

RCBO RCM18

Data Sheet V1.0



The RCM18 electromagnetic type RCBO's (residual current-breaker with overload protection) is just 1 module width (18mm). With a breaking capacity of 6kA and the diversity in range and types makes it the better solution for protection against overcurrent and earth fault currents. The series ensures the best possible safety for people and equipment. The diversity in range and types makes it the one solution for almost every situation.



RCM18 residual current breaker with overcurrent protection

RCM18 is a RCBO compliant to product standard IEC/EN 61009 and with the following main technical features

- Breaking capacity 6kA
- Electromagnetic (IEC/EN 61009-2-1)
- Type A
- Sensitivity 10, 30, 100, 300 mA
- Tripping characteristics B – C
- rated current up to 40A

Application benefits

- Supply possible from top and bottom
- Pin type busbar connection (above and below) up to 16mm² and cable connection up to 10mm² cables.
- Terminal cover with sealing possibility for operator safety
- Family feeling in the SEP Compact range modular components



RCBO's RCM18

Technical Data



	Type			RCM18
	Standards			IEC/EN 61009-1; IEC/EN 61009-2-1
	Certification			CE, UKCA, CB, KEMA KEUR
	Country of origin			CN
	RoHS Compliance Status			Compliant, No Exemption
Electrical features	Type (wave form of the earth leakage sensed)			A
	Protection			Electromagnetic (IEC/EN 61009-2-1)
	Number of poles			1p+n
	Rated current	I_n	A	$6 \leq I_n \leq 40$
	Rated sensitivity	$I_{\Delta n}$	A	0.01 - 0.03 - 0.1 - 0.3
	Rated voltage	U_e	V	230 / 240
	Operating time	Type A		instantaneous
	Insulation voltage	U_i	V	500 V AC
	Overvoltage category			III
	Pollution degree			2
	Operating voltage of circuit test		V	105 ... 264V
	Rated frequency		Hz	50 - 60
	Rated breaking capacity acc. to IEC/EN 61009-1	I_{cu}	A	6.000
	Rated residual breaking capacity $I_{\Delta m}$ according to EN 61009-1	$I_{\Delta m}$	A	3.000
	Rated impulse withstand voltage (1.2/50) U_{imp}		kV	4
	Dielectric test voltage at ind. freq. for 1 min.		kV	2.5 kV (50 / 60Hz, 1 min.)
	Thermomagnetic release – characteristics	B: $3 I_n \leq I_n \leq 5 I_n$		■
		C: $5 I_n \leq I_n \leq 10 I_n$		■
	Energy limiting class acc. to EN 61009-1			3
	Surge current resistance (wave 8/20)			3000
Mechanical features	Housing			Insulation group I - II, RAL 7035
	Toggle			Insulation group II, RAL 5017
	Test button			Insulation group II, RAL 2000
	Contact position indication			Green / Red window
	Earth fault trip indication			White window
	Electrical life	operations		4.000
	Mechanical life	operations		10.000
	Protection degree acc. to EN 60529	housing		IP4X
		terminals		IP2X
	Shock resistance acc. to IEC/EN 60068-2-27			25g - 2 shocks - 13ms
	Vibration resistance acc. to IEC/EN 60068-2-6			0.1 mm or 1 g - 20 cycles at 5...150...5 Hz
	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%
	Reference temperature for setting of thermal element	°C		30
	Ambient temperature (with daily average $\leq +35$ °C)	°C		-25... +40
Storage temperature	°C		-40... +70	

RCBO's RCM18

Technical Data



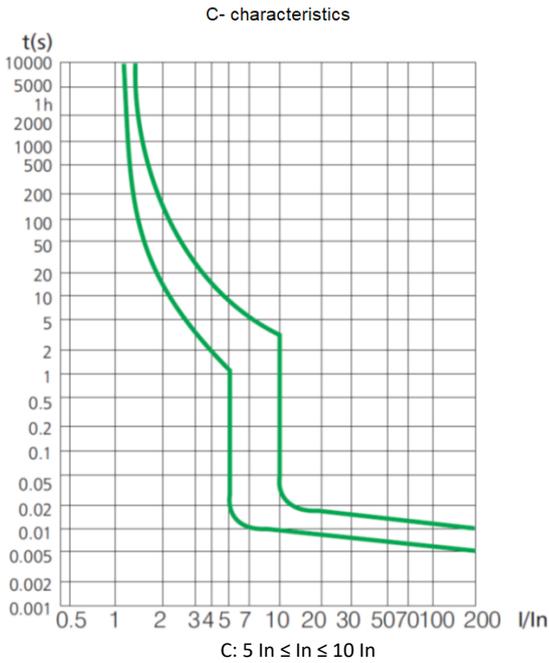
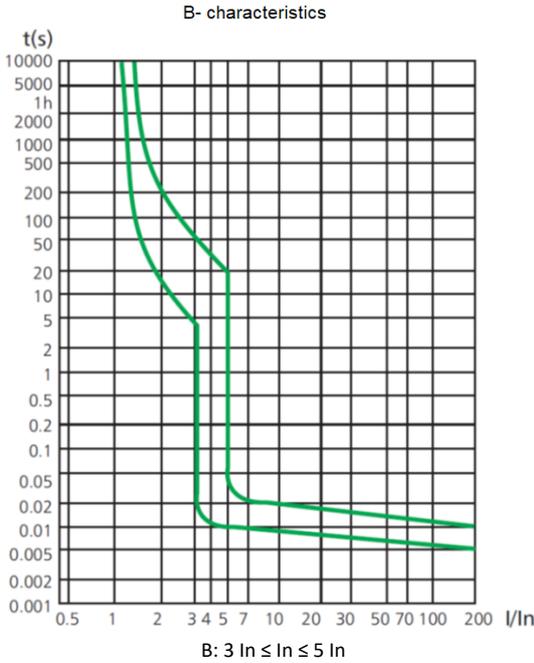
Type			RCM18
Installation	Terminal type	bottom / top	lift / open-mouthed
	Terminal size for cables	bottom / top	mm ² 16/10
	Terminal size for PIN busbar	bottom / top	mm ² 10/16
	Solid /stranded wiring		1x 1.5mm ² - 16mm ² 2 x 1.5mm ² - 10mm ² *
	Flexible wires with or without ferrules		1x 1.5mm ² - 10mm ² 2 x 1.5mm ² - 6mm ² *
	Tightening torque	bottom / top	1.2 Nm
	Stripping length of the cable		10mm
	Mounting		on DIN rail EN 60715 (35mm) by means of mounting clip
	Mounting position		Any
	Supply from		Top / bottom terminals
	Dimensions (H x W x D)	mm	90 x 18 x 72
Weight	kg	0,127	
Packing	Packing A	QTY	1
		Dimensions (H x W x D)	mm 100 x 20 x 78
		Weight	kg 0,137
	Packing B (x A)	QTY	10
		Dimensions (H x W x D)	mm 252 x 105 x 89
		Weight	kg 1,44
	Packing C (x B)	QTY	120
		Dimensions (H x W x D)	mm 540 x 270 x 190
		Weight	kg 14,5
	CN-code		85362010
Combination with auxiliary elements	Auxiliary contact		Yes
	Signal contact / auxiliary contact		Yes
	Shunt trip		NA
	Auxiliary contact for bottom fitting		NA
	Undervoltage release		NA
	Overvoltage release		NA
	Motor operating device		NA

* Check local installation rules, this type of connection is not advised. Special add-on terminals are available.

RCBO's RCM18

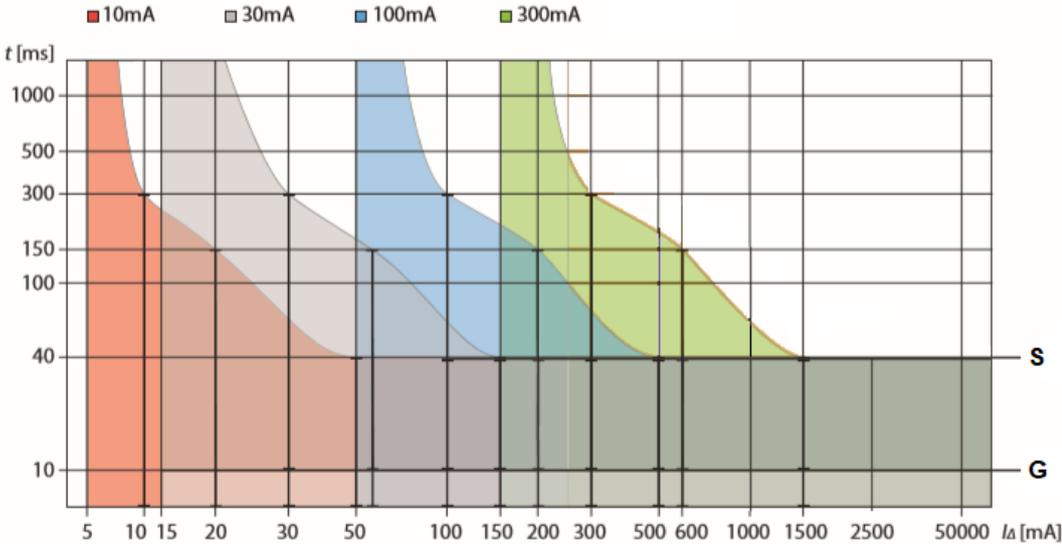
Technical Data

Tripping characteristics



Tripping Characteristics (IEC/EN 61008)

Tripping characteristics, tripping time range and selectivity of instantaneous residual current devices (surge current-proof [G] and surge current-proof – selective [S] residual current devices are not available in the RCM18 series).



RCBO's RCM18

Technical Data

Performance in altitude*

Elevation [m]	2000	3000	4000	5000	6000
Rated current [A]	1 x In	0,95 x In	0,92 x In	0,90 x In	0,88 x In
Rated voltage [V]	1 x Un	0,85 x Un	0,75 x Un	0,65 x Un	0,55 x Un

* the RCBO is designed for standard level operations, performance information on higher altitude is not available

Derating in temperature RCM18

Max operating current depending on the ambient temperature (daily average $\leq +35$ °C) of characteristics type B and C.

In [A]	Ambient temperature [°C]										
	-25	-15	-5	10	30	40	45	55	60	65	70
6	7.0	6.8	6.6	6.4	6	5.7	5.6	5.3	5.2	5.1	4.9
10	12.3	11.9	11.4	10.8	10	9.5	9.3	8.8	8.6	8.4	8.1
13	15.1	14.7	14.3	13.7	13	12.5	12.3	11.8	11.6	11.3	11.1
16	19.1	18.6	18	17.1	16	15.2	14.9	14.1	13.8	13.4	13
20	24.8	23.9	23	21.7	20	19	18.5	17.5	17	16.5	16.1
25	31.4	30.2	29.1	27.3	25	23.9	23.3	22.1	21.6	21.1	20.4
32	40.1	38.6	37.1	34.9	32	30.4	29.6	28	27.3	26.5	25.7
40	51	49	47	44	40	38.1	37.1	35.1	34.1	33.1	32.1

Influence of adjacent devices

Number of devices	1	2-3	4-5	6-9	≥ 10
Correction factor	1	0,9	0,8	0,7	0,6

These values are provided by recommendation IEC 61439-1 and standards EN 61439-1. In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing element article number 2119000010 (0.5 module).

Power loss, resistance, voltage drop

RCM18 (1p+N)

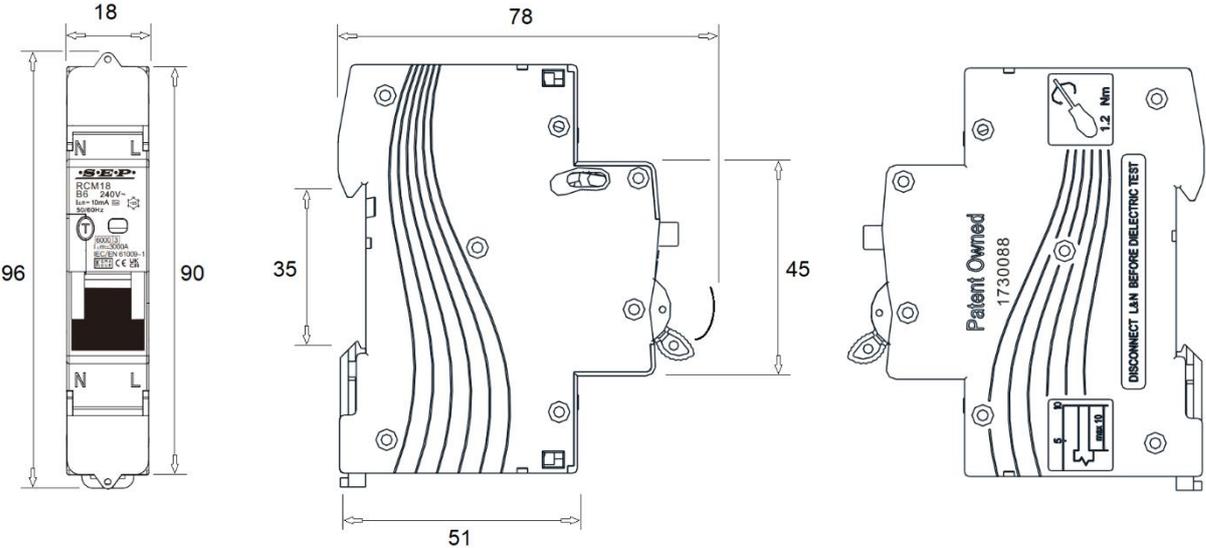
In [A]	Component voltage drop [V]	Component resistance [mΩ]	Powerloss (W)			
			Average per pole	Neutral pole	Phase pole	Total
6	0.21	34.53	0.62	0.04	1.2	1.24
10	0.18	18.19	0.89	0.1	1.69	1.77
16	0.18	11.37	1.36	0.1	2.60	2.71
20	0.13	6.72	1.19	0.1	2.24	2.37
25	0.15	6.11	1.60	0.2	3,00	3.20
32	0.18	5.52	2.28	0.3	4.30	4.55
40	0.23	5.70	3.68	0.3	7.04	7.35

RCBO's RCM18

Technical Data

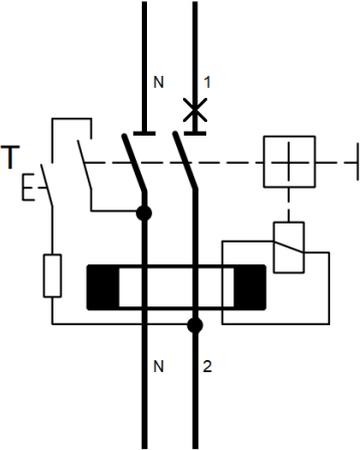
Overall dimensions

All measurements in mm



RCM18 (1p+n)

Connection diagram



RCM18 (1p+n)

RCBO's RCM18

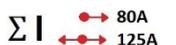
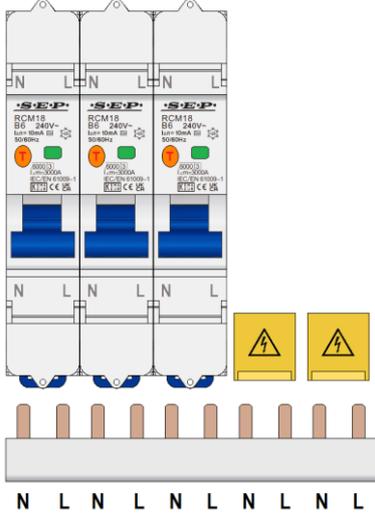
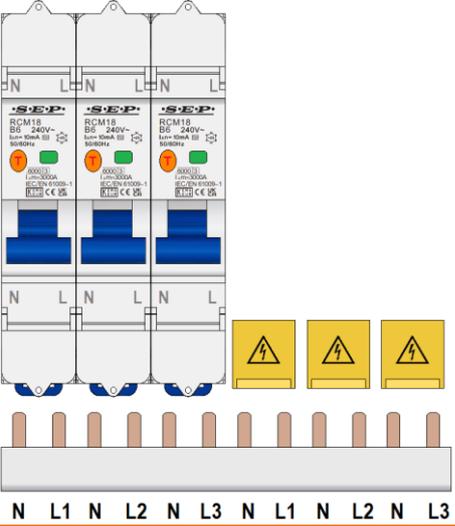
Order codes

$I\Delta n$	I_{nom}	B- characteristic	C- characteristic
10mA	6 A	3104310106	3104320106
	10 A	3104310110	3104320110
	13 A	3104310113	3104320113
	16 A	3104310116	3104320116
30mA	6 A	3104310006	3104320006
	10 A	3104310010	3104320010
	13 A	3104310013	3104320013
	16 A	3104310016	3104320016
	20 A	3104310020	3104320020
	25 A	3104310025	3104320025
	32 A	3104310032	3104320032
	40 A	3104310040	3104320040
100mA	6 A	3104310206	3104320206
	10 A	3104310210	3104320210
	13 A	3104310213	3104320213
	16 A	3104310216	3104320216
	20 A	3104310220	3104320220
	25 A	3104310225	3104320225
	32 A	3104310232	3104320232
	40 A	3104310240	3104320240
300mA	6 A	3104310306	3104320306
	10 A	3104310310	3104320310
	13 A	3104310313	3104320313
	16 A	3104310316	3104320316
	20 A	3104310320	3104320320
	25 A	3104310325	3104320325
	32 A	3104310332	3104320332
	40 A	3104310340	3104320340
Auxiliary contact 1CO		3104000010	
Alarming contact 1CO		3104000020	



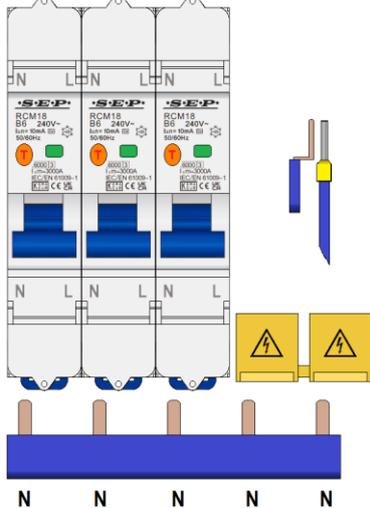
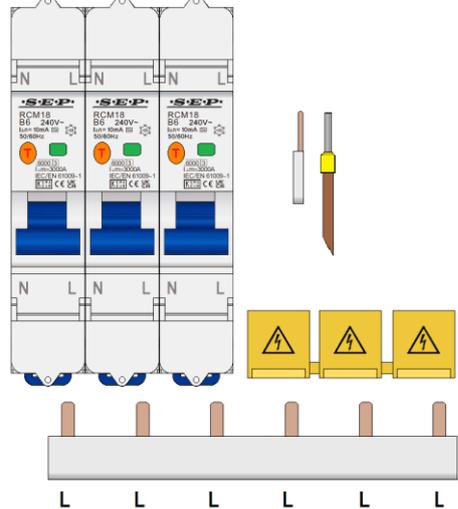
RCBO's RCM18

Order codes for connective rail

 RCM18	10mm ² (closed end - non cuttable)	16mm ² (cut to size with end-caps)	
	 PIN	 PIN	
Busbar / connective rail type 2 pole (phase neutral) N1-N1-N1... 	No. devices 3 4 5 6 8 9 10 12 18 24 54	PIN 2305122906 2305122908 2305122910 2305122912 2305122916 - 2305122920 2305122924 - - - -	PIN 2306020906 2306020908 2306020910 2306020912 - 2306020918 - 2306020924 2306020936 2306020948 2306162200
3N pole (3 phase neutral) N1-N2-N3... 	6 9 12 15 18 21 24 54	2305142912 2305142918 2305142924 - - - - -	2306050912 2306050918 2306050924 2306050930 2306050936 2306050942 2306050948 2306162400
	Open mouth covers for busbar PIN	2115900015	

RCBO's RCM18

Order codes for connective rail

Busbar / connective rail type	RCM18	10mm ² (closed end - non cuttable)	16mm ² (cut to size with end- caps)
	No. devices	PIN	PIN
1 phase – neutral bar 	2	2305101992	-
	3	2305101993	-
	4	2305101994	-
	5	2305101995	-
	6	2305101996	-
	8	2305101998	-
	10	2305101990	-
	12	2305101991	-
1 phase – phase bar 	2	2305101002	-
	3	2305101003	-
	4	2305101004	-
	5	2305101005	-
	6	2305101006	2306010006
	7	2305101007	-
	8	2305101008	-
	9	2305101009	2306010012
	10	2305101010	-
	11	2305101011	-
	12	2305101012	2306010012
	13	2305101013	-
	15	-	2306010015
	18	-	2306010018
	21	-	2306010021
24	-	2306010024	
54	-	2306160100	
	Open mouth covers for busbar PIN/FORK	2115900010	

RCBO's RCM18

Order codes accessories

Add-on terminals

Reference image	Wire size	PIN connection high		PIN connection Low	
		Grey	Blue	Grey	Blue
	2x10mm ² solid/stranded 2x6mm ² flexible	2115900040	2115900540	2115900041	2115900541

Marker - spacer

Reference image	Description	Code
	Component Spacer 0,5mm	2119000010

Lockout

Reference image	Description	Code
	Lockout set - complete	2115909099
	Locking devices adaptor	2115909015
	Locking device screw adaptor	2115909010
	Padlock with 2 identical keys	2115909020
	Warning tag (English)	2115909030

SEP Europe®

A brand of Schotman Elektro B.V.

www.sep-europe.com

www.schotmanelektro.eu

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. Schotman Elektro B.V. does not accept any responsibility whatsoever for potential errors or possible lack of information in this document

Copyright© 2025 Schotman Elektro B.V., All rights reserved