

**Power Relay RM 2/3/7**

- 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



F0163-B

**Applications**

Elevator control, power supplies

**Approvals**

VDE REG.-Nr. 40003144, **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 voltage / max. switching voltage AC	400 / 440 VAC		
Rated current	16 A	10 A	16 A
Maximum breaking capacity AC	6000 VA	3800 VA	6000 VA
Limiting making capacity, max 20 ms	40 A	40 A	40 A
Contact material	AgCdO		
Rated frequency of operation with / without load	16/100 min <sup>-1</sup>		
Operate- / release time DC coil	max 15/10 ms		
Bounce time DC coil NO / NC contact	max 4 / 6 ms		

**Contact ratings**

Type	Contact	Load	Ambient temp. [°C]	Cycles
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**IEC 61810**

RM20	CO	16 A, 400 VAC, cosφ=1	35°C	100x10 <sup>3</sup>
RM30	CO	10 A, 400 VAC, cosφ=1	35°C	100x10 <sup>3</sup>
RM70	CO	16 A, 400 VAC, cosφ=1	35°C	100x10 <sup>3</sup>

**UL 508**

RM2	NO	16 A, 277 VAC, general purpose	50°C	30x10 <sup>3</sup>
RM2	NO	16 A, 415 VAC, resistive	50°C	100x10 <sup>3</sup>
RM20	NO	10 A, 48 VDC	50°C	30x10 <sup>3</sup>
RM3	CO	10 A, 415 VAC, resistive	50°C	100x10 <sup>3</sup>
RM30	NO / NC	10 A, 277 VAC, general purpose	50°C	30x10 <sup>3</sup>
RM7	NO	16 A, 415 VAC, resistive	50°C	100x10 <sup>3</sup>
RM7	NO / NC	16 A, 277 VAC, general purpose	50°C	30x10 <sup>3</sup>

**Coil data**

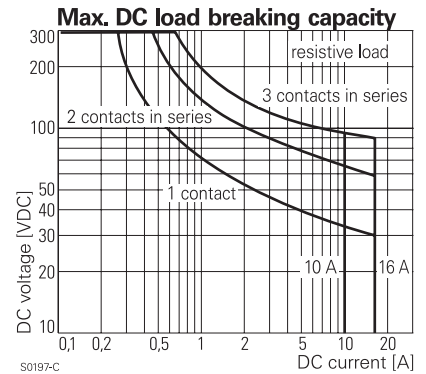
	RM2	RM3	RM7
Rated coil voltage range DC coil		6...220 VDC	
AC coil		6...400 VAC	
Operative range to IEC 61810	2		

**Coil versions, DC-coil**

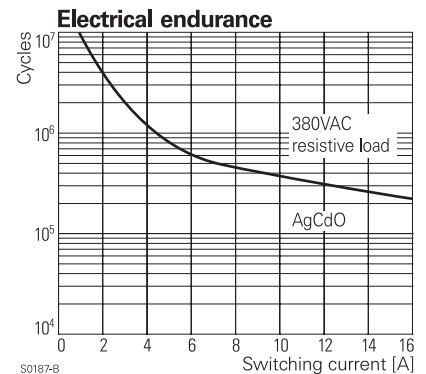
Coil code	STD	LED bipolar	LED+ PD*	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ohm	Rated coil power W
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**Coil versions, DC-coil, RM2, RM3**

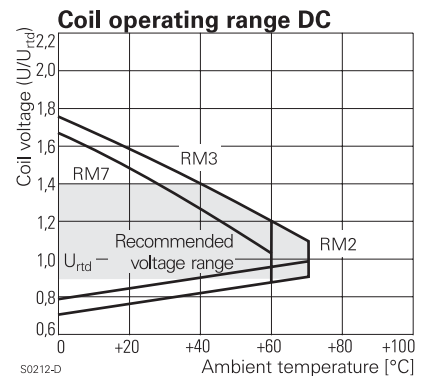
006	L06	0A6	LA6	6	4.5	0.6	32±10%	1.1
012	L12	0B2	LB2	12	9.0	1.2	110±10%	1.3
<b>024</b>	<b>L24</b>	<b>0C4</b>	<b>LC4</b>	<b>24</b>	<b>18.0</b>	<b>2.4</b>	<b>475±10%</b>	<b>1.2</b>
048	L48	0E8	LE8	48	36.0	4.8	2000±10%	1.2
060	L60	0G0	LG0	60	45.0	6.0	2850±10%	1.3
110	M10	1B0	MB0	110	82.5	11.0	10000±12%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



S0197-C



S0187-B



S0212-D

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

**Coil versions, DC-coil, RM7**

Coil code	STD	LED bipolar	PD* 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
<b>024</b>	<b>L24</b>	<b>0C4</b>	<b>LC4</b>	<b>24</b>	<b>18.0</b>	<b>2.4</b>	<b>345±10%</b>	<b>1.7</b>
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 / 60 Hz VAC	Release voltage 50 / 60 Hz VAC	Coil resistance Ohm	Rated coil power 50 / 60 Hz VA
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**Coil versions, AC-coil, RM2, RM3**

506	R06	6	4.8 / 5.1	2.4	5.3±10%	2.29/1.98
512	R12	12	9.6 / 10.2	4.8	24±10%	2.19/1.86
<b>524</b>	<b>R24</b>	<b>24</b>	<b>19.2 / 20.4</b>	<b>9.6</b>	<b>86±10%</b>	<b>2.26/ 1.95</b>
548	R48	48	38.4 / 40.8	19.2	345±10%	2.28/1.97
560	R60	60	48.0 / 51.0	24.0	544±10%	2.27/1.96
615	S15	115	92.0 / 97.8	46.0	2000±10%	2.37/2.00
<b>730</b>	<b>T30</b>	<b>230</b>	<b>184.0 / 195.5</b>	<b>92.0</b>	<b>8300±12%</b>	<b>2.32/ 1.96</b>
900	V00	400	320.0 / 340.0	160.0	27500±15%	2.31/1.96

**Coil versions, AC-coil, RM7**

506	R06	6	4.8 / 5.1	2.4	4.7±10%	2.86/2.36
512	R12	12	9.6 / 10.2	4.8	19.5±10%	2.71/2.27
<b>524</b>	<b>R24</b>	<b>24</b>	<b>19.2 / 20.4</b>	<b>9.6</b>	<b>80±10%</b>	<b>2.62/2.00</b>
548	R48	48	38.4 / 40.8	19.2	320±10%	2.60/2.17
560	R60	60	48.0 / 51.0	24.0	500±10%	2.62/2.20
615	S15	115	92.0 / 97.8	46.0	1850±10%	2.65/2.22
<b>730</b>	<b>T30</b>	<b>230</b>	<b>184.0 / 195.5</b>	<b>92.0</b>	<b>7500±10%</b>	<b>2.69/ 2.26</b>
900	V00	400	320.0 / 340.0	160.0	23500±15%	2.61/2.20

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

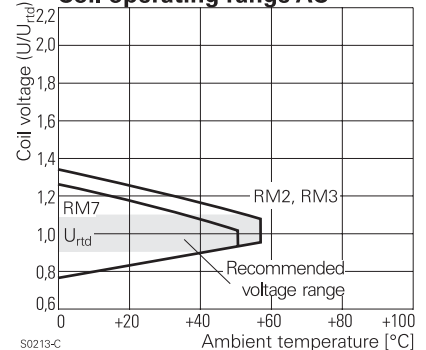
**Insulation**

Dielectric strength coil-contact circuit	2500 V <sub>rms</sub>
open contact circuit	1500 V <sub>rms</sub>
adjacent contact circuits	2500 V <sub>rms</sub>
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 61810-1	
Type of insulation coil-contact circuit	basic
open contact circuit	micro disconnection
adjacent contact circuits	basic
Rated insulation voltage	250 V
Pollution degree	3
Rated voltage system	230 / 400 V
Overtoltage category	III

**Other data**

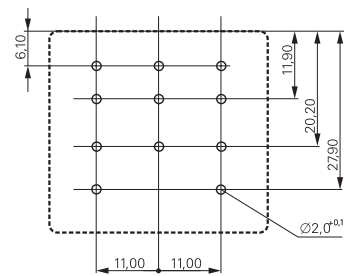
	RM2	RM3	RM7
Mechanical endurance	20x10 <sup>6</sup> cycles		
Material	RoHS - Directive 2002/95/EC compliant as per product date code 0415		
Environment			
Ambient temperature range DC coil	-45...+70°C	-45...+60°C	-45...+60°C
AC coil	-45...+55°C	-45...+55°C	-45...+50°C
Vibration resistance (function) NO/NC	5/2 g	5/2 g	12/4 g
Category of protection	RT1 - dust protected		
Processing			
Resistance to soldering heat	270°C / 10 s		
Relay weight	81 g		
Packaging unit	10/25 pcs		

**Coil operating range AC**



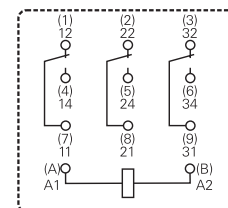
**PCB layout / terminal assignment**

Bottom view on pins



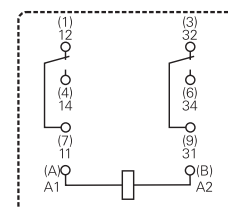
S0269-AA

**3 CO contacts**



S0269-AB

**2 CO contacts**



S0269-AD

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

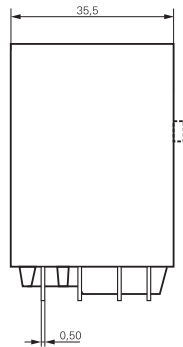
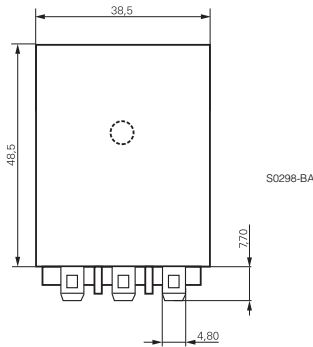
**Accessories**

For details see datasheet Accessories Power Relay RM

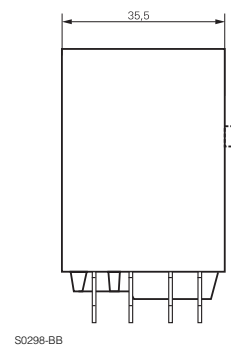
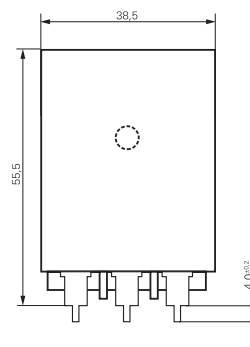
NOTE: indicated contact ratings and electrical endurance data for direct wiring of relays (according IEC 61810-1, table 12); for relays mounted on sockets deratings may apply.

**Dimensions**

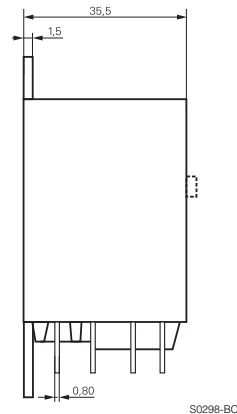
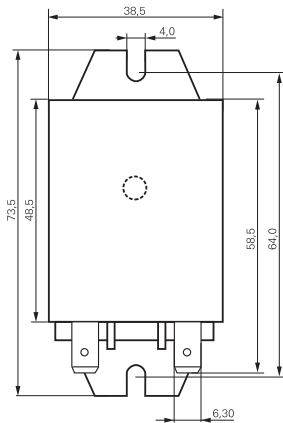
Plain cover, plug-in version



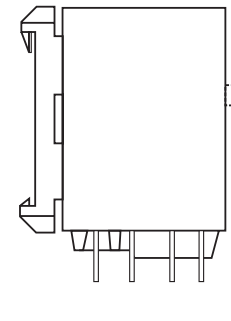
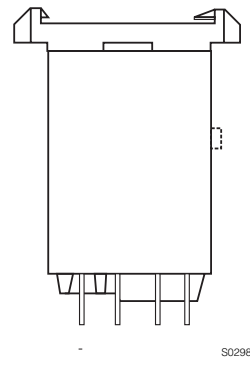
PCB version



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**

Typical product key

**RM 7 0 2 730**

**Type**

**RM** Power relay RM 2/3/7

**Contact configuration**

**2** 2 CO contacts (2 form C), 16 A  
**3** 3 CO contacts (3 form C), 10 A

**7** 3 CO contacts (3 form C), 16 A

**Version**

**0** AgCdO, without test button

**3** AgCdO, 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

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

Product key	Contacts	Version	Enclosure	Coil	Coil	Part number
RM202024	2 CO contacts 16 A	without	plain cover	DC-coil	24 VDC	8-1393149-2
RM202524		test button	quick c. 4.8 mm	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			DIN vertical		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			mounting brackets quick c. 6.3 mm	DC-coil	24 VDC	8-1393149-8
RM235730				AC-coil	230 VAC	4-1393146-5
RM239730			DIN vertical		230 VAC	4-1393148-7
RM302024	3 CO contacts 10 A	without test button	plain cover quick c. 4.8 mm	DC-coil	24 VDC	8-1393149-9
RM302524				AC-coil	24 VAC	5-1393146-3
RM302615					115 VAC	5-1393146-4
RM302730					230 VAC	5-1419150-3
RM303024			mounting brackets quick c. 4.8 mm	DC-coil	24 VDC	6-1393148-4
RM303615				AC-coil	115 VAC	5-1393146-5
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		with test button	plain cover quick c. 4.8 mm	DC-coil	24 VDC	9-1393149-2
RM332524				AC-coil	24 VAC	9-1393149-3
RM332730					230 VAC	9-1393149-4
RM333024			mount. br. q.c.4.8	DC-coil	24 VDC	9-1393149-6
RM335730			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	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	1393147-1
RM707730					230 VAC	1393147-2
RM708024			DIN horizontal	DC-coil	24 VDC	1393147-4
RM708730			quick c. 6.3 mm	AC-coil	230 VAC	1-1419136-0
RM709024			DIN vertical	DC-coil	24 VDC	2-1393149-2
RM709730				AC-coil	230 VAC	1393147-5
RM732024		with test button	plain cover quick c. 4.8 mm	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		230 VAC	1-1393147-5
RM735024			mounting brackets quick c. 6.3 mm	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			DIN-snap-on horizontal	DC-coil	24 VDC	2-1393844-0
RM738730				AC-coil	230 VAC	2-1393147-2
RM739024			DIN-snap-on	DC-coil	24 VDC	4-1393149-5
RM739730			vertical	AC-coil	230 VAC	2-1393844-2