# Product datasheet

Specifications




## Miniature plug-in relay, 10 A, 3 CO, 48 V DC

Local distributor code:

389837541 RXM3AB1ED

**EAN Code: 3389119403573**

## Main

| | |
|---|---|
| **Range of product** | Harmony Electromechanical Relays |
| **Series name** | RXM series |
| **Product or component type** | Plug-in relay |
| **Relay type** | Miniature relay |
| **Contacts type and composition** | 3 C/O |
| **status LED** | Without |
| **Control type** | Lockable test button |
| **[Uc] control circuit voltage** | 48 V DC |
| **[Ithe] conventional enclosed thermal current** | 10 A |
| **Continuous output current** | 6.7 A |

## Complementary

| | |
|---|---|
| **[Uimp] rated impulse withstand voltage** | 4 kV during 1.2/50 µs |
| **[Ie] rated operational current** | 10 A at 28 V (DC) NO conforming to IEC<br>10 A at 250 V (AC) NO conforming to IEC<br>5 A at 28 V (DC) NC conforming to IEC<br>5 A at 250 V (AC) NC conforming to IEC<br>10 A at 30 V (DC) conforming to UL<br>10 A at 277 V (AC) conforming to UL |
| **Minimum switching capacity** | 170 mW at 10 mA, 17 V |
| **Electrical durability** | 100000 cycles for resistive load |
| **Rated operational voltage limits** | 38.4...52.8 V DC |
| **[Ui] rated insulation voltage** | 250 V conforming to IEC<br>300 V conforming to CSA<br>300 V conforming to UL |
| **Maximum switching voltage** | 250 V conforming to IEC |
| **Drop-out voltage threshold** | >= 0.1 Uc |
| **Load current** | 10 A at 250 V AC<br>10 A at 28 V DC |
| **Operating time** | 20 ms |
| **Maximum switching capacity** | 2500 VA/280 W |
| **Average resistance** | 2560 Ohm at 20 °C +/- 10 % |
| **Average coil consumption** | 0.9 W |
| **Mechanical durability** | 10000000 cycles |
| **Safety reliability data** | B10d = 100000 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **Operating rate** | <= 1200 cycles/hour under load<br><= 18000 cycles/hour no-load |
| **Utilisation coefficient** | 20 % |
| **CAD overall height** | 82.8 mm |
| **CAD overall depth** | 80.35 mm |
| **Reset time** | 20 ms |
| **Dielectric strength** | 1300 V AC between contacts with micro disconnection<br>2000 V AC between coil and contact<br>2000 V AC between poles |
| **Compatibility code** | RXM |
| **Protection category** | RT I |
| **Pollution degree** | 2 |
| **Operating position** | Any position |
| **Test levels** | Level A group mounting |
| **Device presentation** | Complete product |
| **Contacts material** | AgNi |
| **Shape of pin** | Flat (faston type) |
| **Net weight** | 0.037 kg |

## Environment

| | |
|---|---|
| **Ambient air temperature for operation** | -40…55 °C |
| **IP degree of protection** | IP40 conforming to IEC 60529 |
| **Standards** | UL 508<br>IEC 61810-1<br>CSA C22.2 No 14 |
| **Product certifications** | UL<br>Lloyd's<br>CE<br>CSA<br>GOST<br>IECEE CB Scheme |
| **Ambient air temperature for storage** | -40…85 °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 |
| **Shock resistance** | 10 gn for in operation<br>30 gn for not operating |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 4.1 cm |
| **Package 1 Width** | 2.1 cm |
| **Package 1 Length** | 2.8 cm |
| **Package 1 Weight** | 38.0 g |
| **Unit Type of Package 2** | BB1 |
| **Number of Units in Package 2** | 10 |
| **Package 2 Height** | 3.1 cm |

| | |
|---|---|
| **Package 2 Width** | 10.3 cm |
| **Package 2 Length** | 12.5 cm |
| **Package 2 Weight** | 392.0 g |
| **Unit Type of Package 3** | S01 |
| **Number of Units in Package 3** | 120 |
| **Package 3 Height** | 15.0 cm |
| **Package 3 Width** | 15.0 cm |
| **Package 3 Length** | 40.0 cm |
| **Package 3 Weight** | 4.958 kg |

## Logistical informations

| | |
|---|---|
| **Country of origin** | CN |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **16 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **0.3 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **16 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| EU RoHS Directive | **Compliant** |
| REACh Regulation | **Free of Substances of Very High Concern above the threshold** |

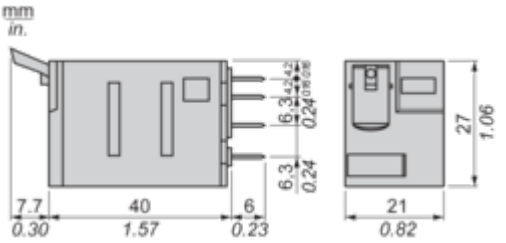
## Use Again

### Repack and remanufacture

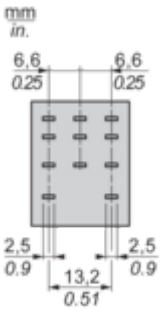
| | |
|---|---|
| Recyclability potential, in % | **55** |
| End of life manual availability | **End of Life Information** |
| Take-back | **No** |

Dimensions Drawings

## Dimensions

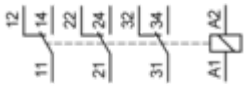


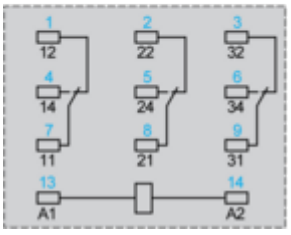

Pin Side View



## Connections and Schema

### Wiring Diagram



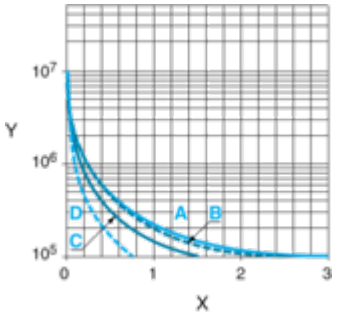




Symbols shown in blue correspond to Nema marking.

## Performance Curves

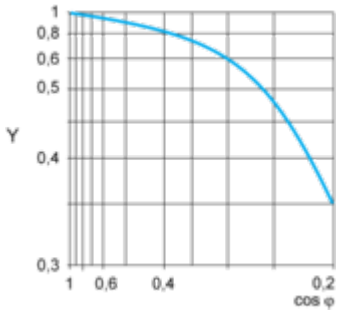
### Electrical Durability of Contacts

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



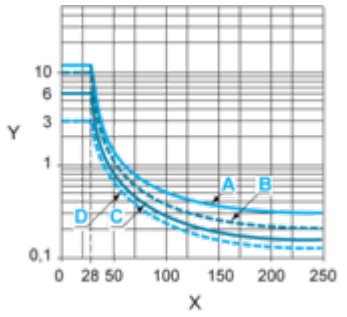

**X** Switching capacity (kVA)
**Y** Durability (Number of operating cycles)
**A** RXM2AB•••
**B** RXM3AB•••
**C** RXM4AB•••
**D** RXM4GB•••

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




**Y** Reduction coefficient (A)

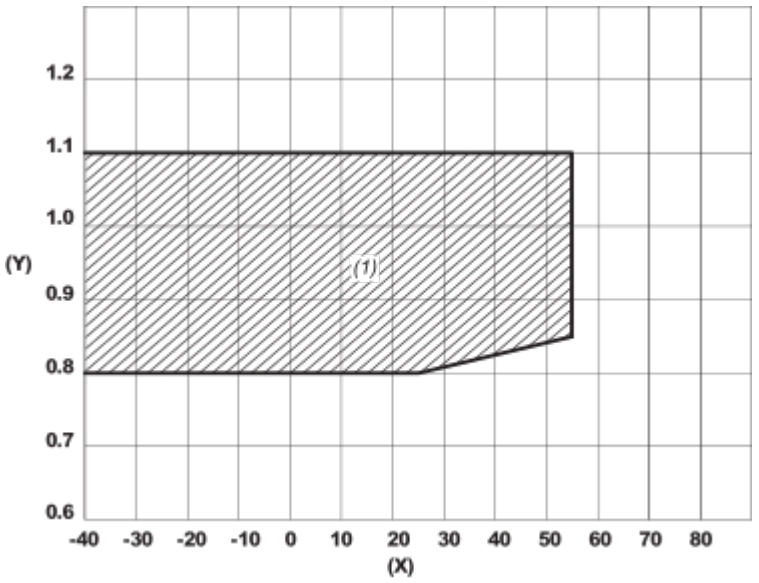
Maximum switching capacity on resistive DC load




**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 :** DC Coil voltage (U/Uc)
**(1) :** Permitted operating range area

Image of product / Alternate images

**Alternative**



