

## Power Relay RM 2/3/7

- 2/3 pole 10/16A, 2 form C (CO) or 3 form C (CO) contacts
- Switching capacity up to 6000VA
- DC or AC coil
- Mechanical indicator
- Push-to-test button
- Plug-in version, PCB terminals, chassis- or DIN-rail mount

Typical applications  
 Elevator control, power supplies



F0163-B


**Approvals**

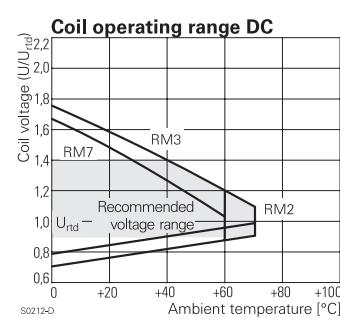
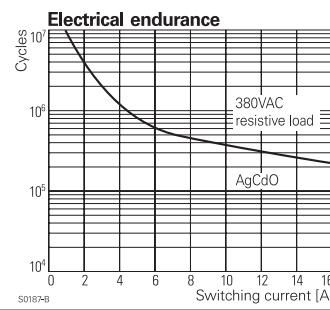
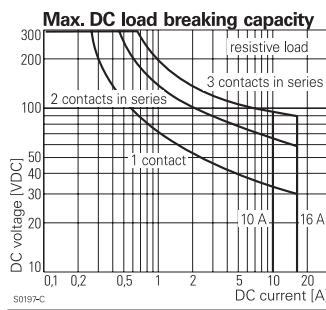
VDE Cert. No. 40003144, UL E214025

Technical data of approved types on request

Contact Data	RM2	RM3	RM7
Contact arrangement	2 form C 2 CO	3 form C 3 CO	3 form C 3 CO
Rated voltage	400VAC		
Max. switching voltage	440VAC		
Rated current	16A	10A	16A
Limiting making current, max. 20ms	40A	40A	40A
Switching power	6000VA	3800VA	6000VA
Contact material	AgNi90/10		
Min. recommended contact load	24VDC/100mA		
Frequency of operation, with/without load	960/6000h <sup>-1</sup>		
Operate/release time typ., DC coil	15/10ms		
Bounce time max., DC coil, form A/form B	4/10ms		

**Contact ratings**

Type	Contact	Load	Cycles
<b>IEC 61810</b>			
RM22	C (CO)	16A, 400VAC, cosφ=1, DC-coil, 70°C	100x10 <sup>3</sup>
RM22	C (CO)	16A, 400VAC, cosφ=1, AC-coil, 60°C	50x10 <sup>3</sup>
RM3	C (CO)	10A, 400VAC, cosφ=1, 55°C	100x10 <sup>3</sup>
RM72	C (CO)	16A, 400VAC, cosφ=1, 50°C	50x10 <sup>3</sup>
<b>UL 508</b>			
RM2	A (NO)	16A, 277VAC, general purpose, 70°C	30x10 <sup>3</sup>
RM2	A (NO)	16A, 240VAC, 1HP, 70°C	6.050
RM2	A (NO)	16A, 415VAC, resistive, 70°C	100x10 <sup>3</sup>
RM3	C (CO)	10A, 415VAC, resistive, DC-coil, 70°C	100x10 <sup>3</sup>
RM3	C (CO)	10A, 415VAC, resistive, AC-coil, 55°C	100x10 <sup>3</sup>
RM3	A (NO)/B (NC)	10A, 277VAC, gen. purp., DC-coil, 70°C	30x10 <sup>3</sup>
RM3	A (NO)/B (NC)	10A, 277VAC, gen. purp., AC-coil, 55°C	30x10 <sup>3</sup>
RM7	A (NO)	16A, 415VAC, resistive, 50°C	100x10 <sup>3</sup>
RM7	A (NO)/B (NC)	16A, 277VAC, general purpose, 50°C	30x10 <sup>3</sup>
RM72	A (NO)	250VAC/1.5HP (3ph.) DC-coil, 70°C	10x10 <sup>3</sup>
RM72	A (NO)	28VDC/16A general purpose, 40°C	6x10 <sup>3</sup>
<b>IEC 60947-5-1</b>			
RM72	A (NO)	16A, AC-15 400VAC/5A, same pol., 25°C	6.050



**Power Relay RM 2/3/7 (Continued)**
**Coil Data (continued)**
**Coil versions, AC coil**

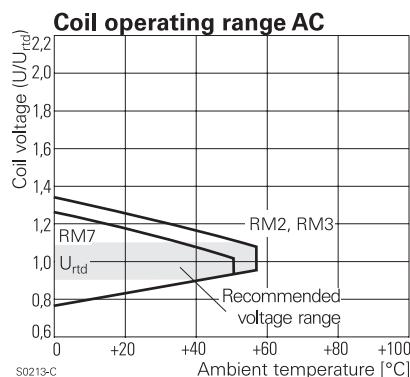
Coil code	Rated voltage	Operate voltage 50/60Hz	Release voltage 50/60Hz	Coil resistance $\Omega \pm 10\%^{1)}2)$	Rated coil power 50/60Hz
STD	LED	VAC	VAC	$\Omega \pm 10\%^{1)}2)$	VA
512	R12	12	9.6/10.2	3.6	2.19/1.86
524	R24	24	19.2/20.4	7.2	2.26/1.95
548	R48	48	38.4/40.8	14.4	2.28/1.97
560	R60	60	48.0/51.0	18.0	2.27/1.96
615	S15	115	92.0/97.8	34.5	2.37/2.00
730	T30	230	184.0/195.5	69.0	8300 <sup>1)</sup>
900	V00	400	320.0/340.0	120.0	27500 <sup>2)</sup>

**Coil versions, AC-coil, RM2, RM3**

512	R12	12	9.6/10.2	3.6	19.5	2.71/2.27
524	R24	24	19.2/20.4	7.2	80	2.62/2.00
548	R48	48	38.4/40.8	14.4	320	2.60/2.17
560	R60	60	48.0/51.0	18.0	500	2.62/2.20
615	S15	115	92.0/97.8	34.5	1850	2.65/2.22
730	T30	230	184.0/195.5	69.0	7500	2.69/2.26
900	V00	400	320.0/340.0	120.0	23500 <sup>2)</sup>	2.61/2.20

<sup>1)</sup> 1 Coil resistance  $\pm 12\%$ , <sup>2)</sup> 2 Coil resistance  $\pm 15\%$ 

All figures are given for coil without pre-energization, at ambient temperature +23°C

**Insulation Data**
**RM2**
**RM3**
**RM7**

**Initial dielectric strength**

between open contacts	1500Vrms	1500Vrms	1500Vrms
between contact and coil	2500Vrms	2500Vrms	2500Vrms
between adjacent contacts	2500Vrms	2500Vrms	2500Vrms

**Initial surge withstand voltage**

between contact and coil	5000V	4000V	4000V
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**Clearance/creepage**

between contact and coil	$\geq 4.0/14.9\text{mm}$
between adjacent contacts	$\geq 6.1/7.3\text{mm}$

**Material group of insulation parts**

IIIa

**Other Data**

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customersupport/rohssupportcenter](http://www.te.com/customersupport/rohssupportcenter)

Ambient temperature for mounting/handling in operation -20 to 40°C

DC coil -40 to 70°C AC coil -40 to 60°C

Cold storage, IEC 60068-2-1

Dry heat, IEC 60068-2-2

Damp heat cyclic, IEC 60068-2-30, Db, Variant 112/12h +25/+55°C

Category of environmental protection IEC 61810

RTI - dust protected

Vibration resistance (functional) form A (NO)/form B (NC) 5/2g 5/2g 12/4g

Terminal type PCB-THT, plug-in, quick-connect

Cover retention, pull/push force 100/100N

Weight 81g

Resistance to soldering heat THT

IEC 60068-2-20 270°C/10s

Packaging unit 10/25 pcs.

**Accessories**

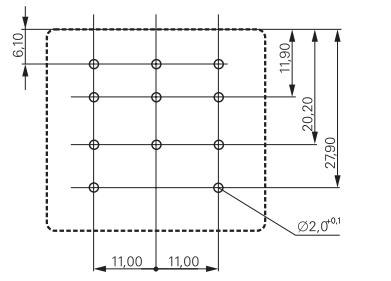
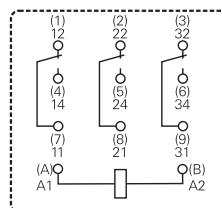
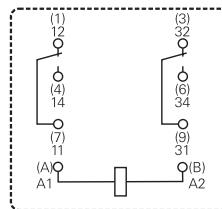
For details see datasheet

**Accessories Power Relay RM**

Note: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

**PCB layout / terminal assignment**

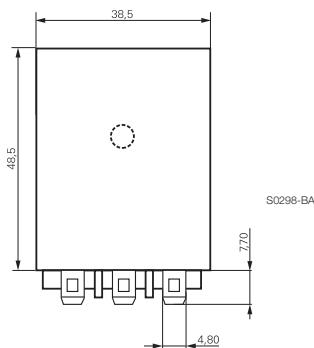
Bottom view on pins


**3 form C (CO) contacts**

**2 form C (CO) contacts**


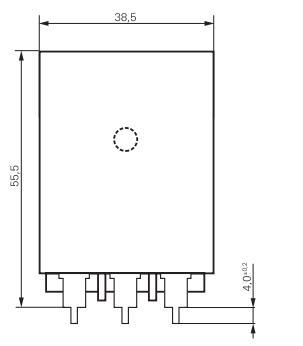
## Power Relay RM 2/3/7 (Continued)

## Dimensions

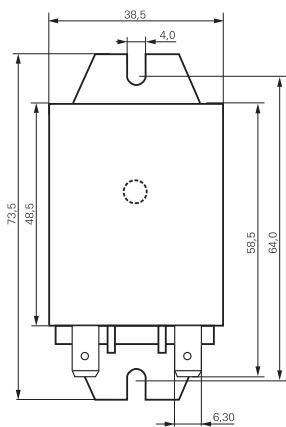
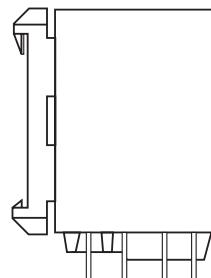
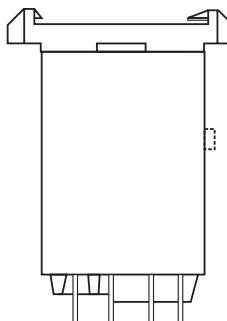
Plain cover, plug-in version



PCB version



Cover with mounting brackets, 6.3mm quick connect (4.8mm available)


 Cover with DIN-snap-on attachment (6.3mm quick connect only)  
 horizontal vertical


## Product code structure

Typical product code	RM	7	2	2	730
<b>Type</b>	<b>RM</b>				
RM Power Relay RM 2/3/7					
<b>Contact arrangement</b>					
2 2 form C contacts (2 CO contacts), 16A	7	3 form C contacts (3 CO contacts), 16A			
3 3 form C contacts (3 CO contacts), 10A					
<b>Version</b>					
0 Discontinued: AgCdO, without test button <sup>1)</sup>	3	Discontinued: AgCdO, with test button <sup>1)</sup>			
2 AgNi 90/10, without test button	7	AgNi 90/10, with test button			
<b>Enclosure</b>					
2 Plain cover, 4.8mm quick connect terminals					
3 Cover with mounting brackets, 4.8mm quick connect terminals					
5 Cover with mounting brackets, 6.3mm quick connect terminals					
7 PCB version					
8 Cover with DIN-snap-on attachment, horizontal, 6.3mm quick connect terminals					
9 Cover with DIN-snap-on attachment, vertical, 6.3mm quick connect terminals					
<b>Coil</b>					
Coil code: please refer to coil versions table					

1) AgCdO contacts are discontinued and replaced with AgNi contacts (see PCN E-18-003016)

## Power Relay RM 2/3/7 (Continued)

Product code	Contacts	Cont. material	Version	Enclosure	Coil	Coil	Part number
RM222012	2 form C	AgNi	Without	Plain cover	DC-coil	12VDC	1-1415546-7
RM222024	2 CO contacts	AgNi	test button	4.8 mm terminal	DC-coil	24VDC	1-1415546-8
RM225012	16A	AgNi		Mounting brackets	DC-coil	12VDC	1415542-7
RM225024		AgNi		quick c. 6.3 mm	DC-coil	24VDC	1415542-8
RM225524		AgNi			AC-coil	24VAC	1-1415546-9
RM225615		AgNi			AC-coil	115VAC	2-1415546-0
RM225730		AgNi			AC-coil	230VAC	1415542-9
RM227024		AgNi		PCB version	DC-coil	24VDC	2-1415546-1
RM227730		AgNi			AC-coil	230VAC	2-1415546-2
RM322024	3 form C	AgNi		Plain cover	DC-coil	24VDC	2-1415546-3
RM327024	3 CO contacts	AgNi		4.8 mm terminal	DC-coil	24VDC	5-1415538-3
	10A	AgNi					
RM722012	3 form C	AgNi		Plain cover	DC-coil	12VDC	3-1415546-1
RM722024	3 CO contacts	AgNi		4.8 mm terminal	DC-coil	24VDC	3-1415546-2
RM7220C4	16A	AgNi			DC-coil (PD)	24VDC	4-1415547-1
RM723024		AgNi		Mounting brackets	DC-coil	24VDC	3-1415546-3
		AgNi		quick c. 4.8 mm			
RM725024		AgNi		Mounting brackets	DC-coil	24VDC	3-1415546-4
RM725615		AgNi		quick c. 6.3 mm	AC-coil	115VAC	3-1415546-5
RM725730		AgNi			AC-coil	230VAC	3-1415546-6
RM727024		AgNi		PCB version	DC-coil	24VDC	3-1415546-7
RM727730		AgNi			AC-coil	230VAC	3-1415546-8
RM772012		AgNi	With	Plain cover	DC-coil	12VDC	3-1415546-9
RM772024		AgNi	test button	4.8 mm terminal	DC-coil	24VDC	5-1415544-7
RM772060		AgNi			DC-coil	60VDC	2-1415545-1
RM772524		AgNi			AC-coil	24VAC	1-1415547-8
RM772730		AgNi			AC-coil	230VAC	4-1415546-0
RM772900		AgNi			AC-coil	400VAC	4-1415546-1
RM775730		AgNi		Mounting brackets	AC-coil	230VAC	1-1415547-9
				quick c. 6.3 mm			
RM778024		AgNi		DIN-snap-on	DC-coil	24VDC	4-1415546-2
RM778730		AgNi		horizontal	AC-coil	230VAC	2-1415547-0
RM779730		AgNi		DIN-snap-on	AC-coil	230VAC	4-1415546-3
				vertical			

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