

# Product data sheet

Specifications



## Miniature plug in relay, Harmony, 12A, 2CO, with LED, lockable test button, 120V DC

RXM2AB2FD

### 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	110 V DC
Status LED	With
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 $\mu$ s
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	$\leq$ 1200 cycles/hour under load $\leq$ 18000 cycles/hour no-load
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles for resistive load

<b>Average coil consumption</b>	0.9 W
<b>Drop-out voltage threshold</b>	$\geq 0.1 U_c$
<b>Operate time</b>	20 ms
<b>Release time</b>	20 ms
<b>Average coil resistance</b>	13440 Ohm at 20 °C +/- 10 %
<b>Rated operational voltage limits</b>	88...121 V DC
<b>Safety reliability data</b>	B10d = 100000
<b>Protection category</b>	RT I
<b>Test levels</b>	Level A group mounting
<b>Operating position</b>	Any position
<b>CAD overall height</b>	82.8 mm
<b>CAD overall depth</b>	80.35 mm
<b>Net weight</b>	0.037 kg
<b>Device presentation</b>	Complete product

## Environment

<b>Dielectric strength</b>	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
<b>Product certifications</b>	GOST Lloyd's UL CSA CE
<b>Standards</b>	CSA C22.2 No 14 EN/IEC 61810-1 UL 508
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Ambient air temperature for operation</b>	-40...55 °C
<b>Vibration resistance</b>	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
<b>IP degree of protection</b>	IP40 conforming to EN/IEC 60529
<b>Shock resistance</b>	10 gn for in operation 30 gn for not operating
<b>Pollution degree</b>	3

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.2 cm
<b>Package 1 Width</b>	2.8 cm
<b>Package 1 Length</b>	4.8 cm
<b>Package 1 Weight</b>	36 g
<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	10
<b>Package 2 Height</b>	3.4 cm
<b>Package 2 Width</b>	10.4 cm
<b>Package 2 Length</b>	12.7 cm

Package 2 Weight	395 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	9.99 kg

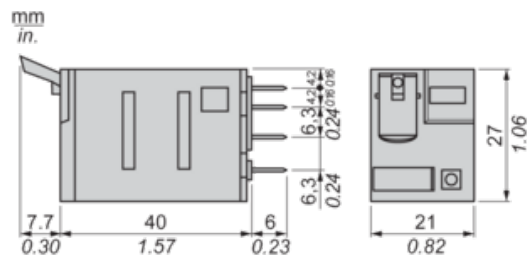
## Offer Sustainability

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	Yes
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
California proposition 65	WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

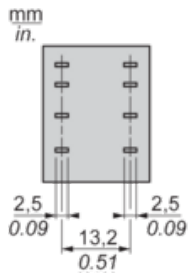
## Contractual warranty

Warranty	18 months
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Dimensions

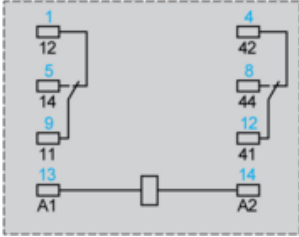
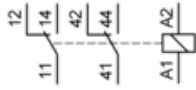


Pin Side View



## Wiring Diagram

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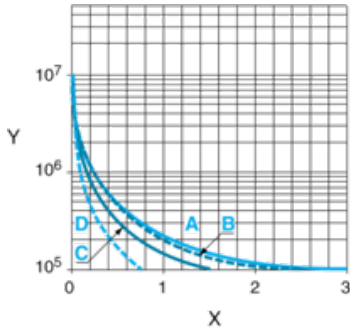


Symbols shown in blue correspond to Nema marking.

**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)

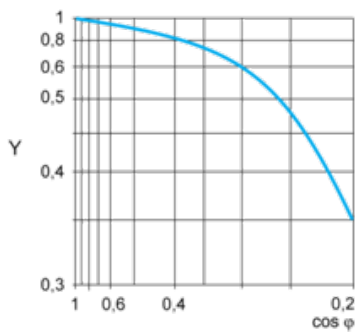
A RXM2AB...

B RXM3AB...

C RXM4AB...

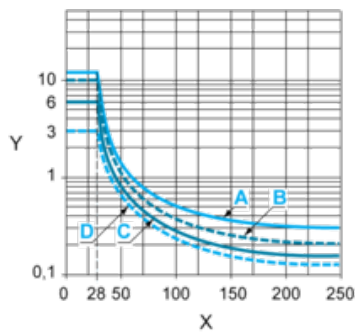
D RXM4GB...

Reduction coefficient for inductive AC load (depending on power factor  $\cos \phi$ )



Y Reduction coefficient (A)

Maximum switching capacity on resistive DC load



X Voltage DC

Y Current DC

A RXM2AB...

B RXM3AB...

C RXM4AB...

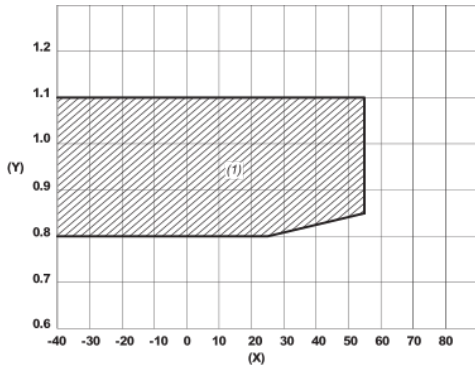
D RXM4GB...

**Note :** These are typical curves, actual durability depends on load, environment, duty cycle, etc.

**Coil Operating Range**

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**DC Coil Operating Range VS Ambient Temperature**



X : Ambient temperature (°C)

Y : AC coil voltage (U/Uc)

(1) Permitted operating range area

**Recommended replacement(s)**