

Power Relay RM 2/3/7

2 / 3 pole 10 / 16 A, DC- or AC-coil



Features

- 2 C/O or 3 C/O 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

Applications

Elevator control, power supplies



Technical data of approved types on request

F0163-A

Contact data	RM 2	RM 3	RM 7
Configuration	2 C/O	3 C/O	3 C/O
Type of contact	single contact		
Rated current	16 A	10 A	16 A
Rated voltage / max. breaking voltage AC	380 Vac / 440 Vac		
Maximum breaking capacity AC	6000 VA	3800 VA	6000 VA
Make current	40 A	40 A	40 A
Contact material	AgCdO		

Contact ratings

Type	Load	Standard
RM2	1hp, 240 Vac, per contact	UL 508
RM7	1.5hp, 240 Vac, 3-phase	UL 508
RM7	15 A, 250 Vac, per contact	UL 508
RM3	1 / 2hp, 240 Vac, per contact	UL 508
RM3	10 A, 240 Vac, per contact	UL 508

Coil data		RM 2	RM 3	RM 7
Nominal voltage	DC coil		6...220 Vdc	
	AC coil		6...400 Vac	
Nominal coil power	DC coil	1.2 W	1.2 W	1.6 W
	AC coil	2.3 VA	2.3 VA	2.8 VA

Coil versions, DC-coil, RM2, RM3

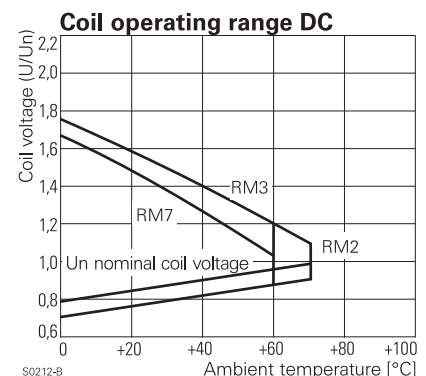
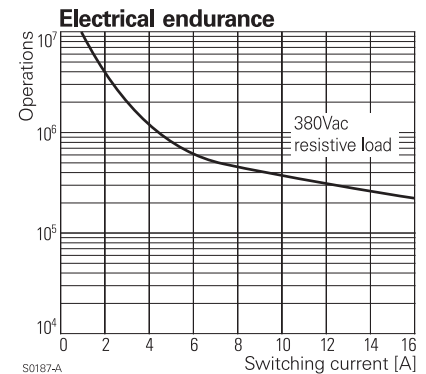
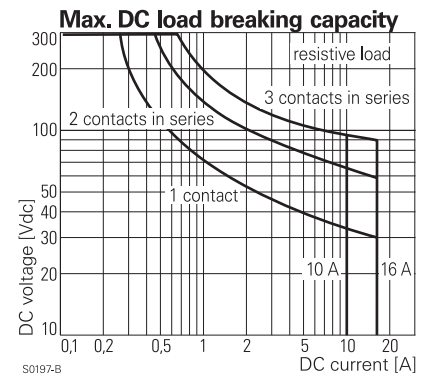
Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Coil resistance Ω	Coil current mA
STD bipolar					
006 L06 OA6 LA6	6	4.5	0.6	32±10%	187.5
012 L12 OB2 LB2	12	9.0	1.2	110±10%	109.1
024 L24 OC4 LC4	24	18.0	2.4	475±10%	50.5
048 L48 OE8 LE8	48	36.0	4.8	2000±10%	24.0
060 L60 OG0 LG0	60	45.0	6.0	2850±10%	21.1
110 M10 1B0 MB0	110	82.5	11.0	10000±12%	11.0
221 N21 2C1 NC1	220	165.0	22.0	40000±15%	5.5

Coil versions, DC-coil, RM7

006 L06 OA6 LA6	6	4.5	0.6	24±10%	250.0
012 L12 OB2 LB2	12	9.0	1.2	86±10%	139.5
024 L24 OC4 LC4	24	18.0	2.4	345±10%	69.6
048 L48 OE8 LE8	48	36.0	4.8	1340±10%	35.8
060 L60 OG0 LG0	60	45.0	6.0	2200±10%	27.3
110 M10 1B0 MB0	110	82.5	11.0	7300±10%	15.1
221 N21 2C1 NC1	220	165.0	22.0	30000±15%	7.3

All figures are given for coil without preenergization, at ambient temperature +20°C

* Protection diode PD; standard polarity: +A1 / -A2



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Coil versions, AC-coil, RM2, RM3

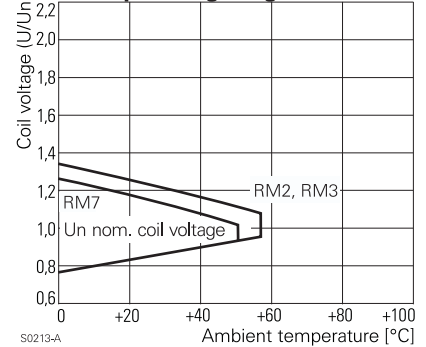
Coil code	LED	Nominal voltage Vac	Pull-in voltage Vac	Release voltage Vac	Coil resistance Ω	Coil current mA
506	R06	6	4.8	2.4	$5.3 \pm 10\%$	381.7
512	R12	12	9.6	4.8	$24 \pm 10\%$	182.5
524	R24	24	19.2	9.6	$86 \pm 10\%$	94.2
548	R48	48	38.4	19.2	$345 \pm 10\%$	47.5
560	R60	60	48.0	24.0	$544 \pm 10\%$	37.8
615	S15	115	92.0	46.0	$2000 \pm 10\%$	20.6
730	T30	230	184.0	92.0	$8300 \pm 12\%$	10.1
900	V00	400	320.0	160.0	$27500 \pm 15\%$	5.8

Coil versions, AC-coil, RM7

506	R06	6	4.8	2.4	$4.7 \pm 10\%$	476.7
512	R12	12	9.6	4.8	$19.5 \pm 10\%$	225.8
524	R24	24	19.2	9.6	$80 \pm 10\%$	109.2
548	R48	48	38.4	19.2	$320 \pm 10\%$	54.2
560	R60	60	48.0	24.0	$500 \pm 10\%$	43.7
615	S15	115	92.0	46.0	$1850 \pm 10\%$	23.0
730	T30	230	184.0	92.0	$7500 \pm 10\%$	11.7
900	V00	400	320.0	160.0	$23500 \pm 15\%$	6.5

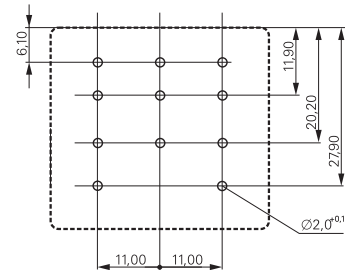
All figures are given for coil without preenergization, at ambient temperature +20°C

Coil operating range AC



PCB layout / terminal assignment

View on solder pins
Dimensions in mm



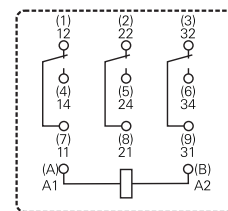
Insulation

Dielectric strength	coil-contacts	2500 V _{rms}
	open contact circuit	1500 V _{rms}
	adjacent contacts	2500 V _{rms}
Clearance / creepage		≥ 3.5 / 6 mm
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 400 with fully isolated Faston connectors

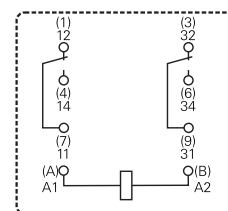
Other data

	RM 2	RM 3	RM 7
Ambient temperature DC-coil	-45...+70 °C	-45...+60 °C	-45...+60 °C
AC-coil	-45...+55 °C	-45...+55 °C	-45...+50 °C
Mechanical life	>20x10 ⁶ operations		
Max. switching rate at rated- / minimum load	16 min ⁻¹ / 100 min ⁻¹		
Operate- / release time	approx. 15 / 10 ms		
Bounce time	approx. 3 ms		
Vibration resistance N/O / N/C contact	>5 / 2 g	>5 / 2 g	>12 / 4 g
Category of protection (IEC 61810)	RT I - dust protected		
Relay weight	81 g		
Packaging unit	10 / 25 pcs.		
Accessories	see accessories RM		

3 C/O contacts



2 C/O contacts



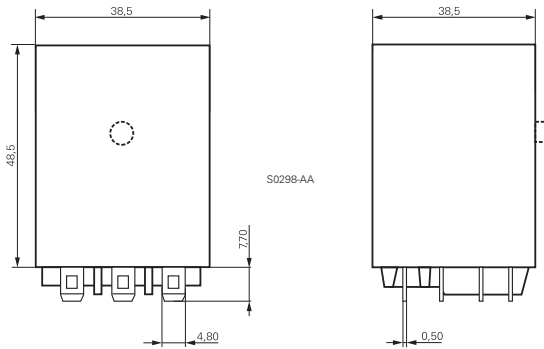
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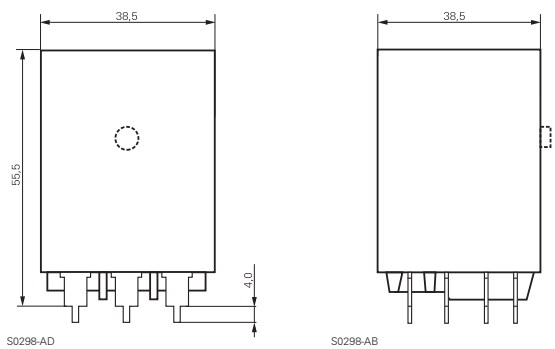
Dimensions

Dimensions in mm

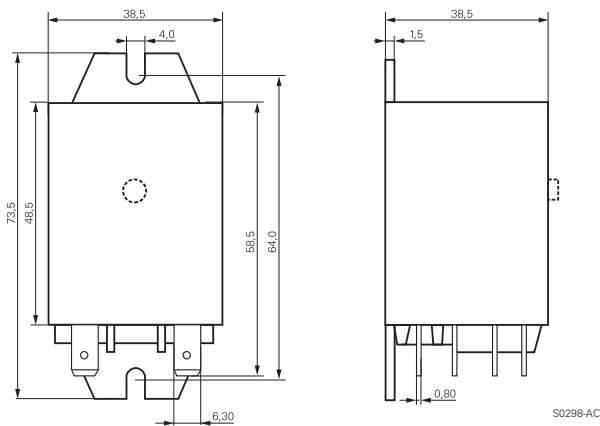
Plain cover, plug-in version



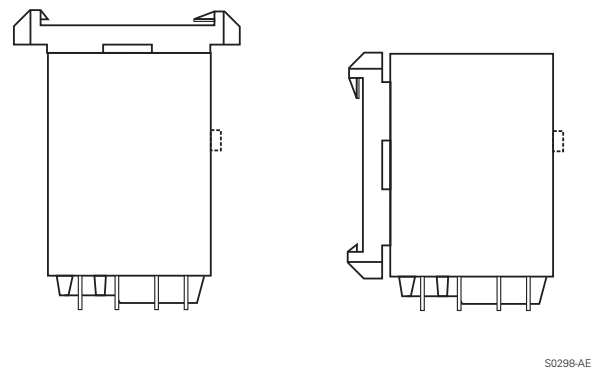
PCB version



Cover with mounting brackets, FASTON 250 (187 available)



Cover with DIN-snap-on attachment (FASTON 250 only)
horizontal vertical



Product key

Type	R M			
Contacts	2 2 C/O contacts, 16 A		7 3 C/O contacts, 16 A	
	3 3 C/O contacts, 10 A			
Version	0 without test button		3 with test button	
Enclosure	2 plain cover, AMP-Faston 187			
	3 cover with mounting brackets, AMP-Faston 187			
	5 cover with mounting brackets, AMP-Faston 250			
	7 PCB version			
	8 cover with DIN-snap-on attachment, horizontal, AMP-Faston 250			
	9 cover with DIN-snap-on attachment, vertical, AMP-Faston 250			
Coil	Coil code: please refer to coil versions table, preferred types in bold print			

AMP-Faston 187 = 4.8 x 0.5 mm AMP-Faston 250 = 6.3 x 0.8 mm

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Product key	Contacts	Version	Enclosure	Coil	Coil	Part number
RM202024	2 C/O contacts 16 A	without test button	plain cover AMP 187	DC-coil	24 Vdc	8-1393149-2
AC-coil				24 Vac	1-1393146-9	
RM202615					115 Vac	2-1393146-0
RM202730					230 Vac	1-1393148-4
RM203024			mounting brackets AMP 187	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 AMP 250	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 AMP 187	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 AMP 187	DC-coil	24 Vdc	3-1393107-5
RM233615				AC-coil	115 Vac	4-1393146-2
RM235024			mounting brackets AMP 250	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 C/O contacts 10 A	without test button	plain cover AMP 187	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				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		mounting brackets AMP 187	DC-coil	24 Vdc	9-1393149-2
RM332524				AC-coil	24 Vac	9-1393149-3
RM332730					230 Vac	9-1393149-4
RM333024				DC-coil	24 Vdc	9-1393149-6
RM335730			mount. Br AMP250	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 C/O contacts 16 A	without test button	plain cover AMP 187	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				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 AMP 250	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-snap-on AMP 250	DC-coil	24 Vdc	0-1393147-4
RM708730						230 Vac
RM709024				DC-coil	24 Vdc	2-1393149-2
RM709730				AC-coil	230 Vac	0-1393147-5
RM732024	with test button		mounting brackets AMP 187	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					230 Vac	1-1393147-5
RM735024			mounting brackets AMP 250	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	DC-coil	24 Vdc	2-1393844-0
RM738730			horizontal	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