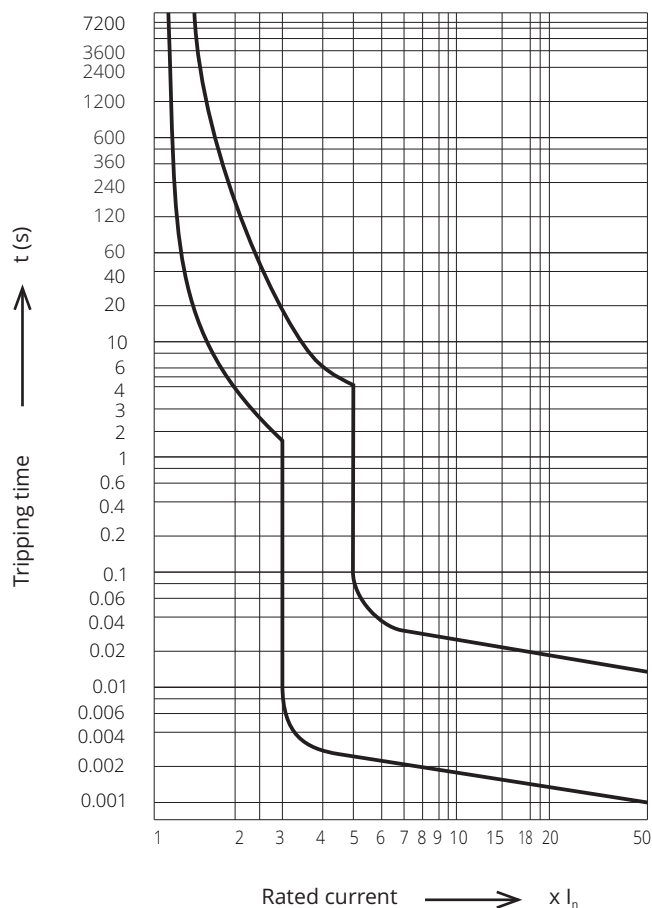
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI1 - A Type

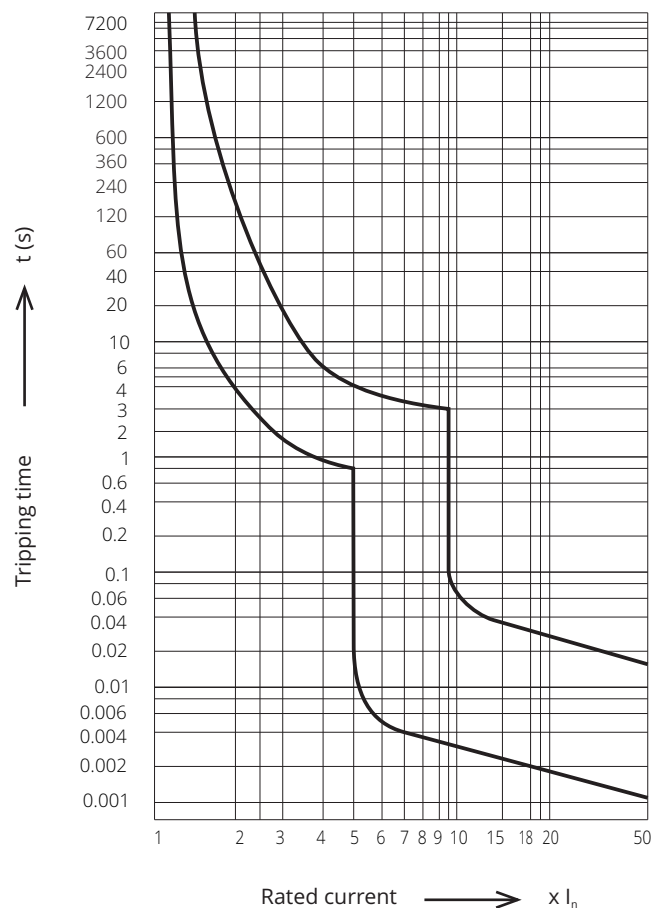
Type	A	Symbol	Unit	RFI1
Standards				IEC 61009-1
Approvals				SEMKO, CE
Module width				1
Number of poles				2
Rated voltage		U_n	V	230
Rated insulation voltage		U_i	V	500
Rated impulse withstand voltage		U_{imp}	kV	4
Tripping characteristics				B, C
Rated frequency		f	Hz	50
Rated current		I_n	A	6, 10, 16, 20, 25, 32
Rated residual current		$I_{\Delta n}$	mA	30, 100
Type of residual current				A, AC
Residual tripping time			ms	<100
Short circuit breaking capacity			kA	6
Selectivity class				3
Electrical endurance			op. c.	4000
Back-up fuse gL/gG			A	100
Mechanical endurance			op. c.	10 000
Connecting clamps				stirrup
Terminal capacity			mm ²	1 ... 10
Mounting				DIN rail acc. to EN 60715
Ambient temperature			°C	-25 ... +40
Storage temperature			°C	-35 ... +60
Tightening torque			Nm	1.2

Tripping characteristics

Characteristics B

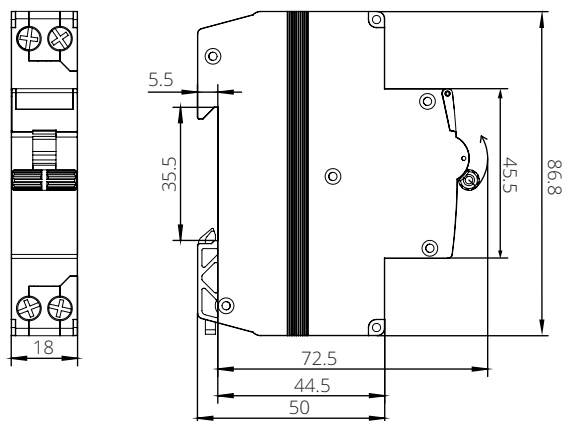


Characteristics C



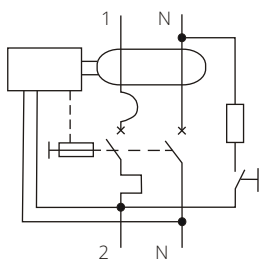
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI1 - A Type



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Schematics



DIMENSIONS

RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

KAFI2



RCBOs ARE USED IN APPLICATIONS WHERE THERE IS THE NEED TO COMBINE PROTECTION AGAINST OVERCURRENTS (OVERLOAD AND SHORT-CIRCUIT) AND PROTECTION AGAINST EARTH LEAKAGE CURRENTS.

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FEATURES

- Trip free mechanisms
- Earth fault indication window
- Wide range of breaking capacities for application from residential to industrial field
- Connection capacity 25mm² rigid and 16mm² flexible wire
- Assembly to a 35 mm wide mounting rail in accordance with EN 60715
- Optional operation position
- Degree of protection IP20, degree of protection IP40 after installation in a distribution box

ORDERING DATA

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RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

KAFI2- Type A

KAFI2 - characteristics B

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
KAFI2 B 6/0.03	6	0.03	2	786.100.844	210	1
KAFI2 B 10/0.03	10	0.03	2	786.100.845	210	1
KAFI2 B 13/0.03	13	0.03	2	786.100.846	210	1
KAFI2 B 16/0.03	16	0.03	2	786.100.843	210	1
KAFI2 B 16/0.1	16	0.1	2	786.100.840	210	1
KAFI2 B 20/0.1	20	0.1	2	786.100.841	210	1
KAFI2 B 25/0.1	25	0.1	2	786.100.842	210	1
KAFI2 B 20/0.3	20	0.3	2	786.100.847	210	1
KAFI2 B 25/0.3	25	0.3	2	786.100.848	210	1



KAFI2 - characteristics C

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
KAFI2 C 6/0.03	6	0.03	2	786.100.849	210	1
KAFI2 C 10/0.03	10	0.03	2	786.100.850	210	1
KAFI2 C 13/0.03	13	0.03	2	786.100.852	210	1
KAFI2 C 16/0.03	16	0.03	2	786.100.853	210	1
KAFI2 C 20/0.03	20	0.03	2	786.100.854	210	1
KAFI2 C 25/0.03	25	0.03	2	786.100.856	210	1
KAFI2 C 32/0.03	32	0.03	2	786.100.857	210	1
KAFI2 C 40/0.03	40	0.03	2	786.100.858	210	1
KAFI2 C 10/0.3	10	0.3	2	786.100.851	210	1
KAFI2 C 20/0.3	20	0.3	2	786.100.855	210	1

ORDERING DATA



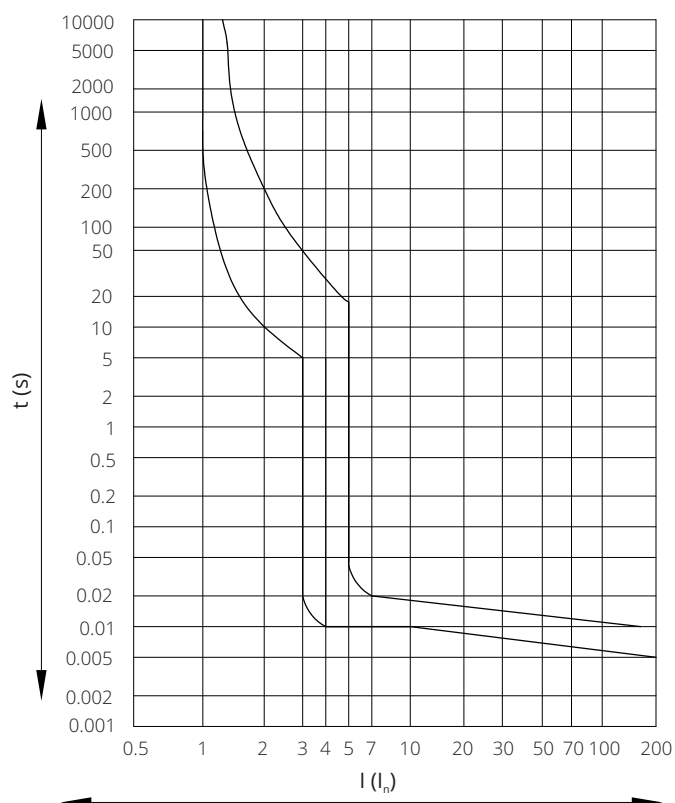
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

KAFI2 - Type A

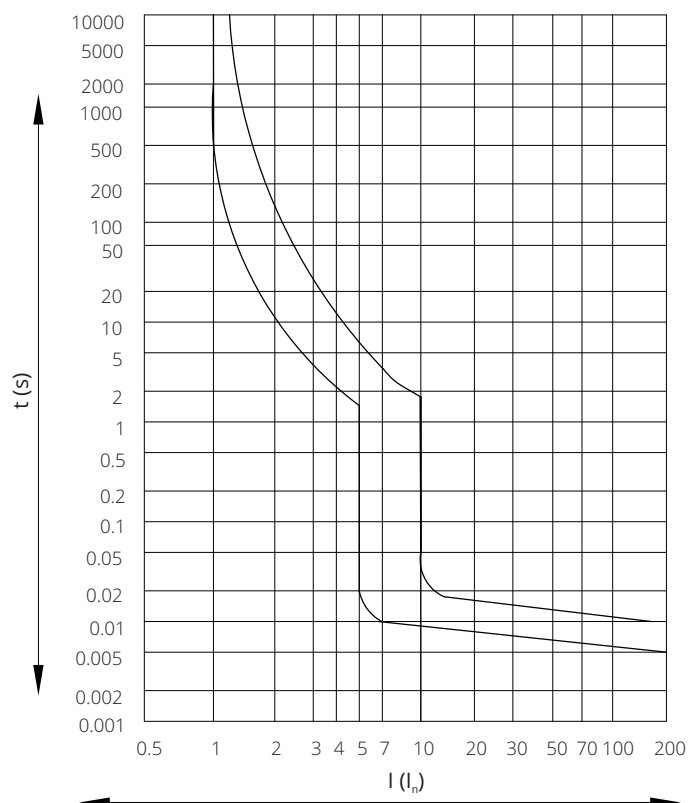
Type	A	Symbol	Unit	KAFI2
Standards				IEC 61009-1
Approvals				KEMA, CE
Module width				2
Number of poles				2
Rated voltage		U_n	V	240
Rated insulation voltage		U_i	V	400
Rated impulse withstand voltage		U_{imp}	kV	4
Tripping characteristics				B, C
Rated frequency		f	Hz	50/60
Rated current		I_n	A	6, 10, 16, 20, 25, 32, 40 (50, 63, only AC)
Rated residual current		$I_{\Delta n}$	mA	30, 100, 300
Type of residual current				A, AC
Residual tripping time			ms	<100
Rated short circuit capacity		I_{cn}	A	10.000
Rated residual making and breaking capacity		$I_{\Delta m}$	A	630
Electrical endurance			op. c.	4000
Back-up fuse gL/gG			A	40 (63)
Mechanical endurance			op. c.	10 000
Connecting clamps				lug type
Connecting wires			mm ²	1 ... 25
Mounting				DIN rail acc. to EN 60715
Ambient temperature			°C	-25 ... +40
Storage temperature			°C	-35 ... +60
Tightening torque			Nm	2
Protection degree				IP20

Tripping characteristics

Characteristics B acc. to EN 60 898

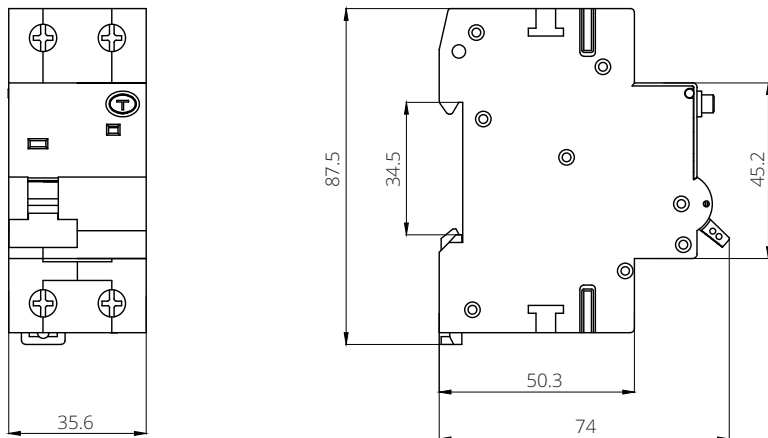


Characteristics C acc. to EN 60 898



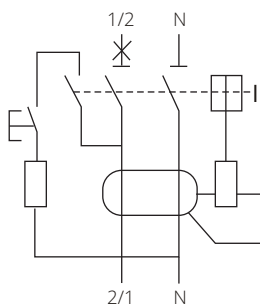
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

KAFI2 - A Type



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Schematics



DIMENSIONS

RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI2



RCBOs ARE USED IN APPLICATIONS WHERE THERE IS THE NEED TO COMBINE PROTECTION AGAINST OVERCURRENTS (OVERLOAD AND SHORT-CIRCUIT) AND PROTECTION AGAINST EARTH LEAKAGE CURRENTS.

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FEATURES

- A built-in protection against overload and short-circuit
 - RFI2 may be used to provide:
 - fault protection (protection against indirect contact)
 - protection against fire
 - additional protection against direct contact
 - Version: type A which means that it is sensitive to alternating and pulsating d.c. residual currents. Available also type G, which means switch is short-time delay
 - Sealing in ON or OFF position
 - Assembly to a 35 mm wide mounting rail in accordance with EN 60715
 - Optional operation position
 - Degree of protection IP20, degree of protection IP40 after installation in a distribution box
- Additional colour indication of the position of main contacts
(red - contacts closed, green - contacts open)

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RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI2 - Type A

RFI2 - characteristics B

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI2 B 10/0.01	10	0.01	2	786.100.638	220	1
RFI2 B 16/0.01	16	0.01	2	786.100.644	220	1
RFI2 B 6/0.03	6	0.03	2	786.100.639	220	1
RFI2 B 10/0.03	10	0.03	2	786.100.612	220	1
RFI2 B 13/0.03	13	0.03	2	786.100.628	220	1
RFI2 B 16/0.03	16	0.03	2	786.100.600	220	1
RFI2 B 20/0.03	20	0.03	2	786.100.608	220	1
RFI2 B 25/0.03	25	0.03	2	786.100.609	220	1
RFI2 B 32/0.03	32	0.03	2	786.100.610	220	1
RFI2 B 40/0.03	40	0.03	2	786.100.601	220	1
RFI2 B 6/0.1	6	0.1	2	786.100.634	220	1
RFI2 B 16/0.1	16	0.1	2	786.100.630	220	1
RFI2 B 20/0.1	20	0.1	2	786.100.631	220	1
RFI2 B 25/0.1	25	0.1	2	786.100.627	220	1
RFI2 B 32/0.1	32	0.1	2	786.100.645	220	1
RFI2 B 10/0.3	10	0.3	2	786.100.640	220	1
RFI2 B 16/0.3	16	0.3	2	786.100.632	220	1
RFI2 B 20/0.3	20	0.3	2	786.100.633	220	1
RFI2 B 25/0.3	25	0.3	2	786.100.643	220	1



RFI2 - characteristics C

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI2 C 10/0.01	10	0.01	2	786.100.637	220	1
RFI2 C 16/0.01	16	0.01	2	786.100.614	220	1
RFI2 C 6/0.03	6	0.03	2	786.100.613	220	1
RFI2 C 10/0.03	10	0.03	2	786.100.602	220	1
RFI2 C 13/0.03	13	0.03	2	786.100.629	220	1
RFI2 C 16/0.03	16	0.03	2	786.100.605	220	1
RFI2 C 20/0.03	20	0.03	2	786.100.611	220	1
RFI2 C 25/0.03	25	0.03	2	786.100.606	220	1
RFI2 C 32/0.03	32	0.03	2	786.100.607	220	1
RFI2 C 40/0.03	40	0.03	2	786.100.604	220	1
RFI2 C 16/0.1	16	0.1	2	786.100.616	220	1
RFI2 C 6/0.3	6	0.3	2	786.100.642	220	1
RFI2 C 10/0.3	10	0.3	2	786.100.615	220	1
RFI2 C 16/0.3	16	0.3	2	786.100.641	220	1
RFI2 C 20/0.3	20	0.3	2	786.100.603	220	1

RFI2K - characteristics B - short-time delay

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI2K B 13/0.03	13	0.03	2	786.100.624	220	1
RFI2K B 16/0.03	16	0.03	2	786.100.626	220	1

RFI2K - characteristics C - short-time delay

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI2K C 13/0.03	13	0.03	2	786.100.619	220	1
RFI2K C 16/0.03	16	0.03	2	786.100.924	220	1

ORDERING DATA



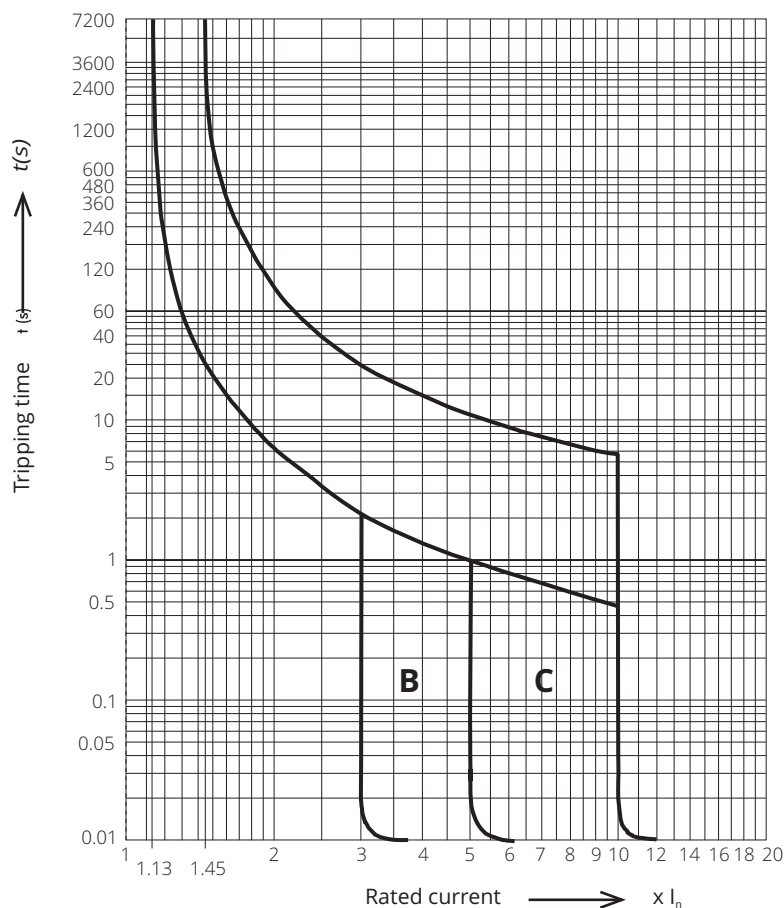
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI2 - Type A

Type	A	Symbol	Unit	RFI2 RFI2K
Standards				IEC 61009
Approvals				VDE, EAC, CE
Module width				2
Number of poles				2
Rated voltage		U_n	V	230
Rated insulation voltage		U_i	V	400
Rated insulation voltage		U_{imp}	kV	4
Tripping characteristics				B, C
Rated frequency		f	Hz	50
Rated current		I_n	A	6, 10, 13, 16, 20, 25, 32, 40
Rated residual current		$I_{\Delta n}$	mA	10, 30, 100, 300
Type of residual current				A, AC
Residual tripping time			ms	<100
Short circuit breaking capacity			kA	10
Selectivity class			kA	3
Electrical endurance			op. c.	4000
Back-up fuse gL/gG			A	63
Mechanical endurance			op. c.	10 000
Connecting clamps				pillar
Terminal capacity			mm ²	1.5 ... 25
Mounting				DIN rail acc. to EN 60715
Ambient temperature			°C	-25 ... +40
Storage temperature			°C	-35 ... +60
Tightening torque			Nm	2
Protection degree				IP20
Accessories				Auxiliary and signal changeover contacts

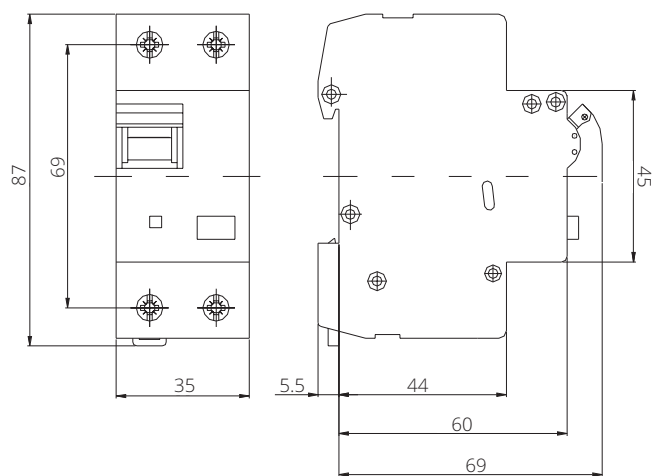
Tripping characteristics

Characteristics B and C



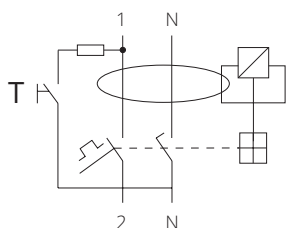
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI2 - Type A



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Schematics



RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI4E



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FEATURES

- A built-in protection against overload and short-circuit
- Used in house and similar installations
- Short circuit breaking capacity - 6 kA
- Simple assembly with spring clamps to the DIN rail
- Sealable in on and off position
- Optical status indicator on the front side indicating state of device (green - switched off, red - switched on)
- Working position optional
- Possibility to mount auxilliary contacts

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RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI4E - Type A

RFI4E - characteristics B

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI4E B 16/0.03	16	0.03	4	786.101.809	478	1
RFI4E B 20/0.03	20	0.03	4	786.101.810	478	1
RFI4E B 25/0.03	25	0.03	4	786.101.811	478	1
RFI4E B 32/0.03	32	0.03	4	786.101.812	478	1
RFI4E B 16/0.1	10	0.1	4	786.101.805	478	1
RFI4E B 20/0.1	16	0.1	4	786.101.806	478	1
RFI4E B 25/0.1	25	0.1	4	786.101.807	478	1
RFI4E B 32/0.1	32	0.1	4	786.101.808	478	1
RFI4E B 16/0.3	16	0.3	4	786.101.801	478	1
RFI4E B 20/0.3	20	0.3	4	786.101.802	478	1
RFI4E B 25/0.3	25	0.3	4	786.101.803	478	1
RFI4E B 32/0.3	32	0.3	4	786.101.804	478	1



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RFI4E - characteristics C

Type	Rated current I_n (A)	Rated residual current $I_{\Delta n}$ (A)	Number of poles	Ordering No.	Weight (g)	Packaging (pcs)
RFI4E C 16/0.03	16	0.03	4	786.100.813	478	1
RFI4E C 20/0.03	20	0.03	4	786.100.814	478	1
RFI4E C 25/0.03	25	0.03	4	786.100.815	478	1
RFI4E C 32/0.03	32	0.03	4	786.100.816	478	1
RFI4E C 25/0.3	25	0.3	4	786.100.818	478	1
RFI4E C 32/0.3	32	0.3	4	786.100.817	478	1



ORDERING DATA



ORDERING DATA

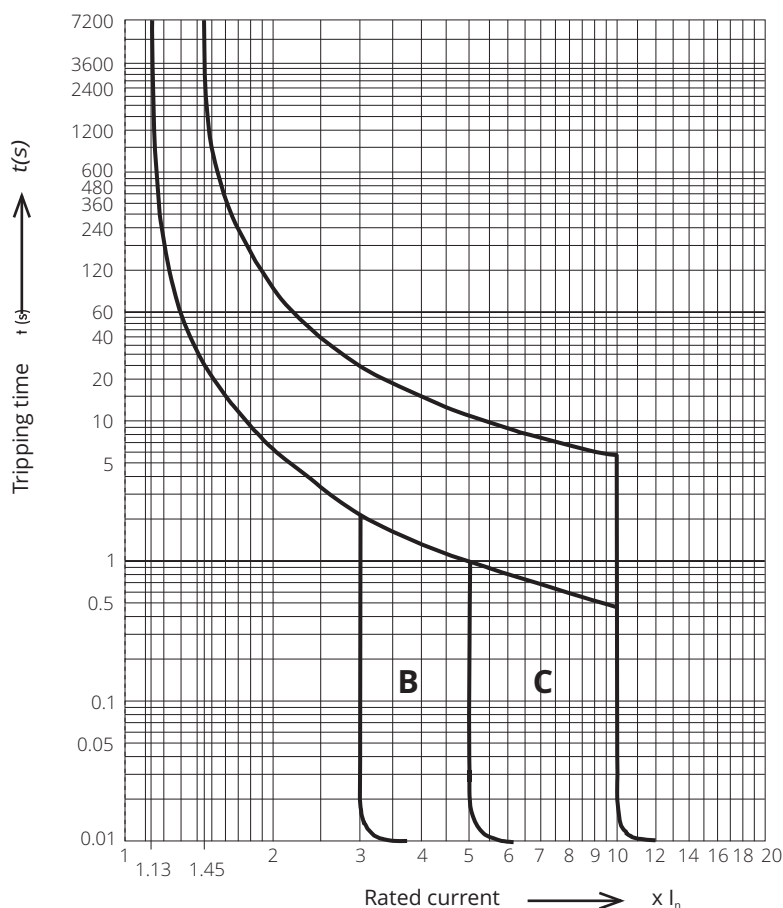
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI4E - Type A

Type	A	Symbol	Unit	RFI4E
Standards				IEC 61009-1
Approvals				CE
Module width				4
Number of poles				4
Rated voltage		U_n	V	400
Rated insulation voltage		U_i	V	500
Rated impulse withstand voltage		U_{imp}	kV	4
Tripping characteristics				B, C
Rated frequency		f	Hz	50
Rated current		I_n	A	6, 10, 13, 16, 20, 25, 32
Rated residual current		$I_{\Delta n}$	mA	30, 100, 300, 500
Type of residual current				A
Residual tripping time			ms	<100
Short circuit breaking capacity			kA	6
Selectivity class			kA	3
Electrical endurance			op. c.	4000
Back-up fuse gL/gG			A	100
Mechanical endurance			op. c.	10 000
Connecting clamps				lug type
Terminal capacity			mm ²	1 ... 25
Mounting				DIN rail acc. to EN 60715
Ambient temperature			°C	-25 ... +40
Storage temperature			°C	-35 ... +60
Tightening torque			Nm	2.4
Protection degree				IP20, IP40 from the front panel
Accessories				Auxiliary and signal changeover contacts

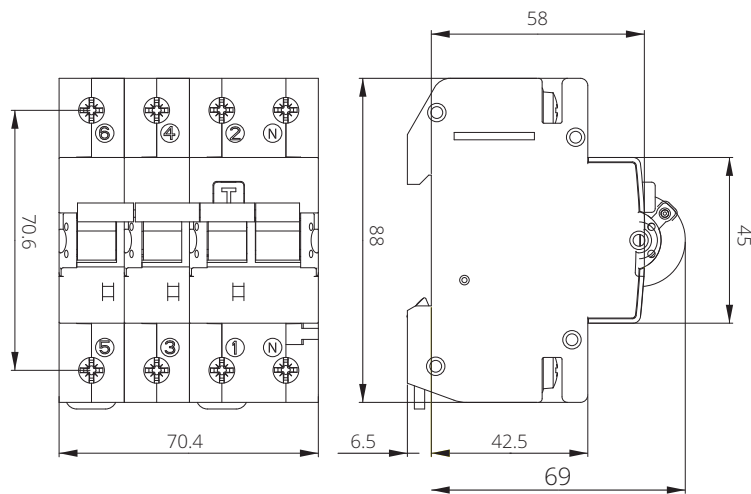
Tripping characteristics

Characteristics B and C



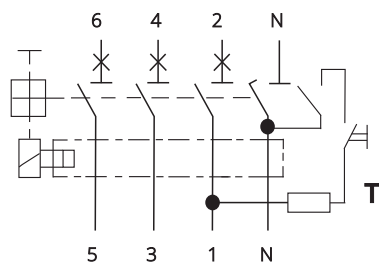
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

RFI4E



6

Schematics



DIMENSIONS