



# RM series

## RM2/3/7 2/3 Pole 10/16 Amp

## RM5/6 VDE 3mm Contact Gap

## RM8 25 Amp

UL File E214025

NR 5330, NR 5365, NR 5333

CE

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

### Features

- Contact arrangements to 3PDT.
- Plug-in or PC terminals.
- Push to test button and mechanical indicator.
- RM 5/6 VDE approved with 3mm contact gap.

### Contact Data @ 25°C

#### Arrangements:

**RM 2/3/7:** 2 Form C (DPDT) and 3 Form C (3PDT).

**RM 5/6:** 2 Form A (DPST-NO) and 3 Form A (3PST-NO).

**RM 8:** 2 Form C (DPDT).

**Material:** Silver-cadmium oxide.

**Expected Mechanical Life:** 20 million operations minimum.

#### Contact Ratings:

##### UL/CSA @ 25°C

**RM 2/5:** 16A, 250VAC G.P., 30,000 Ops.

16A, 28VDC G.P., 30,000 Ops.

1 HP, 120VAC G.P., 30,000 Ops.

1HP, 240VAC G.P., 30,000 Ops.

**RM 3/6:** 10A, 250VAC G.P., 30,000 Ops.

10A, 28VDC G.P., 30,000 Ops.

**RM 3/6/7:** 1 HP, 120VAC, 30,000 Ops.

1/2 HP, 240VAC, 480VAC, 600VAC, 30,000 Ops.

1.5 HP, 240VAC, 3 Phase, 30,000 Ops.

**RM 7:** 16A, 250VAC G.P., 30,000 Ops.

16A, 10VDC G.P., 30,000 Ops.

**RM 8:** 25A, 240VAC, G.P., 30,000 Ops.

1.5 HP, 120VAC, G.P., 30,000 Ops.

2 HP, 240, G.P., 30,000 Ops.

##### VDE @ 35°C

**RM 2:** 16A, 400VAC, 100,000 Ops.

**RM 3/6:** 10A, 400VAC, 100,000 Ops.

**RM 5/7:** 16A, 400VAC, 100,000 Ops.

**RM 8:** 25A, 250VAC, 10,000 Ops.

### AC Coil Data @ 25°C

Nominal Voltage VAC	Operate Voltage VAC	Drop-out Voltage VAC	DC Resistance	DC Resistance	Nominal Coil Current (mA)	Nominal Coil Current (mA)
			±10% RM 2 RM 3	±10% RM 5 RM 6 RM 7 RM 8		
06	4.8	2.4	5.3	4.7	381.7	476.7
12	9.6	4.8	24.0	19.5	182.5	225.8
24	19.2	9.6	86.0	80.0	94.2	109.2
48	38.4	19.2	345.0	320.0	47.5	54.2
60	48.0	24.0	544.0	500.0	37.8	43.7
115	92.0	46.0	2,000.0	1,850.0	20.6	23.0
230	184.0	92.0	8,300.0	7,500.0	10.1	11.7
400	320.0	160.0	27,500.0	23,500.0	5.8	6.5

### Operate Data

**Must Operate Voltage:** see coil data.

**Operate Time :** Approximate ms

	RM 2/3/7	RM 5/6	RM 8
<b>Pull-in</b>	15	15	15
<b>Drop Out</b>	10	10	15
<b>Bounce</b>	3	4	3

**Switching Rate:** 1000 ops/hr max. at rated load.

### Initial Dielectric Strength

**Between Open Contacts:** 1,500VAC (RM 5/6 2,500VAC).

**Between Coil and Contacts:** 2,500VAC.

**Creepage/Clearance coil-contact:** 6/3.5mm (RM 8 4/2.8).

### DC Coil Data @ 25°C

Nominal Voltage VDC	Operate Voltage VDC	Drop-out Voltage VDC	DC Resistance	DC Resistance	Nominal Coil Current (mA)	Nominal Coil Current (mA)
			±10% RM 2 RM 3 RM 8	±10% RM 5 RM 6 RM 7		
06	4.5	0.9	32	24	187.5	250.0
12	9.0	1.8	110	86	109.1	139.5
24	18.0	3.6	475	345	50.5	69.6
48	36	7.2	2,000	1,340	24.0	35.8
60	45	9.0	2,850	2,200	21.1	27.3
110	82.5	16.5	10,000	7,300	11.0	15.1
221	165	33	40,000	30,000	5.5	7.3

### Environmental Data

#### Temperature Range:

**Operating:** -45°C to maximum °C listed below.

	RM2	RM3	RM5	RM6	RM7	RM8
<b>DC Coil</b>	+70°C	+60°C	+60°C	+60°C	+60°C	+65°C
<b>AC Coil</b>	+55°C	+55°C	+50°C	+50°C	+50°C	+40°C

#### Vibration:

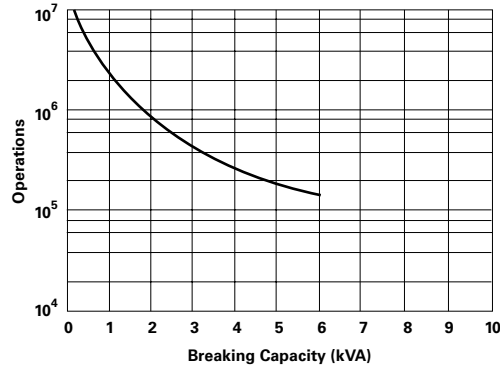
**RM2/3/7:** 30 to 150 Hz at 5g N/O, 2g N/C

**RM5/6:** 30 to 150 Hz at 12g N/O.

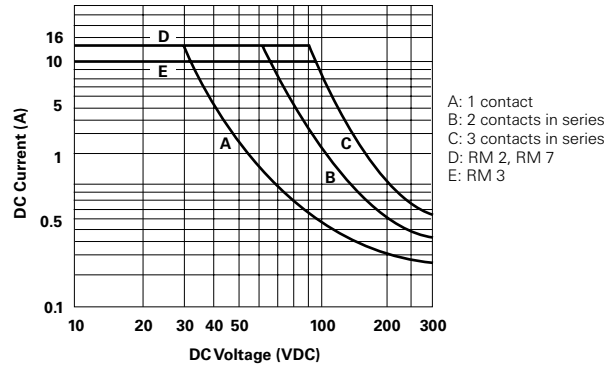
**RM8:** 30 to 150 Hz at 10g N/O, 5g N/C

**RM2/3/7**  
**2/3 POLE 10/16A**

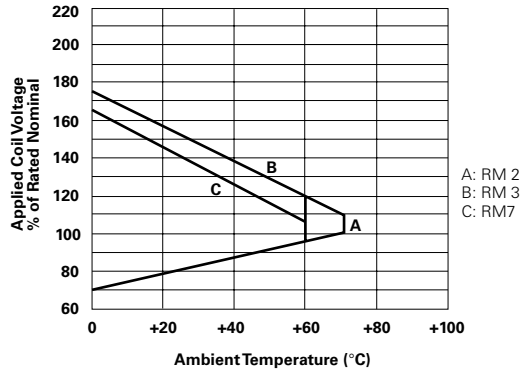
**Contact Life**



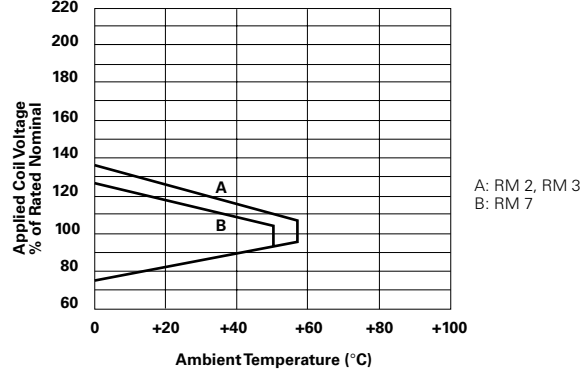
**Max. DC Load Breaking Capacity**



**DC Coil Operating Range**

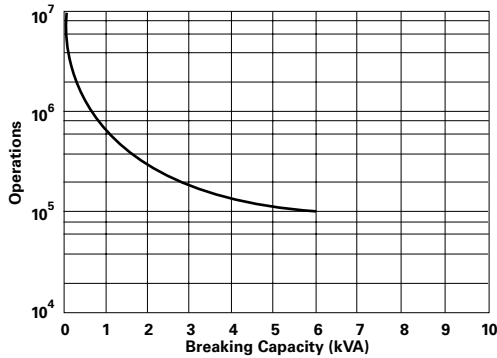


**AC Coil Operating Range**

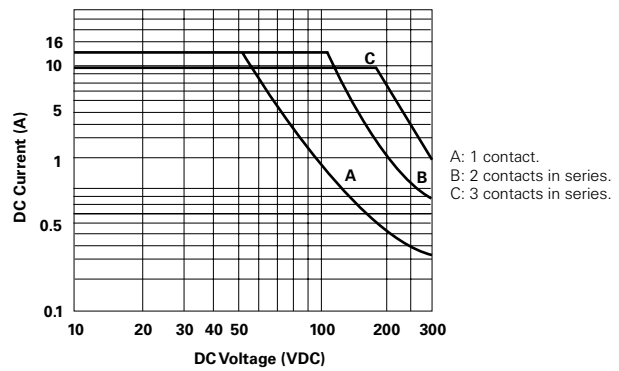


**RM5/6**  
**2/3 POLE 10/16A**  
**(Contact gap 3 mm)**

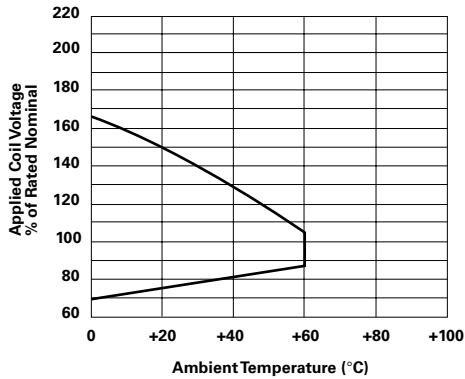
**Contact Life**



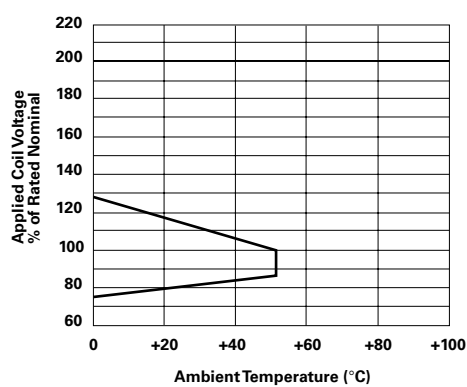
**Max. DC Load Breaking Capacity**



**DC Coil Operating Range**

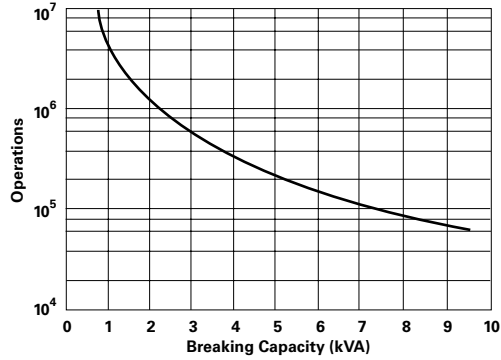


**AC Coil Operating Range**

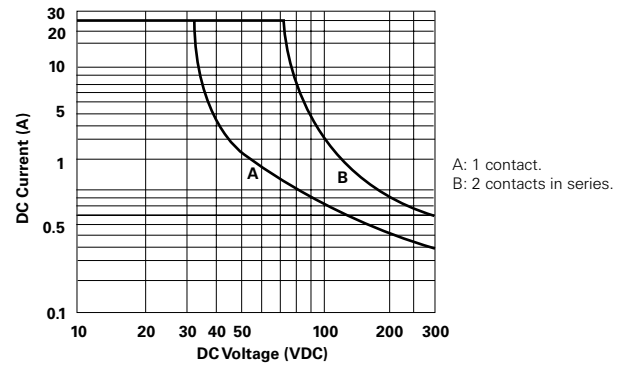


**RM8  
2 POLE 25A**

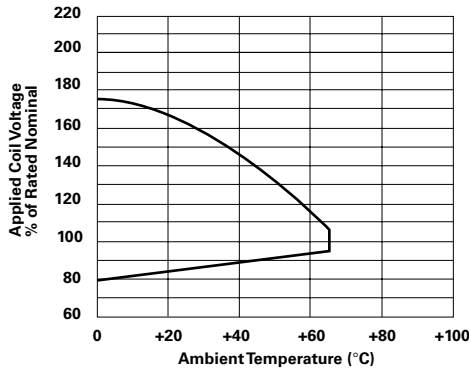
**Contact Life**



**Max. DC Load Breaking Capacity**



**DC Coil Operating Range**



**Ordering Information**

Typical Part Number ▶

**RM**

**2**

**3**

**2**

**024**

**1. Basic Series:**

RM = General purpose relay.

**2. Contact Arrangement and Rating:**

- 2 = 2 Form C (DPDT) 16 Amp
- 3 = 3 Form C (3PDT) 10 Amp
- 5 = 2 Form A (DPST-NO) 16 Amp 3mm Contact Gap
- 6 = 3 Form A (3PST-NO) 10 Amp 3mm Contact Gap
- 7 = 3 Form C (3PDT) 16 Amp
- 8 = 2 Form C (DPDT) 25 Amp (Available only with enclosure 5, 8, and 9.)

**3. Test:**

- 0 = without push-to-test-button.
- 3 = with push-to-test-button.

**4. Enclosure:**

- 2 = Plain Case .187 (4.75mm) quick-connect (Not available with RM 8).
- 3 = Bracket Mount Case 0.187 (4.75mm) quick connect. (Not available with RM 8)
- 5 = Bracket Mount Case 0.250 (6.35mm) quick connect.
- 7 = Plain Case printed circuit (not available with RM8).
- 8 = Case with snap-on attachment on top 0.250 (6.35mm) quick-connect.
- 9 = Case with snap-on attachment on side 0.250 (6.35mm) quick-connect.

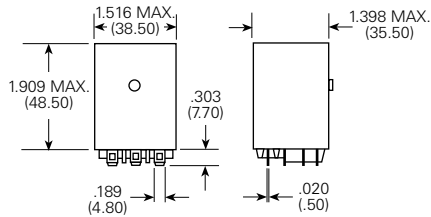
**5. Coil Voltage:**

Standard	with LED	with protection diode	with LED and protection diode		Standard	with LED	with protection diode	with LED and protection diode	
006	006	OA6	LA6	=6VDC	506	R06	—	—	=6VAC
012	L12	OB2	LB2	=12VDC	512	R12	—	—	=12VAC
024	L24	OC4	LC4	=24VDC	524	R24	—	—	=24VAC
048	L48	OE8	LE8	=48VDC	548	R48	—	—	=48VAC
060	L60	OG0	LG0	=60VDC	560	R60	—	—	=60VAC
110	M10	1B0	MB0	=110VDC	615	S15	—	—	=115VAC
220	N21	2C1	NC1	=220VDC	730	T30	—	—	=230VAC
					900	V00	—	—	=400VAC

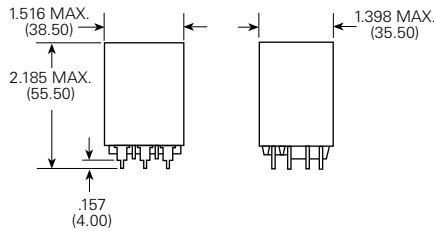
**Our authorized distributors are more likely to stock the following items for immediate delivery.**

RM202012	RM203012	RM205024	RM302024	RM502524	RM602615	RM702615	RM703615	RM805615
RM202024	RM203024	RM205524	RM302524	RM502615	RM702012	RM703012	RM805012	
RM202524	RM203524	RM205615	RM302615	RM602024	RM702024	RM703024	RM805024	
RM202615	RM203615	RM302012	RM502024	RM602524	RM702524	RM703524	RM805524	

**Outline Dimensions**  
**RM .187 quick connect terminals**

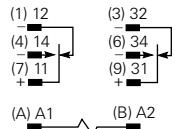


**RM with PCB terminals**

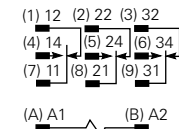


**Wiring Diagrams (Bottom Views)**

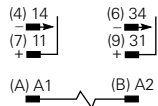
**RM2/8 2 Pole**



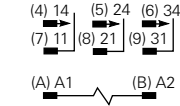
**RM3/7 3 Pole**



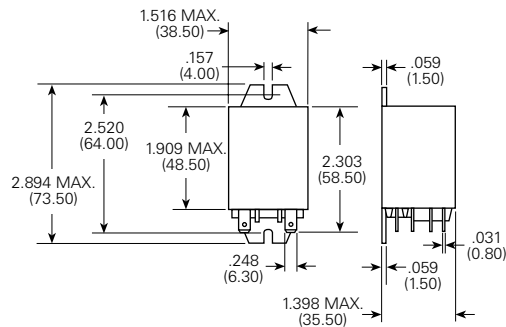
**RM5 2 Pole**



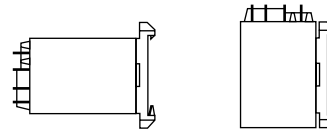
**RM6 3 Pole**



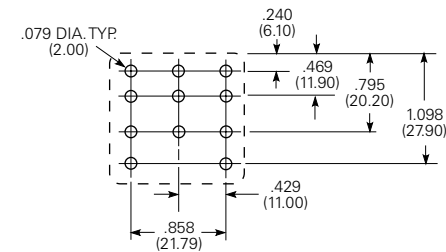
**RM .250 quick connect terminals, with brackets**



**RM with snap-on attachment**



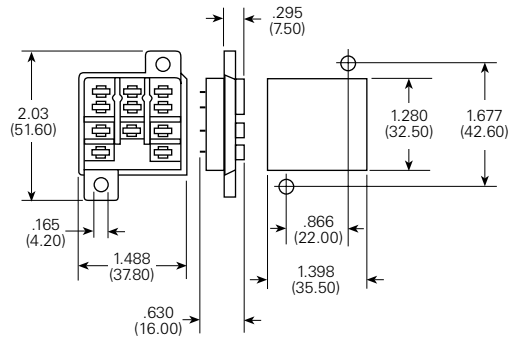
**PC Board Layout (Bottom View)**



**RM Sockets and Accessories**

**RM78700/701**

**RM78700 has QC Terminals**  
**RM78701 has Solder Terminals**



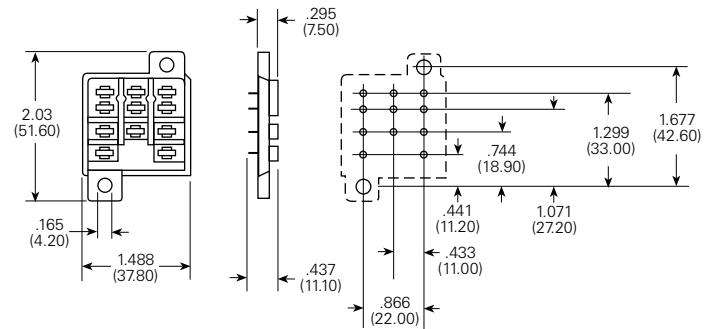
**Hold-Down Spring RM28802**

**Socket Selection Table**

Stock items are boldfaced.

Socket	Socket Termination	Hold-Down Spring
<b>RM78700</b>	.187(4.75)QC Terminals	<b>RM28802</b>
<b>RM78701</b>	Solder Terminals	<b>RM28802</b>
<b>RM78702</b>	.142(3.61)PCB Terminals	<b>RM28802</b>
<b>RM78705</b>	Screw Terminals	

**RM78702**



**Hold-Down Spring RM28802**

**RM78705**

**16A, 250VAC, Socket with Screw Terminals**

