

- 2 / 3 pole 10 / 16 A, 2 CO or 3 CO contacts
- Switching capacity up to 6000 VA
- DC- or AC-coil
- Mechanical indicator
- Push-to-test-button
- Plug-in version, PCB terminals, chassis- or DIN-rail mount
- Versions with AgNi90/10 contact material: RoHS compliant (Directive 2002/95/EC)



F0163-A

Applications

Elevator control, power supplies

Approvals

VDE REG.-Nr. 40003144, c RU us E214025
 Technical data of approved types on request

Contact data	RM2	RM3	RM7
Contact configuration	2 CO	3 CO	3 CO
Contact set	single contact		
Type of interruption	micro disconnection		
Rated current	16 A	10 A	16 A
Rated voltage / max.switching voltage AC	400/440 VAC		
Maximum breaking capacity AC	6000 VA	3800 VA	6000 VA
Limiting making capacity, max 20 ms	40 A	40 A	40 A
Contact material	AgNi90/10, AgCdO		
Mechanical endurance	20x10 ⁶ cycles		
Rated frequency of operation with / without load	16/100 min ⁻¹		

Contact ratings

Type	Load	Cycles
RM2.	16 A, 415 VAC, UL	100x10 ³
RM20	16 A, 400 VAC, cosφ=1, 35°C, VDE	100x10 ³
RM2.	16 A, 250 VAC, general purpose, UL	30x10 ³
RM20	10 A, 48 VDC, UL	30x10 ³
RM30	10 A, 400 VAC, cosφ=1, 35°C, VDE	100x10 ³
RM3.	10 A, 300 VAC, resistive, UL	100x10 ³
RM3.	10 A, 250 VAC, general purpose, UL	30x10 ³
RM7.	5 A, 400 VAC, resistive, UL	100x10 ³
RM70	16 A, 400 VAC, cosφ=1, 35°C, VDE	100x10 ³
RM7.	10 A, 300 VAC, resistive, UL	100x10 ³

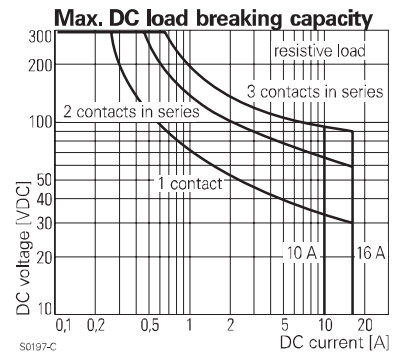
Coil data	RM2	RM3	RM7
Rated coil voltage range DC coil		6...220 VDC	
AC coil		6...400 VAC	
Coil power DC coil	1.2 W	1.2 W	1.6 W
AC coil	2.3 VA	2.3 VA	2.8 VA
Operative range	1		

Coil versions, DC-coil

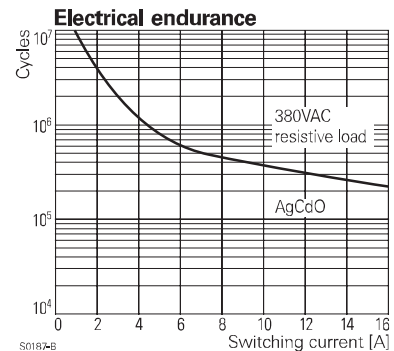
Coil code	STD	LED	PD*	LED+	PD*	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power W
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Coil versions, DC-coil, RM2, RM3

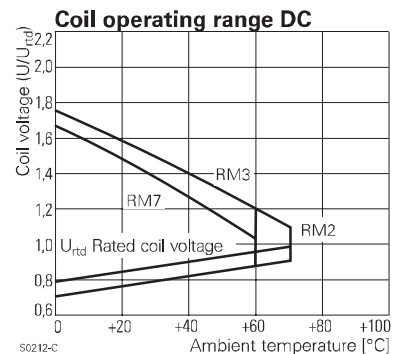
006	L06	0A6	LA6	6	4.5	0.6	32±10%	1.1
012	L12	0B2	LB2	12	9.0	1.2	110±10%	1.3
024	L24	0C4	LC4	24	18.0	2.4	475±10%	1.2
048	L48	0E8	LE8	48	36.0	4.8	2000±10%	1.2
060	L60	0G0	LG0	60	45.0	6.0	2850±10%	1.3
110	M10	1B0	MB0	110	82.5	11.0	10000±12%	1.2
221	N21	2C1	NC1	220	165.0	22.0	40000±15%	1.2



S0197-C



S0187-B



S0212-C

Coil versions, DC-coil, RM7

Coil code	STD	LED bipolar	LED+ PD*	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power W
006	L06	0A6	LA6	6	4.5	0.6	24±10%	1.5
012	L12	0B2	LB2	12	9.0	1.2	86±10%	1.7
024	L24	0C4	LC4	24	18.0	2.4	345±10%	1.7
048	L48	0E8	LE8	48	36.0	4.8	1340±10%	1.7
060	L60	0G0	LG0	60	45.0	6.0	2200±10%	1.6
110	M10	1B0	MB0	110	82.5	11.0	7300±10%	1.7
221	N21	2C1	NC1	220	165.0	22.0	30000±15%	1.6

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

Coil versions, AC-coil 50/60 Hz

Coil code	STD	LED	Rated voltage VAC	Operate voltage 50/60Hz VAC	Release voltage 50/60Hz VAC	Coil resistance Ohm	Rated coil power 50/60Hz VA
506	R06		6	4.8	2.4	5.3±10%	2.29/1.98
512	R12		12	9.6	4.8	24±10%	2.19/1.86
524	R24	24	19.2	9.6	9.6	86±10%	2.26/1.95
548	R48		48	38.4	19.2	345±10%	2.28/1.97
560	R60		60	48.0	24.0	544±10%	2.27/1.96
615	S15		115	92.0	46.0	2000±10%	2.37/2.00
730	T30	230	184.0	92.0	92.0	8300±12%	2.32/1.96
900	V00		400	320.0	160.0	27500±15%	2.31/1.96

Coil versions, AC-coil, RM2, RM3

506	R06	6	4.8	2.4	4.7±10%	2.86/2.36
512	R12	12	9.6	4.8	19.5±10%	2.71/2.27
524	R24	24	19.2	9.6	80±10%	2.62/2.00
548	R48	48	38.4	19.2	320±10%	2.60/2.17
560	R60	60	48.0	24.0	500±10%	2.62/2.20
615	S15	115	92.0	46.0	1850±10%	2.65/2.22
730	T30	230	184.0	92.0	7500±10%	2.69/2.26
900	V00	400	320.0	160.0	23500±15%	2.61/2.20

Coil versions, AC-coil, RM7

506	R06	6	4.8	2.4	4.7±10%	2.86/2.36
512	R12	12	9.6	4.8	19.5±10%	2.71/2.27
524	R24	24	19.2	9.6	80±10%	2.62/2.00
548	R48	48	38.4	19.2	320±10%	2.60/2.17
560	R60	60	48.0	24.0	500±10%	2.62/2.20
615	S15	115	92.0	46.0	1850±10%	2.65/2.22
730	T30	230	184.0	92.0	7500±10%	2.69/2.26
900	V00	400	320.0	160.0	23500±15%	2.61/2.20

All figures are given for coil without preenergization, at ambient temperature +23°C

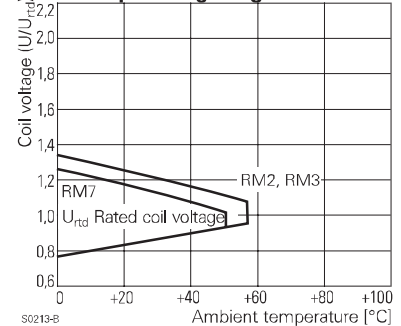
Insulation

Dielectric strength coil-contact circuit	2500 V _{rms}
open contact circuit	1500 V _{rms}
adjacent contact circuits	2500 V _{rms}
Clearance / creepage coil-contact circuit	≥ 4.0/14.9 mm
adjacent contact circuits	≥ 6.1/7.3 mm
Material group of insulation parts	≥ IIIa
Insulation to IEC 60664-1	
Type of insulation coil-contact circuit	basic
open contact circuit	functional
adjacent contact circuits	basic
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	240/400 V
Overtoltage category	III

Other data

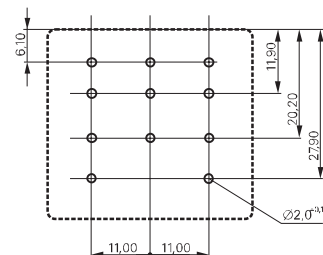
	RM2	RM3	RM7
RoHS - Directive 2002/95/EC			
Versions with AgNi90/10 contacts:		compliant	
Ambient temperature range DC coil	-45...+70°C	-45...+60°C	-45...+60°C
AC coil	-45...+55°C	-45...+55°C	-45...+50°C
Operate- / release time		15/10 ms	
Bounce time NO / NC contact		3 ms	
Vibration resistance (function) NO / NC contact	5/2 g	5/2 g	12/4 g
Category of protection		RTI - dust protected	
Resistance to soldering heat		270°C / 10 s	
Relay weight		81 g	
Packaging unit		10/25 pcs	

Coil operating range AC



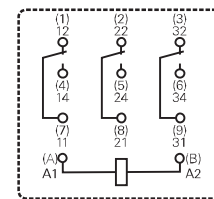
PCB layout / terminal assignment

Bottom view on pins



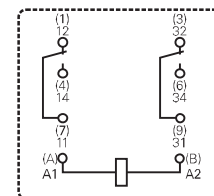
S0269-AA

3 CO contacts



S0269-AB

2 CO contacts



S0269-AD

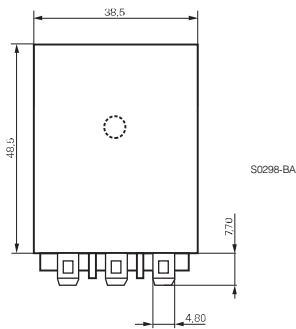
Accessories

For details see datasheet

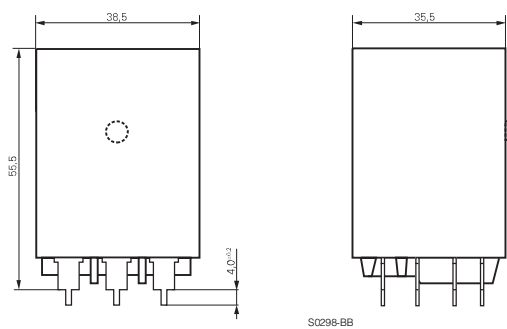
Accessories Power Relay RM

Dimensions

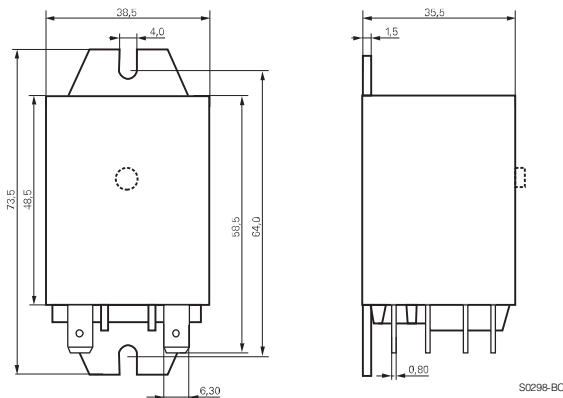
Plain cover, plug-in version



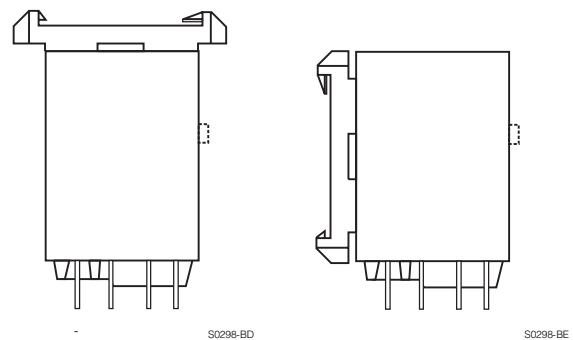
PCB version



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



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



Product key

Type	R	M				
Contact configuration	2 2 CO contacts, 16 A 7 3 CO contacts, 16 A 3 3 CO contacts, 10 A					
Version	0 AgCdO, without test button 3 AgCdO, with test button 2 AgNi 90/10, without test button 7 AgNi 90/10, with test button					
Enclosure	2 plain cover, 4.8 mm quick connect terminals 3 cover with mounting brackets, 4.8 mm quick connect terminals 5 cover with mounting brackets, 6.3 mm quick connect terminals 7 PCB version 8 cover with DIN-snap-on attachment, horizontal, 6.3 mm quick connect terminals 9 cover with DIN-snap-on attachment, vertical, 6.3 mm quick connect terminals					
Coil	Coil code: please refer to coil versions table, preferred types in bold print					

Product key	Contacts	Version	Enclosure	Coil	Coil	Part number		
RM202024	2 CO contacts 16 A	without test button	plain cover quick c. 4.8 mm	DC-coil	24 VDC	8-1393149-2		
RM202524				AC-coil	24 VAC	1-1393146-9		
RM202615					115 VAC	2-1393146-0		
RM202730				230 VAC	1-1393148-4			
RM203024			mounting brackets quick c. 4.8 mm		DC-coil	24 VDC	1-1393148-6	
RM203524					AC-coil	24 VAC	2-1393146-5	
RM203615						115 VAC	2-1393146-6	
RM203730					230 VAC	2-1393146-8		
RM205024			mounting brackets quick c. 6.3 mm		DC-coil	24 VDC	2-1393146-9	
RM205524					AC-coil	24 VAC	3-1393146-0	
RM205615						115 VAC	3-1393146-1	
RM205730					230 VAC	3-1393146-2		
RM207024			PCB version		DC-coil	24 VDC	3-1393146-3	
RM207615					AC-coil	115 VAC	8-1393149-5	
RM207730						230 VAC	3-1393146-4	
RM208024		DIN-snap-on horizontal	DC-coil		24 VDC	3-1393146-5		
RM208730			AC-coil		230 VAC	8-1393149-6		
RM209730					230 VAC	3-1393146-6		
RM232024		with test button	plain cover quick c. 4.8 mm		DC-coil	24 VDC	3-1393146-8	
RM232524				AC-coil	24 VAC	3-1393146-9		
RM232615					115 VAC	4-1393146-0		
RM232730				230 VAC	3-1393107-4			
RM233024			mounting brackets quick c. 4.8 mm	DC-coil	24 VDC	3-1393107-5		
RM233615				AC-coil	115 VAC	4-1393146-2		
RM235024				DC-coil	24 VDC	8-1393149-8		
RM235730			mounting brackets quick c. 6.3 mm	AC-coil	230 VAC	4-1393146-5		
RM239730					230 VAC	4-1393148-7		
RM302024				DIN vertical	230 VAC	8-1393149-9		
RM302524			3 CO contacts 10 A	without test button	plain cover quick c. 4.8 mm	DC-coil	24 VDC	8-1393149-9
RM302615						AC-coil	24 VAC	5-1393146-3
RM302730						115 VAC	5-1393146-4	
RM303024	mounting brackets quick c. 4.8 mm			DC-coil	24 VDC	5-1419150-3		
RM303615				AC-coil	115 VAC	6-1393148-4		
RM303730				230 VAC	5-1393146-7			
RM307024	PCB version	DC-coil		24 VDC	7-1393148-2			
RM307730		AC-coil		230 VAC	5-1393146-9			
RM332024				24 VDC	9-1393149-2			
RM332524	with test button	plain cover quick c. 4.8 mm		AC-coil	24 VAC	9-1393149-3		
RM332730					230 VAC	9-1393149-4		
RM333024				DC-coil	24 VDC	9-1393149-6		
RM335730	mount. br. q.c.4.8 mount. br. q.c.6.3	AC-coil		230 VAC	6-1393107-1			
RM338730		DIN horizontal		230 VAC	7-1393148-7			
RM339730		DIN vertical		230 VAC	6-1393107-2			
RM702024	3 CO contacts 16 A	without test button	plain cover quick c. 4.8 mm	DC-coil	24 VDC	8-1393146-5		
RM702524				AC-coil	24 VAC	0-1393844-9		
RM702615					115 VAC	1-1393844-0		
RM702730				230 VAC	1-1393844-1			
RM703024			mounting brackets quick c. 4.8 mm	DC-coil	24 VDC	1-1393844-2		
RM703524				AC-coil	24 VAC	9-1393146-1		
RM703615					115 VAC	9-1393146-2		
RM703730				230 VAC	9-1393146-4			
RM705024			mounting brackets quick c. 6.3 mm	DC-coil	24 VDC	9-1393146-6		
RM705524				AC-coil	24 VAC	9-1393146-7		
RM705615					115 VAC	1-1393844-4		
RM705730				230 VAC	1-1393844-5			
RM707024			PCB version	DC-coil	24 VDC	9-1393146-8		
RM707524				AC-coil	24 VAC	0-1393147-1		
RM707730					230 VAC	0-1393147-2		
RM708024		DIN horizontal quick c. 6.3 mm	DC-coil	24 VDC	0-1393147-4			
RM708730			AC-coil	230 VAC	1-1419136-0			
RM709024			DIN vertical	24 VDC	2-1393149-2			
RM709730		with test button	plain cover quick c. 4.8 mm	AC-coil	230 VAC	0-1393147-5		
RM732024				DC-coil	24 VDC	1-1393844-7		
RM732524				AC-coil	24 VAC	1-1393147-0		
RM732615				115 VAC	1-1393147-1			
RM732730				230 VAC	1-1393844-8			
RM733730			mount.br. q.c. 4.8 mounting brackets quick c. 6.3 mm		230 VAC	1-1393147-5		
RM735024				DC-coil	24 VDC	3-1393149-6		
RM735524				AC-coil	24 VAC	3-1393149-7		
RM735730				230 VAC	4-1393149-1			
RM737730			PCB version		230 VAC	2-1393147-0		
RM738024				DC-coil	24 VDC	2-1393844-0		
RM738730				AC-coil	230 VAC	2-1393147-2		
RM739024	DIN-snap-on horizontal		DC-coil	24 VDC	4-1393149-5			
RM739730			AC-coil	230 VAC	2-1393844-2			

Datasheet
Issued 2005/08
www.tycoelectronics.com
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Dimensions are in mm unless
otherwise specified and are
shown for reference purposes
only.

Product specification
according to IEC 61810-1.
Product data, technical para-
meters, test conditions and

processing information
only to be used together
with the 'Definitions' at
schrackrelays.com in the

'Schrack' section.
Specifications subject to
change.