

## RCBO, Residual Current Circuit Breaker, RCM4, 6kA (Type A)



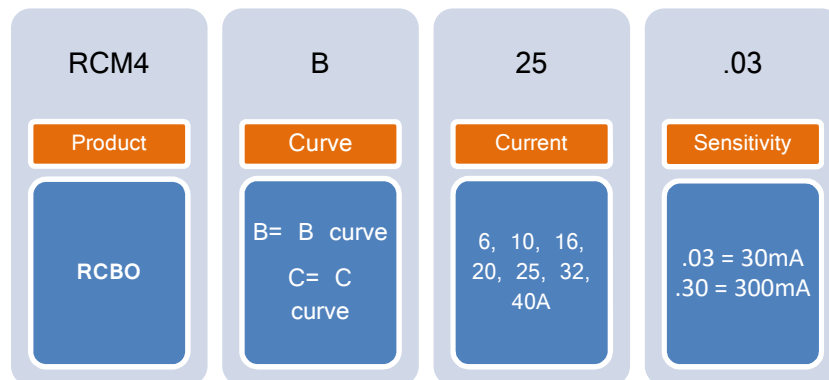
- △ RCBO type A
- △ 3p+n (N- left side)
- △ Rated current up to 40A
- △ 30, 300mA
- △ Rated operational voltage 415VAC
- △ Connection 3p+n device
- △ Rated short-circuit breaking capacity 6kA (Icn)
- △ Fork- / Pin- type busbar connection
- △ Bi-directional

### General information

The SEP RCM4 RCBO is a protective device against residual current, shortcircuit and overload. It is suitable for AC circuits of 50/60Hz, rated voltage of 400V and a rated current up to 40A. It is mainly used to protect human safety from electrical shock and to prevent fire disaster caused by overload or by residual current due to damaged equipment. It also can be used in the infrequent on-and-off switching operation under the normal cases. This RCBO is mainly used in the domestic, utility and industrial application.

### Type key

Example:  
RCM4-B25.03



### Certification marks



## B- Characteristic, 30mA – 3p+N pole, 6kA



Rated current	Poles	Sensitivity	Width	Article no.	Type	EAN code	Packing
6 A	3p+n	30mA	4 MU	<b>3104640006</b>	RCM4-B06.03	8718959012280	3/30
10A	3p+n	30mA	4 MU	<b>3104640010</b>	RCM4-B10.03	8718959012297	3/30
16 A	3p+n	30mA	4 MU	<b>3104640016</b>	RCM4-B16.03	8718959012303	3/30
20 A	3p+n	30mA	4 MU	<b>3104640020</b>	RCM4-B20.03	8718959012310	3/30
25 A	3p+n	30mA	4 MU	<b>3104640025</b>	RCM4-B25.03	8718959012327	3/30
32 A	3p+n	30mA	4 MU	<b>3104640032</b>	RCM4-B32.03	8718959012334	3/30
40 A	3p+n	30mA	4 MU	<b>3104640040</b>	RCM4-B40.03	8718959012341	3/30



## B- Characteristic, 300mA – 3p+N pole, 6kA



Rated current	Poles	Sensitivity	Width	Article no.	Type	EAN code	Packing
6 A	3p+n	300mA	4 MU	<b>3104641006</b>	RCM4-B06.30	8718959012426	3/30
10A	3p+n	300mA	4 MU	<b>3104641010</b>	RCM4-B10.30	8718959012433	3/30
16 A	3p+n	300mA	4 MU	<b>3104641016</b>	RCM4-B16.30	8718959012440	3/30
20 A	3p+n	300mA	4 MU	<b>3104641020</b>	RCM4-B20.30	8718959012457	3/30
25 A	3p+n	300mA	4 MU	<b>3104641025</b>	RCM4-B25.30	8718959012464	3/30
32 A	3p+n	300mA	4 MU	<b>3104641032</b>	RCM4-B32.30	8718959012471	3/30
40 A	3p+n	300mA	4 MU	<b>3104641040</b>	RCM4-B40.30	8718959012488	3/30



## C- Characteristic, 30mA – 3p+N pole, 6kA



Rated current	Poles	Sensitivity	Width	Article no.	Type	EAN code	Packing
6A	3p+n	30mA	4 MU	<b>3104650006</b>	RCM4-C06.03	8718959012358	3/30
10A	3p+n	30mA	4 MU	<b>3104650010</b>	RCM4-C10.03	8718959012365	3/30
16 A	3p+n	30mA	4 MU	<b>3104650016</b>	RCM4-C16.03	8718959012372	3/30
20 A	3p+n	30mA	4 MU	<b>3104650020</b>	RCM4-C20.03	8718959012389	3/30
25 A	3p+n	30mA	4 MU	<b>3104650025</b>	RCM4-C25.03	8718959012396	3/30
32 A	3p+n	30mA	4 MU	<b>3104650032</b>	RCM4-C32.03	8718959012402	3/30
40 A	3p+n	30mA	4 MU	<b>3104650040</b>	RCM4-C40.03	8718959012419	3/30



## C- Characteristic, 300mA – 3p+N pole, 6kA



Rated current	Poles	Sensitivity	Width	Article no.	Type	EAN code	Packing
6A	3p+n	300mA	4 MU	<b>3104651006</b>	RCM4-C06.30	8718959012495	3/30
10A	3p+n	300mA	4 MU	<b>3104651010</b>	RCM4-C10.30	8718959012501	3/30
16 A	3p+n	300mA	4 MU	<b>3104651016</b>	RCM4-C16.30	8718959012518	3/30
20 A	3p+n	300mA	4 MU	<b>3104651020</b>	RCM4-C20.30	8718959012525	3/30
25 A	3p+n	300mA	4 MU	<b>3104651025</b>	RCM4-C25.30	8718959012532	3/30
32 A	3p+n	300mA	4 MU	<b>3104651032</b>	RCM4-C32.30	8718959012549	3/30
40 A	3p+n	300mA	4 MU	<b>3104651040</b>	RCM4-C40.30	8718959012556	3/30



### General parameters

High breaking capacity up to 6kA
Suitable for household, utility as well as industrial applications
Bi-directional connection possible
RCBO should be tested regularly with a period of one month, this is the responsibility of the user of an installation given by law

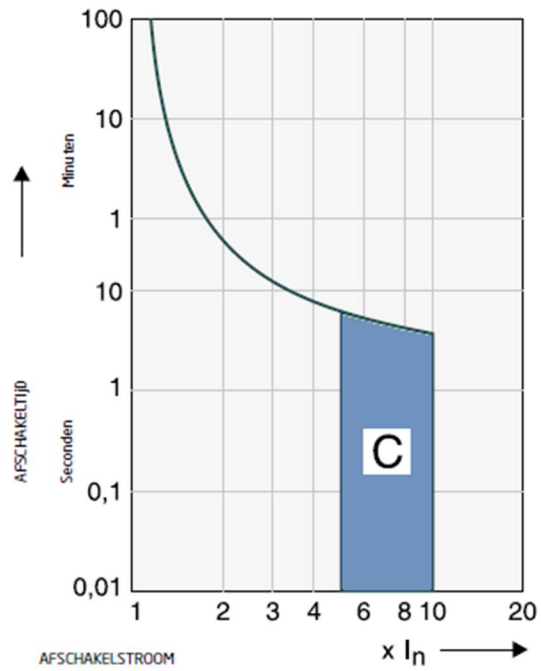
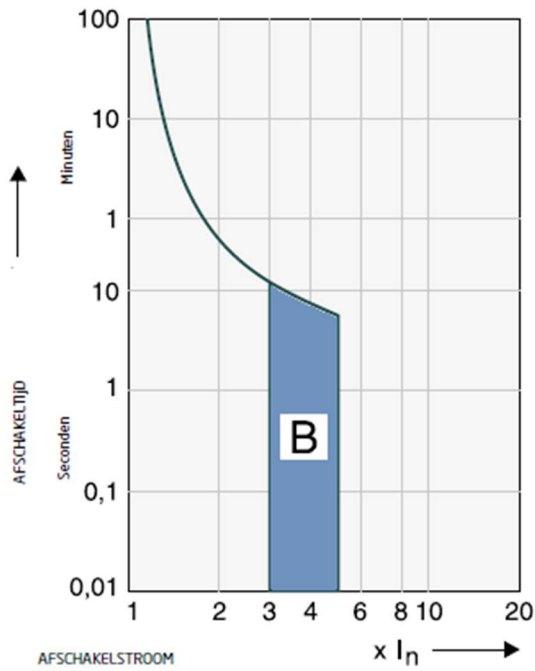
### Electrical parameters

Tested according		IEC/EN 61009
Rated operational voltage	U <sub>e</sub>	400VAC
Maximum working voltage	U <sub>max</sub>	440VAC
Minimum working voltage	U <sub>min</sub>	110VAC
Minimum working voltage test button		150VAC
Maximum working voltage test button		440VAC
Rated frequency		50/60Hz
Rated breaking capacity	I <sub>nc</sub>	6kA
Poles		4
Protected poles		3
Switching neutral		Yes
Rated current	I <sub>n</sub>	6...40A
Residual current		30mA, 100mA, 300mA
Waveform		A type (residual AC and pulsating DC current)
Time delay		Without time delay
Tripping characteristics		B, C
Energy limiting class		3
Transient overvoltage category		3
Rated isolation voltage	U <sub>i</sub>	500V
Rated impulse withstand voltage	U <sub>imp</sub>	4 kV
Rated making and breaking capacity	I <sub>m</sub>	3000A
Residual making and breaking capacity	I <sub>dm</sub>	3000A
Dielectric test voltage		6 kV
Electrical service life		10 000 operations
Mechanical service life		4 000 operations
Backup fuse for short circuit		Max. 125A gG
Mechanical service life		Arbitrary – above or below

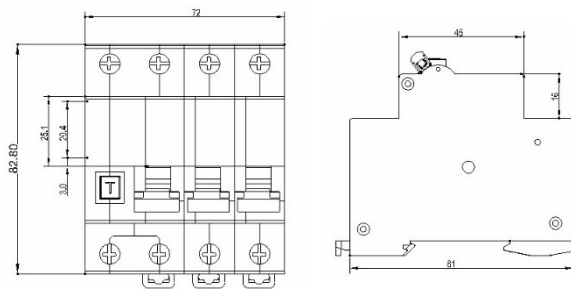
### Mechanical parameters

Device width	72mm
Device height	89mm
Device depth	74mm
Mounting	Easy fastening onto 35mm device rail (DIN)
Degree of protection (all sides)	IP40
Degree of protection (connection terminals)	IP20 – terminal protection cover with seal function
Connection possibility	Cable / fork- / pin-type busbar
Terminals	Combined lift + open mouthed
Terminal capacity	1-35mm <sup>2</sup>
Fastening torque of terminals	2 Nm
Busbar connection	Fork- or Pin type
Busbar thickness	16mm <sup>2</sup>
Storage temperature	-25°C + 70°C
Reference temperature	30°C
Ambient temperature	-5°C + 40°C (with daily average < 35°C)
Resistance to humidity and heat	Class 2
Installation class	III
Pollution degree	2
Weight	0,412kg

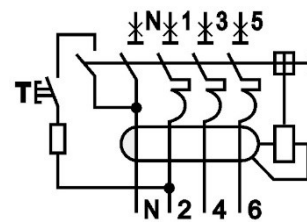
Tripping characteristics



Dimensions



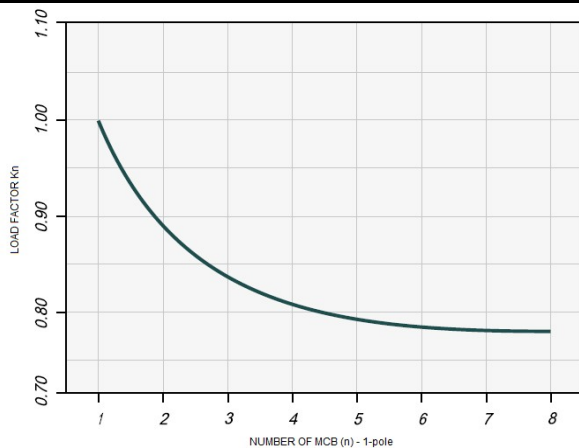
Wiring diagram



### Dependence of tripping characteristics on ambient temperature

T [°C]	In (T) [A]						
	6 A	10 A	16 A	20 A	25 A	32 A	40 A
-20	8	13.5	20	24.5	29.8	39.5	50.5
-15	7.8	13.3	19.8	24.3	29.7	39.3	50.4
-10	7.6	13	19.5	24	29.5	39	50.2
-5	7.3	12.7	19.2	23.8	29.3	38.8	50
0	7.2	12.5	19.1	23.7	29.2	38.6	48.8
5	7	12.3	18.8	23.5	29	38.4	48.6
10	6.8	12.1	18.6	23.3	28.8	38.2	48.4
15	6.6	12	18.5	23.1	28.6	38	48.1
20	6.4	11.8	18.3	22.8	28.4	37.8	47.8
25	6.2	11.5	18	22.6	28.2	37.5	47
30	6	10	16	20	25	32	40
35	6	9.9	15.7	19.7	24.6	31.5	39.2
40	5.9	9.8	15.4	19.3	24.3	31.1	38.8
45	5.8	9.8	15.1	18.8	24	30.8	38.3
50	5.7	9.6	14.9	18.5	23.8	30.1	38
55	5.6	9.5	14.7	18.2	23.5	29.5	36.5

### Correction factor laterally mounted miniature circuit breakers



Correction factor (K) in mutual thermal influence of parallel mounted breakers at rated load.

### Power loss per pole

In [A]	6A	10A	16A	20A	25A	32A	40A
P [W]	2	2	2,6	2,9	3	3,5	4,6