Protection components
Single-pole magnetic over current relays

Presentation

The RM1 XA electromagnetic relay detects over current peaks in excess of the maximum permissible current value. It is designed for the protection of circuits which are not subject to current peaks (starters, resistors) or for controlling starting peaks on slip ring motors.

It trips instantaneously and is not suitable for frequent operation (12 operating cycles per hour). It can withstand a continuous current equivalent to 1.25 times the minimum setting current.

Environment characteristics

Conforming to standards		Standard version NF C 63-650, VDE 0660
Approvals		CSA
Protective treatment		Standard version “TC”, special version “TH”
Ambient air temperature around the device	**°C**	Storage: - 60…+ 70 Operation: - 40…+ 60
Maximum operating altitude	**m**	3000
Operating position		± 15° in relation to normal vertical mounting position

Electrical characteristics of power circuit

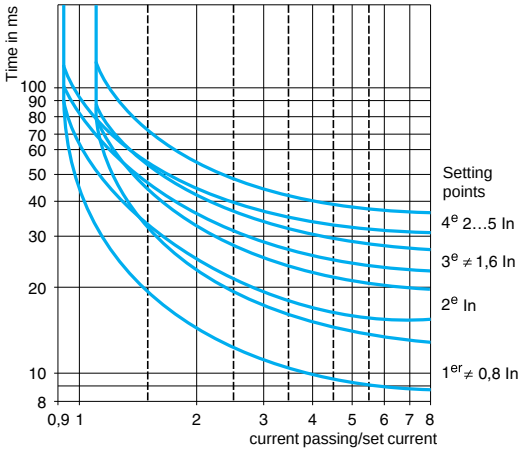
Maximum rated operational voltage	**V**	∼ or ⎓ 600
Frequency limits of the rated operational current	**Hz**	0…60

Electrical characteristics of auxiliary contacts

Conventional thermal current			**A**	10				
Occasional making and breaking capacities	a.c. supply	Voltage	**V**	48	110	220	380	600
		Power *(1)*	**VA**	4000	12 000	17 000	22 000	–
	d.c. supply	Voltage	**V**	48	110	220	440	600
		Power *(2)*	**W**	240	200	190	180	180

(1) Circuit such as the electromagnet of a contactor - cos φ inrush: 0.7 and cos φ sealed: 0.4.
(2) Circuit such as an electromagnet without economy resistor ; time constant varying from 20 ms for 5 W to 200 ms for 100 W or more.

Operating times



Operating times: because of the numerous applications for RM1 XA over current relays, it is not possible to give precise operating times. The curves shown are therefore purely indicative.

References: pages 27031/3 and 27031/4
Dimensions: page 27031/5
Schemes: page 27031/5

Protection components
Single-pole magnetic over current relays

533558

RM1 XA001

Non-latching

With 1 C/O contact block, non-latching

Recommanded operating range (motor In)		Setting range (trip current)	Maximum continuous current ~ or ⎓	Reference	Weight
A		A	A		kg
~ or ⎓	0.7…1.15	1.25…4	1.6	**RM1 XA001**	0.990
	1.16…1.8	2…6.3	2.5	**RM1 XA002**	0.990
	1.9…2.9	3.2…10	4	**RM1 XA004**	0.990
	3…4.6	5…16	6.3	**RM1 XA006**	0.990
	4.7…7.2	8…25	10	**RM1 XA010**	0.990
	7.3…11.5	12.5…40	16	**RM1 XA016**	0.990
	11.6…18	20…63	25	**RM1 XA025**	0.990
	18.1…29	32…100	40	**RM1 XA040**	0.990
	29.1…46	50…160	63	**RM1 XA063**	0.990
	46.1…72	80…250	100	**RM1 XA100**	0.990
	73…115	125…400	160	**RM1 XA160**	0.990
	116…145	160…500	200	**RM1 XA200**	0.990
	146…230	250…800	315	**RM1 XA315**	0.990
	231…360	400 …1250	500	**RM1 XA500**	0.990
~	361…630	630…2200	1000	**RM1 XA101**	0.990
⎓	361…570	630…2000	1000	**RM1 XA101**	0.990

Accessory (to be ordered separately)

Description	Reference	Weight kg
1 C/O contact block, non-latching	**RM1 ZG21**	0.060

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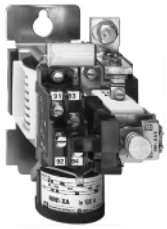
Dimensions: page 27031/5
Schemes: page 27031/5

Protection components
Single-pole magnetic over current relays

533559

RM1 XA0011

533560



RM1 XA1001
+
ER1 XA2●

533561

RM1 XA0011
+
RM1 ZH21

Latching with manual reset

With 1 C/O contact block, latching with manual reset

	Recommanded operating range (motor In)	Setting range (trip current)	Maximum continuous current ∼ or ⎓	Reference	Weight
	A	A	A		kg
∼ or ⎓	0.7…1.15	1.25…4	1.6	**RM1 XA0011**	0.990
	1.16…1.8	2…6.3	2.5	**RM1 XA0021**	0.990
	1.9…2.9	3.2…10	4	**RM1 XA0041**	0.990
	3…4.6	5…16	6.3	**RM1 XA0061**	0.990
	4.7…7.2	8…25	10	**RM1 XA0101**	0.990
	7.3…11.5	12.5…40	16	**RM1 XA0161**	0.990
	11.6…18	20…63	25	**RM1 XA0251**	0.990
	18.1…29	32…100	40	**RM1 XA0401**	0.990
	29.1…46	50…160	63	**RM1 XA0631**	0.990
	46.1…72	80…250	100	**RM1 XA1001**	0.990
	73…115	125…400	160	**RM1 XA1601**	0.990
	116…145	160…500	200	**RM1 XA2001**	0.990
	146…230	250…800	315	**RM1 XA3151**	0.990
	231…360	400…1250	500	**RM1 XA5001**	0.990
∼	361…630	630…2200	1000	**RM1 XA1011**	0.990
⎓	361…570	630…2000	1000	**RM1 XA1011**	0.990

Accessories (to be ordered separately)

Description	Reference	Weight kg
1 C/O contact block, latching	**RM1 ZH21**	0.070
Electrical reset *(1)* (consumption: inrush, sealed: 500 VA) (fitted to the relay together with a latching contact block) Basic reference. Complete with code indicating control circuit voltage *(2)*	**ER1 XA2●**	0.240

(1) The impulse duration must not exceed 2 seconds within 10 minute intervals.
(2) Standard coil voltages for electrical reset:

Volts	24	48	110	220	380
50 Hz	B	E	F	M	Q

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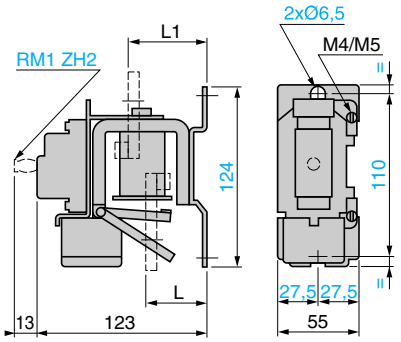
Schemes: page 27031/5

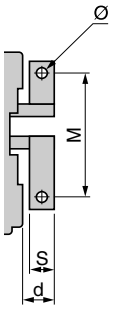
Dimensions

RM1 XA●●●, RM1 XA●●●1

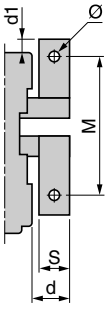
Common side view



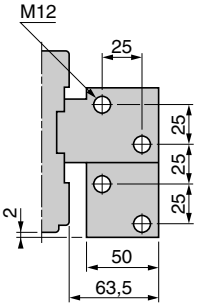
RM1 XA001…XA040
RM1 XA0011…XA0401



RM1 XA063, XA100 and XA315
RM1 XA0631, XA1001 and XA3151

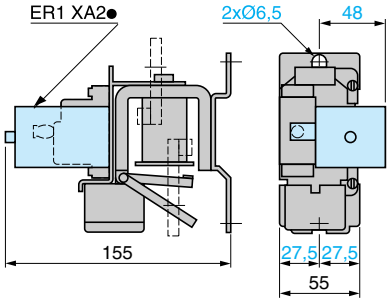


RM1 XA160, XA200, and XA500
RM1 XA1601, XA2001, and XA5001



RM1 XA101, RM1 XA1011

RM1 XA●●●1 with electrical reset ER1 XA2●

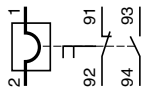


RM1	d	d1	M	L	L1	S	Ø
XA 063	20.5	–	83	25	40	15	M6
XA 100	20.5	–	87	25	40	20	M8
XA 160	27.5	5.5	94	25	40	25	M8
XA 200	27.5	5.5	94	25	40	25	M8
XA 315	35.5	–	74	44	55	30	M10
XA 500	40.5	7	84	44	55	40	M10
XA 101	–	–	–	37	64	–	–

Schemes

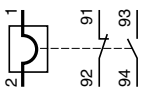
RM1 XA●●●1

Latching



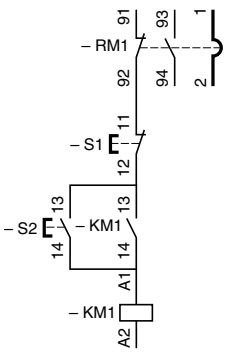
RM1 XA●●●

Non-latching

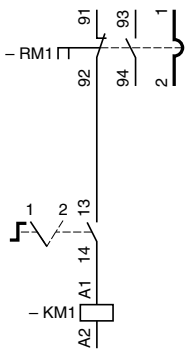


RM1 XA

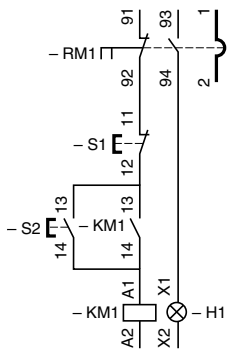
3-wire control (without mechanical latching)



2-wire control (with mechanical latching)



3-wire control (with “trip” signal)



Characteristics: page 27031/2

References : pages 27031/3 and 27031/4