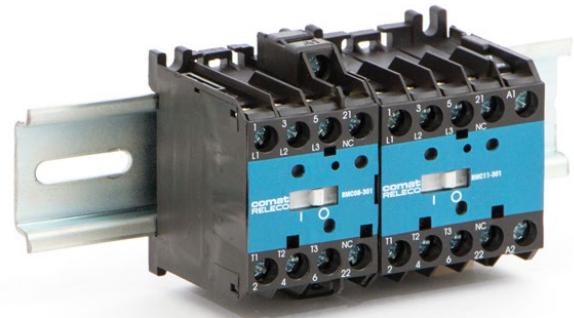


Mini Contactor RMC

1 Features

- Rated operational current 8.5 ... 11.3 A (AC-3)
- Coil voltages DC 24 V / AC 24, 230 V
- 3 main contacts and auxiliary contact NC or NO
- Extendable with auxiliary contact block
- Mounting position any



2 Description

The miniature industrial contactors RMC are reliable switching components for increased loads in industrial environments. Thanks to comprehensive accessories such as auxiliary contacts and motor protection units, they are suitable for versatile applications. The RMC miniature contactors offer high performance with a compact shape. The switching capacity is impressive at 8.5 A / 4 kW (AC-3) with an installation width of only 35 mm. The contactors can be installed on rail DIN horizontally as well as vertically.

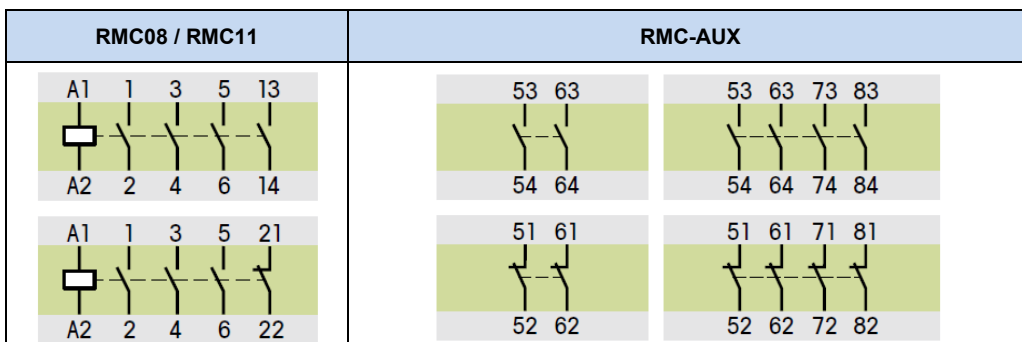
3 Type designation code

1	2	3	4	5	6	7
RMC	08	-	3	1	0	/ AC 230V

1	2	3	4
Product name	Rated operation current AC-3 [A]	Number of main contacts	Number of auxiliary contacts NO
RMC	08 = 8.5A (4kW)	3	1
	11 = 11.3A (5.5kW)		0

5	6	7
Number of auxiliary contacts NC	Voltage type	Control supply voltage
0	DC	24V
1	AC	230V

4 Connection diagram



5 Specifications

5.1 General data

		RMC08	RMC11
Standards		IEC/EN 60947-5-1, IEC 60947-4-1	
Approvals		CE	
Modul width	mm	35 (AC) / 45 (DC)	45
Number of main contacts		3	
Number of auxiliary contacts		1	
Degree of protection		IP20	
Pollution degree		3	
Ambient temperature: contact open	°C	-20 ... +60	
Ambient temperature: contact close	°C	-20 ... +45	
Storage temperature	°C	-30 ... +80	
Operating frequency (no load)	op. c./h	3'000	
Mechanical endurance	op. c.	10'000'000	
Weight	g	160 (AC) / 215 (DC)	170 (AC) / 215 (DC)

5.2 Power supply

		RMC08	RMC11
Range of control voltage for switch-on U_c	%	85 ... 110	
Range of control voltage for drop out U_c	%	20 ... 75 (AC) / 10 ... 75 (DC)	
Voltage type		AC / DC	
Frequency of AC control voltage	Hz	50 / 60	
Coil consumption: switch-on	VA/W	39 / 34	
Coil consumption: operation	VA/W	8.1 / 4	
Delays: make	ms	10 ... 15	
Delays: brake	ms	6 ... 15	5 ... 10
Terminal capacity: flexible	mm ²	0.5 ... 2.5	
Screw		M3.5	
Screw head		PZ2	
Tightening torque	Nm	1.2	

5.3 Electrical data – main contact

		RMC08	RMC11
Contact reliability		> 17 V / > 50 mA	
Power dissipation per pole	W	1.2	
Overload current - 10 s	A	68	90.4
Maximum back-up fuse: gL / gG (type 2)	A	25	
Rated insulation voltage U_i	V	690	
Rated impulse withstand voltage U_{imp}	kV	6	
Rated operational voltage U_e	V	690	
Rated frequency	Hz	50/60	
Thermal current I_{th}	A	20	
Rated operational current for AC-1, AC-7a, AC-21	A	20	
Operational power AC-1, AC-7a, AC-21: 1 x 230 V	kW	4.4	
Operational power AC-1, AC-7a, AC-21: 3 x 230 V		7.5	
Operational power AC-1, AC-7a, AC-21: 3 x 400 V		13	
Operational power AC-1, AC-7a, AC-21: 3 x 500 V		17.5	
Operational power AC-1, AC-7a, AC-21: 3 x 690 V		22	
Operating frequency AC-1, AC-7a, AC-21	op. c./h	600	
Electrical endurance AC-1, AC-7a, AC-21	op. c.	200'000	
Rated operational current AC-3, AC-7b, AC-23	A	8.5	11.3
Operational power AC-3, AC-7b, AC-23: 1 x 230 V	kW	0.75	1.1
Operational power AC-3, AC-7b, AC-23: 3 x 230 V		2	3
Operational power AC-3, AC-7b, AC-23: 3 x 400 V		4	5.5
Operational power AC-3, AC-7b, AC-23: 3 x 500 V		4	5.5
Operational power AC-3, AC-7b, AC-23: 3 x 690 V		4	5.5
Operating frequency AC-3, AC-7b, AC-23	op. c./h	600	
Electrical endurance AC-3, AC-7b, AC-23	op. c.	1'000'000	
Rated operational current AC-4	A	3.5	5
Operational power AC-4: 3 x 230 V	kW	0.5	0.75
Operational power AC-4: 3 x 400 V		1.5	2.2
Operational power AC-4: 3 x 500 V		1	1.5
Operational power AC-4: 3 x 690 V		1	1.5
Operating frequency AC-4	op. c./h	300	
Electrical endurance AC-4	op. c.	100'000	

		RMC08	RMC11
Switching of capacitors AC-6b, AC-7c (230 V)	μF		30
Operating frequency AC-6b, AC-7c	op. c./h		600
Electrical endurance AC-6b, AC7c	op. c.		100'000
Terminal capacity: flexible	mm ²		0.5 ... 2.5
Screw			M3.5
Screw head			PZ2
Tightening torque	Nm		1.2

5.4 Electrical data – auxiliary contact

5.4.1 Auxiliary contact contactor

		RMC08	RMC11
Power dissipation per pole	W		1.2
Maximum back-up fuse: gL / gG (type 2)	A		20
Rated insulation voltage U _i	V		690
Rated operational current AC-15: 1 x 230 V	A		6
Rated operational current AC-15: 1 x 400 V			4
Rated operational current AC-15: 1 x 500 V			2
Rated operational current AC-15: 1 x 690 V			1
Operating frequency AC-15	op. c./h		1'200
Electrical endurance AC-15	op. c.		1'000'000
Rated operational current DC-13 24V/110V	A		4 / 0.25
Operating frequency DC-13	op. c./h		1'200
Terminal capacity: flexible	mm ²		0.5 ... 2.5
Screw			M3.5
Screw head			PZ2
Tightening torque	Nm		1.2

5.4.2 Auxiliary contact block AUX

		RMC-AUX (2 Pol)	RMC-AUX (4 Pol)
Standards		IEC/EN 60947-5-1, IEC 60947-4-1	
Approvals		CE	
Modul width	mm	24	44
Number of contacts		2	4
Degree of protection		IP20	
Weight	g	20	40
Maximum back-up fuse: gL / gG (type 2)	A	20	
Rated insulation voltage U _i	V	690	
Rated impulse withstand voltage U _{imp}	kV	6	
Rated operational voltage U _e	V	690	
Rated operational current AC-15: 1 x 230 V	A		6
Rated operational current AC-15: 1 x 400 V			4
Rated operational current AC-15: 1 x 500 V			2
Rated operational current AC-15: 1 x 690 V			1
Operating frequency AC-15	op. c./h	1'200	
Electrical endurance AC-15	op. c.	500'000	
Rated operational current DC-13 24V/110V	A	3 / 0.15	
Max operating freq DC-13	op. c./h	1'200	
Electrical endurance DC-13	op. c.	500'000	
Terminal capacity: flexible	mm ²	0.5 ... 2.5	
Screw		M3.5	
Screw head		PZ2	
Tightening torque	Nm	1.2	

5.5 Safety

		RMC08	RMC11
MTTF – Mean time to failure (AC-1)	h	5.000	
MTTF – Mean time to failure (AC-3)		25.000	
MTTF _d – Mean time to failure dangerous (AC-1)	h	6.666	
MTTF _d – Mean time to failure dangerous (AC-3)		33.333	
B10 (AC-1)	op. c.	150.000	
B10 (AC-3)		750.000	
B10 _d (AC-1)	op. c.	200.000	
B10 _d (AC-3)		1.000.000	

		RMC08	RMC11
λ - Failure rate = $0.1 \times n_{op} / B10$ (AC-1)	1/h	0.0002	
λ - Failure rate = $0.1 \times n_{op} / B10$ (AC-3)		0.00004	
λ_d - dangerous failure rate $0.1 \times n_{op} / B10d$ (AC-1)	1/h	0.00015	
λ_d - dangerous failure rate $0.1 \times n_{op} / B10d$ (AC-3)		0.00003	
Ratio of dangerous failures	%	75	
n_{op} - operating cycles	op. c./h	300	

5.6 Electrical endurance

Diagram 1

Electrical endurance of contactor relays and auxiliary contacts of motor contactors

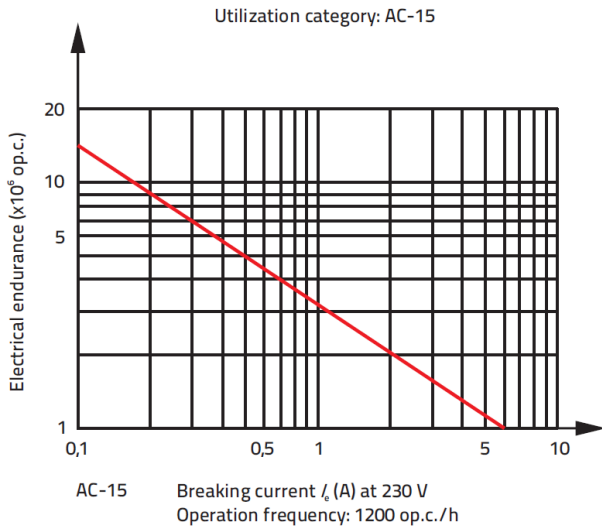
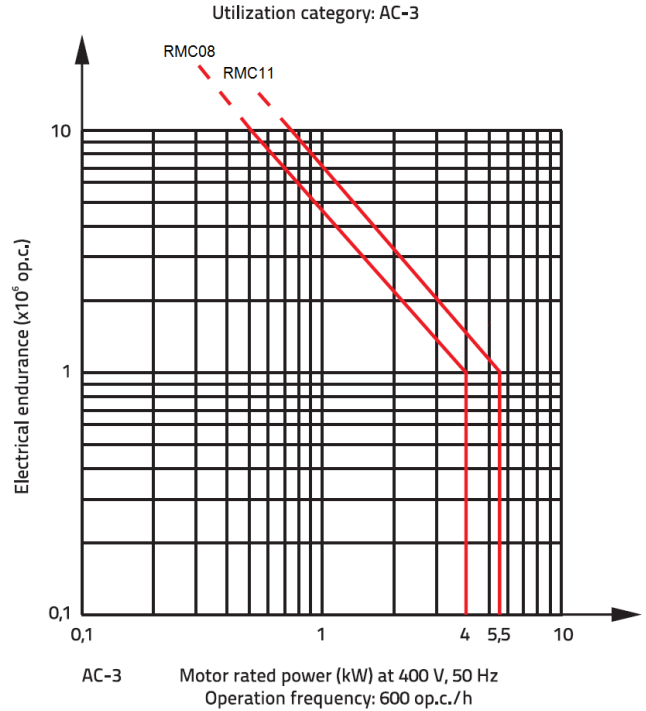
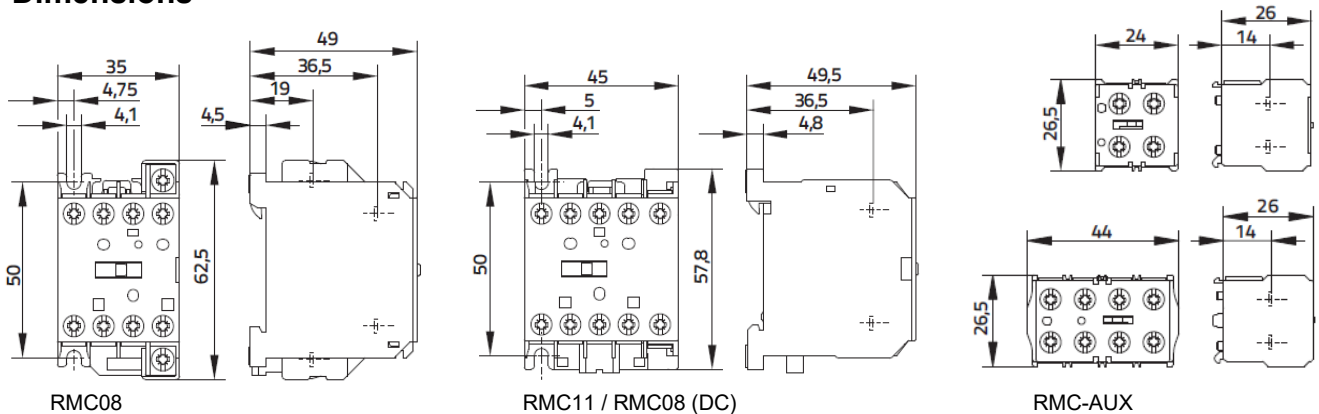


Diagram 2

Electrical endurance of main contacts of motor contactors



6 Dimensions



7 Standards

IEC/EN 60947-4-1

Low voltage devices - General characteristics

IEC/EN 60947-5-1

Low voltage devices - Control circuit devices and switching elements

CE, RoHS