

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

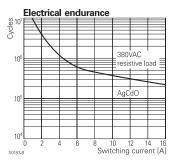


Approvals
VDE Cert. No. 40003144, UL E214025
Technical data of approved types on request

Contact Data	RM2	RM3	RM7
Contact arrangement	2 form C	3 form C	3 form C
	2 CO	3 CO	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	ACdO,	AgCdO,	AgCdO
	AgNi90/10	in prepa	aration
Min. recommended contact load		24VDC/100m/	Д
Frequency of operation, with/withou	ıt load	960/6000h ⁻¹	
Operate/release time max., DC coil		15/10ms	
Bounce time max., DC coil, form A/	form B	4/10ms	

Contac	t ratings		
Туре	Contact	Load	Cycles
IEC 618	810		
RM20	C (CO)	16A, 400VAC, cosφ=1, 35°C	100x10 ³
RM22	C (CO)	16A, 400VAC, cosφ=1, DC-coil, 70°C	100x10 ³
RM22	C (CO)	16A, 400VAC, cosφ=1, AC-coil, 60°C	50x10 ³
RM30	C (CO)	10A, 400VAC, cosφ=1, 35°C	100x10 ³
RM70	C (CO)	16A, 400VAC, cosφ=1, 35°C	100x10 ³
UL 508	1	·	
RM2	A (NO)	16A, 277VAC, general purpose, 70°C	30x10 ³
RM2	A (NO)	16A, 415VAC, resistive, 70°C	100x10 ³
RM20	A (NO)	10A, 48VDC, 50°C	30x10 ³
RM3	C (CO)	10A, 415VAC, resistive, DC-coil, 70°C	100x10 ³
RM3	C (CO)	10A, 415VAC, resistive, AC-coil, 55°C	100x10 ³
RM30	A (NO)/B (NC)	10A, 277VAC, gen. purp., DC-coil, 70°C	30x10 ³
RM30	A (NO)/B (NC)	10A, 277VAC, gen. purp., AC-coil, 55°C	30x10 ³
RM7	A (NO)	16A, 415VAC, resistive, 50°C	100x10 ³
RM7	A (NO)/B (NC)	16A, 277VAC, general purpose, 50°C	30x10 ³

	OC load break	ing capacity
300 200		resistive load
		Contacts in series
100 2 conta	cts in series	
S 50 40	1 contact	
OC voltage [VDC]		
og diag		10 A 16 A
2 10 C		
0,1 0,2 sorer-c	0,5 1 2	5 10 20 DC current [A]



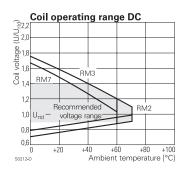
Contact Data (continued)	RM2	RM3	RM7
Mechanical endurance			
DC coil	20	0x10 ⁶ operatio	ons
AC coil	20	0x10 ⁶ operatio	ons

Coil Data		
Coil voltage range	6 to 220VDC	
-	6 to 400VAC	
Operative range, IEC 61810	2	
Coil insulation system according UI	class 130 (B)	

Coil versions, DC coil

	•	Coil code	€	Rated	Coil	Rated coil
STD	LED	$PD^{3)}$	LED+	voltage	resistance	power
	bipolar		PD ³⁾	VDC	$\Omega \pm 10\%^{1)2)}$	W
Coil v	ersions, l	DC coil,	RM2, RM3			
006	L06	0A6	LA6	6	32	1.1
012	L12	0B2	LB2	12	110	1.3
024	L24	0C4	LC4	24	475	1.2
048	L48	0E8	LE8	48	2000	1.2
060	L60	0G0	LG0	60	2850	1.3
110	M10	1B0	MB0	110	100001)	1.2
221	N21	2C1	NC1	220	400002)	1.2
Coil versions, DC coil, RM7						
006	L06	0A6	LA6	6	24	1.5
012	L12	0B2	LB2	12	86	1.7
024	L24	0C4	LC4	24	345	1.7
048	L48	0E8	LE8	48	1340	1.7
060	L60	0G0	LG0	60	2200	1.6
110	M10	1B0	MB0	110	7300	1.7
221	N21	2C1	NC1	220	300002)	1.6
Operat	te voltage	, DC coil		75% of	rated coil volta	age
Releas	e voltage,	DC coil		10% of	rated coil volta	age
1) Coil r	esistance ±	12%, 2) Co	oil resistance ±1	5%		

- 3) Protection diode PD; standard polarity: +A1 / -A2
- All figures are given for coil without pre-energization, at ambient temperature +23°C

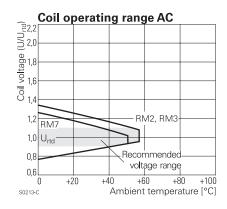




Coil [Coil Data (continued)						
Coil v	arcione	, AC coil					
Coil c		Rated	Operate	Release	Coil	Rated coil	
STD	LED	voltage	voltage	voltage	resistance	power	
			50/60Hz	50/60Hz		50/60Hz	
		VAC	VAC	VAC	$\Omega \pm 10\%^{1)2)}$	VA	
Coil ve	ersions	, AC-coil, R	M2, RM3				
506	R06	6	4.8/5.1	1.8	5.3	2.29/1.98	
512	R12	12	9.6/10.2	3.6	24	2.19/1.86	
524	R24	24	19.2/20.4	7.2	86	2.26/ 1.95	
548	R48	48	38.4/40.8	14.4	345	2.28/1.97	
560	R60	60	48.0/51.0	18.0	544	2.27/1.96	
615	S15	115	92.0/97.8	34.5	2000	2.37/2.00	
730	T30	230	184.0/195.5	69.0	83001)	2.32/ 1.96	
900	V00	400	320.0/340.0	120.0	27500 ²⁾	2.31/1.96	
Coil ve	ersions	, AC-coil, R	M7				
506	R06	6	4.8/5.1	1.8	4.7	2.86/2.36	
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 ²⁾	2.61/2.20	

 $^{^{1)}}$ Coil resistance ±12%, $^{2)}$ Coil resistance ±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	
Clearance/creepage				
between contact and coil		≥4.0/14.9mm		
between adjacent contacts	≥6.1/7.3mm			
Material group of insulation parts		Illa		

Other Data		RM2	RM3	RM7
Material compliance: EU	RoHS/ELV,	China RoHS,	REACH, H	alogen content
	refer to the I	Product Com	pliance Sup	oport Center at
	www.te.co	m/customers	upport/roh:	ssupportcenter
Ambient temperature				

Ambient temperature					
for mounting/handling		-20 to 40°C			
in operation					
DC coil	-40 to 70°C	-40 to 70°C	-40 to 60°C		
AC coil	-40 to 60°C	-40 to 55°C	-40 to 50°C		
Cold storage, IEC 60068-2-1		16h/-40°C			
Dry heat, IEC 60068-2-2		16h/+85°C			
Damp heat cyclic, IEC 60068-2-3	3-2-30, Db, Variant 112/12h +25/+55°C				
Category of environmental protect	tion				
IEC 61810	RT	l - dust protec	ted		
Vibration resistance (functional)		·			
form A (NO)/form B (NC)	5/2g	5/2g	12/4g		
Terminal type	P	CB-THT, plug-	in,		
		quick-connec	t		
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.			

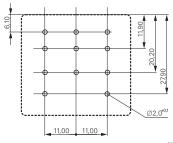
Accessories

For details see datasheet Accessories Power Relay RM

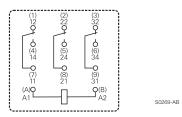
Note: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1); for relays mounted on sockets deratings may apply.

PCB layout / terminal assignment

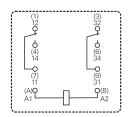
Bottom view on pins



3 form C (CO) contacts



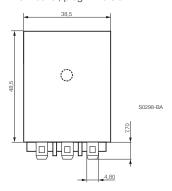
2 form C (CO) contacts

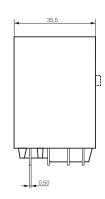




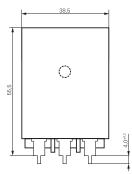
Dimensions

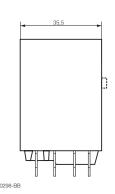
Plain cover, plug-in version



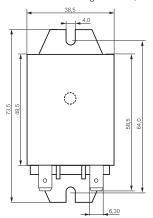


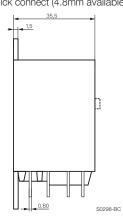
PCB version



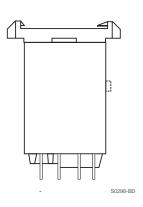


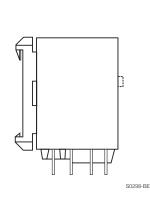
Cover with mounting brackets, 6.3mm quick connect (4.8mm available)





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





Product code structure

Typical product code

7

RM

2

730

RM Power Relay RM 2/3/7

Contact arrangement

2 form C contacts (2 CO contacts), 16A

- 3 form C contacts (3 CO contacts), 16A
- 3 form C contacts (3 CO contacts), 10A

Version

Туре

0 AgCdO, without test button AgNi 90/10, without test button

- AgCdO, with test button AgNi 90/10, with test button

Enclosure

- 2 Plain cover, 4.8mm quick connect terminals
- 3 Cover with mounting brackets, 4.8mm quick connect terminals
- Cover with mounting brackets, 6.3mm quick connect terminals 5
- PCB version
- Cover with DIN-snap-on attachment, horizontal, 6.3mm quick connect terminals
- Cover with DIN-snap-on attachment, vertical, 6.3mm quick connect terminals

Coil

Coil code: please refer to coil versions table



Product code	Contacts	Version	Enclosure	Coil	Coil	Part number
RM202024	2 form C	Without	Plain cover	DC coil	24VDC	8-1393149-2
RM202524	2 CO contacts	test button	quick c. 4.8mm	AC coil	24VAC	1-1393146-9
RM202615	16 A				115VAC	2-1393146-0
RM202730				DO "	230VAC	1-1393148-4
RM203024			Mounting brackets	DC coil	24VDC	1-1393148-6
RM203524			quick c. 4.8mm	AC coil	24VAC	2-1393146-5
RM203615					115VAC	2-1393146-6
RM203730			100	DO "	230VAC	2-1393146-8
RM205024			Mounting brackets	DC coil	24VDC	2-1393146-9
RM205524			quick c. 6.3mm	AC coil	24VAC	3-1393146-0
RM205615					115VAC	3-1393146-1
RM205730					230VAC	3-1393146-2
RM207024			PCB version	DC coil	24VDC	3-1393146-3
RM207615				AC coil	115VAC	8-1393149-5
RM207730					230VAC	3-1393146-4
RM208024			DIN-snap-on	DC coil	24VDC	3-1393146-5
RM208730			horizontal	AC coil	230VAC	8-1393149-6
RM209730			DIN vertical		230VAC	3-1393146-6
RM232024		With	Plain cover	DC coil	24VDC	3-1393146-8
RM232524		test button	quick c. 4.8mm	AC coil	24VAC	3-1393146-9
RM232615					115VAC	4-1393146-0
RM232730					230VAC	3-1393107-4
RM233024			Mounting brackets	DC coil	24VDC	3-1393107-5
RM233615			quick c. 4.8mm	AC coil	115VAC	4-1393146-2
RM235024			Mounting brackets	DC coil	24VDC	8-1393149-8
RM235730			quick c. 6.3mm	AC coil	230VAC	4-1393146-5
RM239730			DIN vertical		230VAC	4-1393148-7
RM302024	3 form C	Without	Plain cover	DC coil	24VDC	8-1393149-9
RM302524	3 CO contacts	test button	guick c. 4.8mm	AC coil	24VAC	5-1393146-3
RM302615	10 A				115VAC	5-1393146-4
RM302730					230VAC	5-1419150-3
RM303024			Mounting brackets	DC coil	24VDC	6-1393148-4
RM303615			quick c. 4.8mm	AC coil	115VAC	5-1393146-5
RM303730			1		230VAC	5-1393146-7
RM307024			PCB version	DC coil	24VDC	7-1393148-2
RM307730				AC coil	230VAC	5-1393146-9
RM332024		With	Plain cover	DC coil	24VDC	9-1393149-2
RM332524		test button	guick c. 4.8mm	AC coil	24VAC	9-1393149-3
RM332730		toot battori	quior o. 4.0mm	710 0011	230VAC	9-1393149-4
RM333024			Mount. br. QC4.8	DC coil	24VDC	9-1393149-6
RM335730			Mount. br. QC6.3	AC coil	230VAC	6-1393107-1
RM338730			DIN horizontal	AO COII	230VAC	7-1393148-7
RM339730			DIN vertical		230VAC	6-1393107-2
RM702024	3 form C	Without	Plain cover	DC coil	24VDC	8-1393146-5
RM702524	3 CO contacts	test button	quick c. 4.8mm	AC coil	24VAC	1393844-9
RM702615	16 A	test button	quick c. 4.0mm	AO COII	115VAC	1-1393844-0
RM702730	10 A				230VAC	1-1393844-1
RM703024			Mounting brackets	DC coil	24VDC	1-1393844-2
RM703524			quick c. 4.8mm	AC coil	24VAC	9-1393146-1
RM703615			quick c. 4.8mm	AC COII	115VAC	9-1393146-2
					0.001.11.0	
RM703730			Mounting brackets	DC coil	230VAC	9-1393146-4
RM705024 RM705524			guick c. 6.3mm	AC coil	24VDC 24VAC	9-1393146-6 9-1393146-7
			quick C. O.3ITIITI	AU COII	115VAC	
RM705615 RM705730					230VAC	1-1393844-4 1-1393844-5
RM707024			PCB version	DO!!	24VDC	
			PGB version	DC coil		9-1393146-8
RM707524				AC coil	24VAC	1393147-1
RM707730			DINI bowie z z t z l	DO 6-11	230VAC	1393147-2
RM708024			DIN horizontal	DC coil	24VDC	1393147-4
RM708730			quick c. 6.3mm	AC coil	230VAC	1-1419136-0
RM709024			DIN vertical	DC coil	24VDC	2-1393149-2
RM709730		1 8 21.1	DI.	AC coil	230VAC	1393147-5
RM732024		With	Plain cover	DC coil	24VDC	1-1393844-7
RM732524		test button	quick c. 4.8mm	AC coil	24VAC	1-1393147-0
RM732615					115VAC	1-1393147-1
RM732730					230VAC	1-1393844-8
RM733730			Mount.br. QC 4.8		230VAC	1-1393147-5
RM735024			Mounting brackets	DC coil	24VDC	3-1393149-6
RM735524			quick c. 6.3mm	AC coil	24VAC	3-1393149-7
RM735730					230VAC	4-1393149-1
RM737730			PCB version		230VAC	2-1393147-0
RM738024			DIN-snap-on	DC coil	24VDC	2-1393844-0
			horizontal	AC coil	230VAC	2-1393147-2
RM738730						
RM738730 RM739024			DIN-snap-on	DC coil	24VDC	4-1393149-5



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
RM723024	16A	AgNi		Mounting brackets	DC-coil	24VDC	3-1415546-3
				quick c. 6.3 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
RM772730		AgNi			AC-coil	230VAC	4-1415546-0
RM772900		AgNi			AC-coil	400VAC	4-1415546-1
RM778024		AgNi		DIN-snap-on	DC-coil	24VDC	4-1415546-2
		7.5		horizontal	20 00.1		
RM779730		AgNi		DIN-snap-on	AC-coil	230VAC	4-1415546-3
1 11 11 1 0 1 0 0		7.911		vertical	710 0011	2001/10	