

# Product datasheet

Specifications



## Miniature plug-in relay, 12 A, 2 CO, LED, 24 V DC

RXM2AB2BD

### 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  | 24 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<br>300 V conforming to CSA<br>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<br>12 A at 250 V (AC) NO conforming to IEC<br>6 A at 28 V (DC) NC conforming to IEC<br>6 A at 250 V (AC) NC conforming to IEC<br>12 A at 28 V (DC) conforming to UL<br>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<br>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<br><= 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       | >= 0.1 Uc                 |
| Operate time                     | 20 ms                     |
| Release time                     | 20 ms                     |
| Average coil resistance          | 650 Ohm at 20 °C +/- 10 % |
| Rated operational voltage limits | 19.2...26.4 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<br>2000 V AC between coil and contact with basic insulation<br>2000 V AC between poles with basic insulation |
| Product certifications                | GOST<br>UL<br>Lloyd's<br>CSA<br>CE                                                                                                                               |
| Standards                             | CSA C22.2 No 14<br>IEC 61810-1<br>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<br>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<br>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             | 2.0 cm  |
| Package 1 Width              | 2.8 cm  |
| Package 1 Length             | 4.8 cm  |
| Package 1 Weight             | 37.0 g  |
| Unit Type of Package 2       | BB1     |
| Number of Units in Package 2 | 10      |
| Package 2 Height             | 3.0 cm  |
| Package 2 Width              | 10.0 cm |
| Package 2 Length             | 12.5 cm |
| Package 2 Weight             | 396.0 g |
| Unit Type of Package 3       | S02     |

|                              |          |
|------------------------------|----------|
| Number of Units in Package 3 | 240      |
| Package 3 Height             | 15.0 cm  |
| Package 3 Width              | 30.0 cm  |
| Package 3 Length             | 40.0 cm  |
| Package 3 Weight             | 9.994 kg |

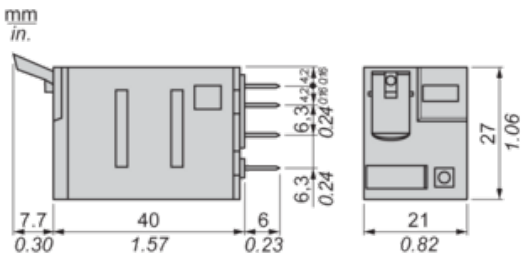
### Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 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)<br><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 |

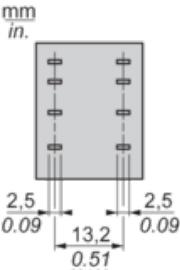
### Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

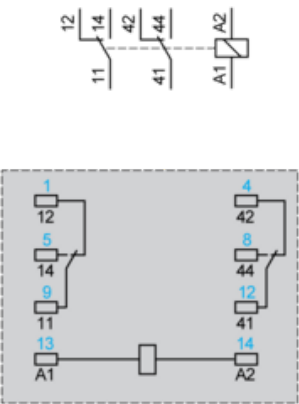
Dimensions



Pin Side View



Wiring Diagram

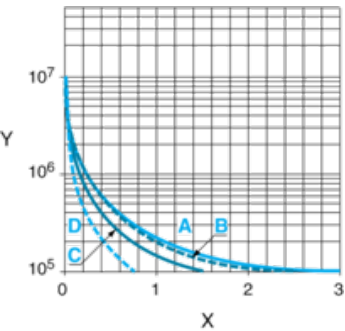


Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

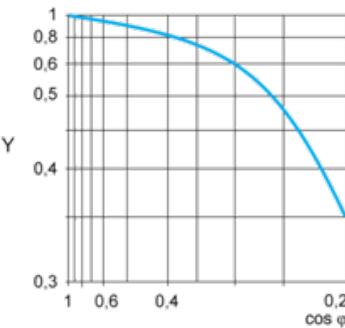
Durability (inductive load) = durability (resistive load) x reduction coefficient.

Resistive AC load



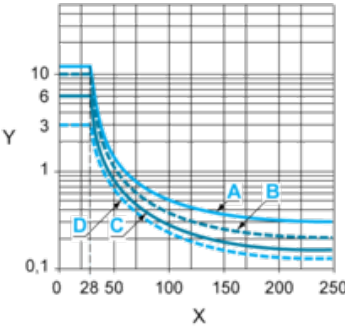
- X Switching capacity (kVA)
- Y Durability (Number of operating cycles)
- A RXM2AB...
- B RXM3AB...
- C RXM4AB...
- D RXM4GB...

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

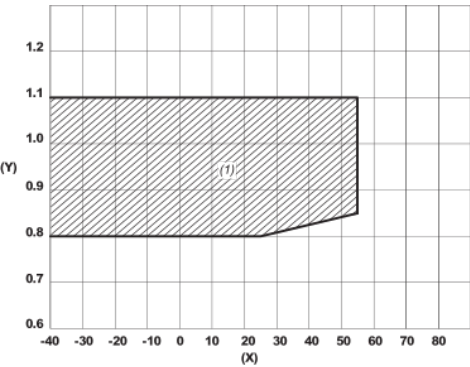
**Note :** These are typical curves, actual durability depends on load, environment, duty cycle, etc.

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.

Coil Operating Range

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)