

# Product data sheet

Specifications



## Miniature plug in relay, Harmony, 12A, 2CO, lockable test button, 48V DC

RXM2AB1ED

### 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	48 V DC
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 $\mu$ 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

Average coil consumption	0.9 W
Drop-out voltage threshold	$\geq 0.1 U_c$
Operate time	20 ms
Release time	20 ms
Average coil resistance	2560 Ohm at 20 °C +/- 10 %
Rated operational voltage limits	38.4...52.8 V DC
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	CSA CE GOST UL Lloyd's
Standards	CSA C22.2 No 14 EN/IEC 61810-1 UL 508
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 EN/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	1.1 cm
Package 1 Width	2.2 cm
Package 1 Length	5 cm
Package 1 Weight	35 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	385 g
Unit Type of Package 3	S01

<b>Number of Units in Package 3</b>	120
<b>Package 3 Height</b>	15 cm
<b>Package 3 Width</b>	15 cm
<b>Package 3 Length</b>	40 cm
<b>Package 3 Weight</b>	4.888 kg

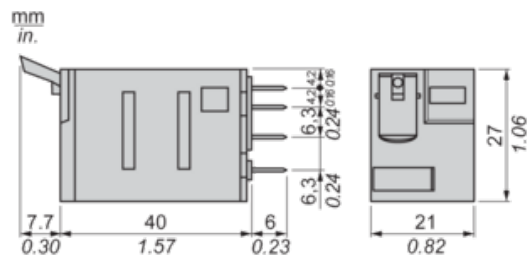
## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Toxic heavy metal free</b>	Yes
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>California proposition 65</b>	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>

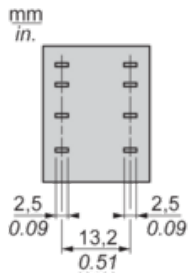
## Contractual warranty

<b>Warranty</b>	18 months
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Dimensions

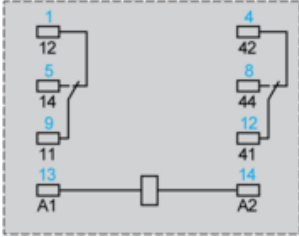
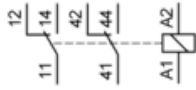


Pin Side View



## Wiring Diagram

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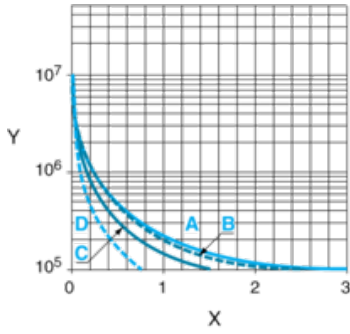


Symbols shown in blue correspond to Nema marking.

**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)

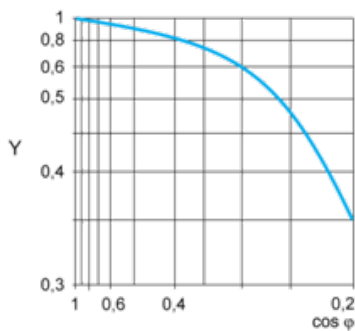
A RXM2AB...

B RXM3AB...

C RXM4AB...

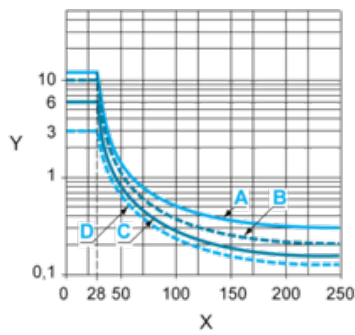
D RXM4GB...

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...

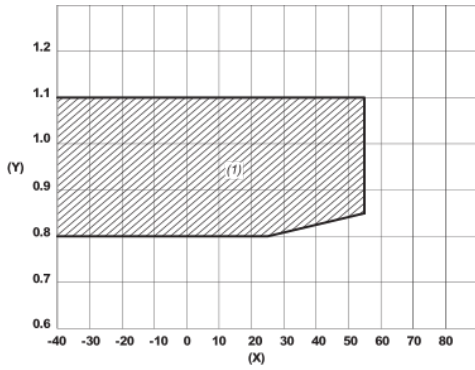
D RXM4GB...

**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)