

# Product datasheet

Specifications



## Miniature plug-in relay, 12 A, 2 CO, 120 V AC

RXM2AB1F7

### Main

Range of product	Harmony Electromechanical Relays
Series name	Miniature
Product or component type	Plug-in relay
Device short name	RXM
Contacts type and composition	2 C/O
[Uc] control circuit voltage	120 V AC 50/60 Hz
Status LED	Without
Control type	Lockable test button
Utilisation coefficient	20 %

### Complementary

Shape of pin	Flat
[Ui] rated insulation voltage	250 V conforming to IEC 300 V conforming to CSA 300 V conforming to UL
[Uimp] rated impulse withstand voltage	4 kV during 1.2/50 µs
Contacts material	AgNi
[Ie] rated operational current	12 A at 28 V (DC) NO conforming to IEC 12 A at 250 V (AC) NO conforming to IEC 6 A at 28 V (DC) NC conforming to IEC 6 A at 250 V (AC) NC conforming to IEC 12 A at 28 V (DC) conforming to UL 12 A at 277 V (AC) conforming to UL
Continuous output current	10 A
Maximum switching voltage	250 V conforming to IEC
Resistive rated load	12 A at 250 V AC 12 A at 28 V DC
Maximum switching capacity	3000 VA/336 W
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 1200 cycles/hour under load <= 18000 cycles/hour no-load
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles for resistive load

Average coil consumption in VA	1.2 at 60 Hz
Average consumption	1.2 VA at 60 Hz
Drop-out voltage threshold	>= 0.15 Uc
Operate time	20 ms
Release time	20 ms
Average coil resistance	4430 Ohm at 20 °C +/- 15 %
Rated operational voltage limits	96...132 V AC
Safety reliability data	B10d = 100000
Protection category	RT I
Test levels	Level A group mounting
Operating position	Any position
Net weight	0.037 kg
Device presentation	Complete product

## Environment

Dielectric strength	1300 V AC between contacts with micro disconnection 2000 V AC between coil and contact with basic insulation 2000 V AC between poles with basic insulation
Product certifications	Lloyd's GOST CSA UL CE
Standards	UL 508 IEC 61810-1 CSA C22.2 No 14
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	-40...55 °C
Vibration resistance	3 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles in operation 5 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles not operating
IP degree of protection	IP40 conforming to IEC 60529
Shock resistance	10 gn for in operation 30 gn for not operating
Pollution degree	3

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.1 cm
Package 1 Width	2.1 cm
Package 1 Length	2.72 cm
Package 1 Weight	37 g
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	3 cm
Package 2 Width	10.2 cm
Package 2 Length	12.5 cm
Package 2 Weight	382 g

Unit Type of Package 3	S02
Number of Units in Package 3	240
Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	9.643 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

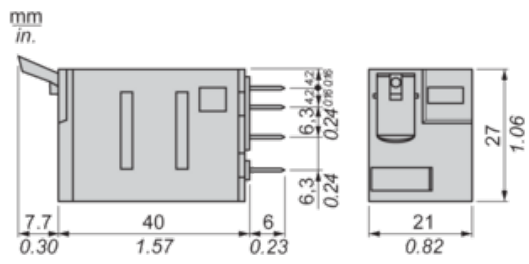
### Contractual warranty

Warranty	18 months
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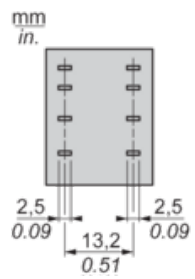
## Dimensions Drawings

**RXM2AB1F7**

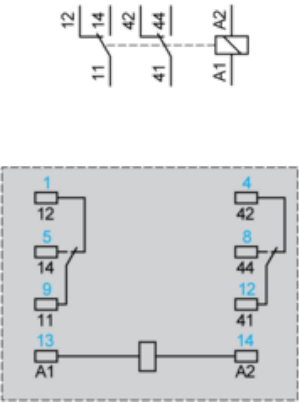
## Dimensions



### Pin Side View



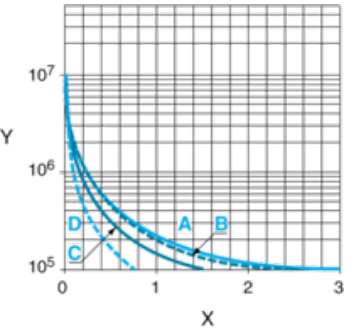
Wiring Diagram



Electrical Durability of Contacts

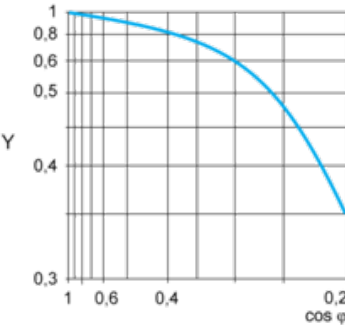
Durability (inductive load) = durability (resistive load) x reduction coefficient.

Resistive AC load



- X Switching capacity (kVA)
- Y Durability (Number of operating cycles)
- A RXM2AB...
- B RXM3AB...
- C RXM4AB...
- D RXM4GB...

Reduction coefficient for inductive AC load (depending on power factor cos φ)



- Y Reduction coefficient (A)

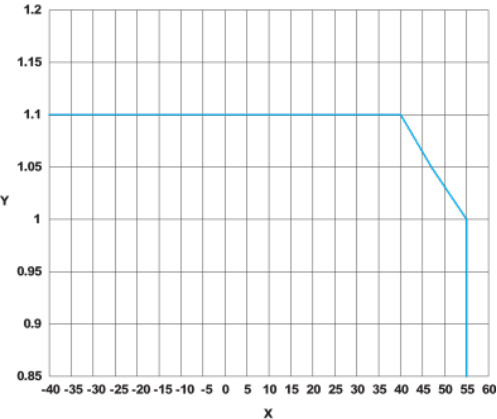
Maximum switching capacity on resistive DC load



- X Voltage DC
- Y Current DC
- A RXM2AB...
- B RXM3AB...
- C RXM4AB...
- D RXM4GB...

**Note :** These are typical curves, actual durability depends on load, environment, duty cycle, etc.  
For inductive load, to increase relay life cycles, please add a proper load protection circuit (eg: RC protection/Varistor/free Wheeling diode -DC load only- ).  
For low level loads (below 10mA), we recommend to use RXM\*GB series with bifurcated contacts relays instead.

AC Coil Voltage and Operating Temperature under continuous duty



X : Operating temperature (°C)  
Y : AC coil voltage (UC)

Recommended replacement(s)