

# Product data sheet

Specifications



Harmony, Interface plug-in relay pre-assembled, 5 A, 2 CO, with LED, with protection circuit, 230 V AC

RXG23P7PV

## Main

|                               |   |
|-------------------------------|---|
| Range of product              | Harmony Electromechanical Relays        |
| Series name                   | Interface relay                         |
| Product or component type     | Pre-assembled plug-in relay with socket |
| Device short name             | RXG                                     |
| Contacts type and composition | 2 C/O                                   |

## Complementary

|  |   |
|--|---|
| Status LED                                   | With  |
| Contacts material                            | Silver alloy (AgSnO2In2O3)  |
| Maximum contact resistance                   | 100 mOhm  |
| [Ithe] conventional enclosed thermal current | 5 A   |
| [Ie] rated operational current               | 5 A at 30 V (DC) conforming to UL<br>5 A at 30 V (DC) conforming to IEC<br>5 A at 250 V (AC) conforming to IEC<br>5 A at 250 V (AC) conforming to UL  |
| Maximum switching voltage                    | 250 V   |
| Load current                                 | 5 A   |
| Maximum switching capacity                   | 1250 VA AC<br>150 W DC  |
| Minimum switching capacity                   | 50 mW at 10 mA, 5 V DC  |
| Operating rate                               | <= 1800 cycles/hour under load<br><= 18000 cycles/hour no-load  |
| Utilisation coefficient                      | 20 %  |
| Mechanical durability                        | 10000000 cycles   |
| Electrical durability                        | 100000 cycles resistive load  |
| [Ui] rated insulation voltage                | 250 V conforming to IEC   |
| [Uimp] rated impulse withstand voltage       | 6 kV 1.2/50 µs between coil and contact<br>4 kV 1.2/50 µs between poles<br>1.2 kV 1.2/50 µs between contacts<br>2.5 kV 1.2/50 µs between terminals and LTB area<br>1.5 kV 1.2/50 µs between terminals and base  |
| Dielectric strength                          | 1000 V AC between contacts with micro disconnection<br>1300 V between terminals and base with basic insulation<br>3000 V between terminals and LTB area with basic insulation<br>3000 V AC between poles with basic insulation<br>5000 V AC between coil and contact with reinforced insulation |

|  |  |
|--|--|
| <b>Coil resistance</b>                         | 23500 Ohm +/- 15 %   |
| <b>Insulation resistance</b>                   | 1000 MOhm at 500 V DC  |
| <b>Test levels</b>                             | Level A group mounting   |
| <b>Mounting position</b>                       | Any position   |
| <b>Average coil consumption</b>                | 0.96 VA AC 50...60 Hz  |
| <b>Drop-out voltage threshold</b>              | >= 0.3 U <sub>c</sub> AC   |
| <b>Coil insulation class</b>                   | Class F  |
| <b>Operate time</b>                            | 20 ms  |
| <b>Release time</b>                            | 20 ms  |
| <b>[U<sub>c</sub>] control circuit voltage</b> | 230 V AC 50/60 Hz  |
| <b>Safety reliability data</b>                 | B10d = 100000  |
| <b>Colour of cover</b>                         | Transparent  |
| <b>Torque value</b>                            | 0.8 N.m<br>0.79 N.m  |
| <b>Connections - terminals</b>                 | Connector, 1 x 0.25...1 x 2.5 mm <sup>2</sup> (AWG 22...AWG 14) flexible with cable end<br>Connector, 2 x 0.25...2 x 1 mm <sup>2</sup> (AWG 22...AWG 17) flexible with cable end<br>Connector, 1 x 0.5...1 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end<br>Connector, 2 x 0.5...2 x 1.5 mm <sup>2</sup> (AWG 20...AWG 16) solid without cable end |
| <b>Net weight</b>                              | 0.065 kg   |
| <b>Device presentation</b>                     | Complete product   |

## Environment

|  |  |
|--|--|
| <b>Vibration resistance</b>                  | 3 gn, amplitude = +/- 1.5 mm (f = 10...150 Hz)in operation<br>5 gn, amplitude = +/- 1.5 mm (f = 10...150 Hz)not in operation |
| <b>IP degree of protection</b>               | IP20   |
| <b>Shock resistance</b>                      | 20 gn in operation<br>100 gn not in operation  |
| <b>Protection category</b>                   | RT I   |
| <b>Standards</b>                             | IEC 61810-1<br>CSA C22.2 No 14<br>UL 508<br>IEC 61984  |
| <b>Product certifications</b>                | EAC<br>CSA<br>UL<br>CE<br>DNV-GL   |
| <b>Pollution degree</b>                      | 2  |
| <b>Overtoltage category</b>                  | III  |
| <b>Ambient air temperature for storage</b>   | -40...85 °C  |
| <b>Ambient air temperature for operation</b> | -40...70 °C  |
| <b>Relative humidity</b>                     | 10...85 %  |

## Packing Units

|                                     |         |
|-------------------------------------|---------|
| <b>Unit Type of Package 1</b>       | PCE     |
| <b>Number of Units in Package 1</b> | 1       |
| <b>Package 1 Weight</b>             | 67 g    |
| <b>Package 1 Height</b>             | 7.96 cm |
| <b>Package 1 width</b>              | 1.56 cm |

|                              |           |
|------------------------------|-----------|
| Package 1 Length             | 7.2 cm    |
| Unit Type of Package 2       | BB1       |
| Number of Units in Package 2 | 30        |
| Package 2 Weight             | 2.128 kg  |
| Package 2 Height             | 18 cm     |
| Package 2 width              | 9 cm      |
| Package 2 Length             | 27 cm     |
| Unit Type of Package 3       | S03       |
| Number of Units in Package 3 | 180       |
| Package 3 Weight             | 13.312 kg |
| Package 3 Height             | 30 cm     |
| Package 3 width              | 30 cm     |
| Package 3 Length             | 40 cm     |

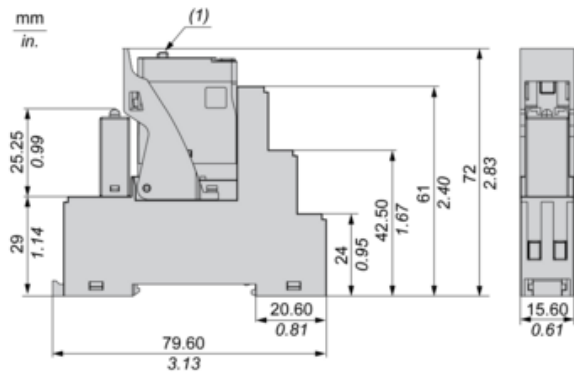
## Offer Sustainability

|                            |  |
|----------------------------|--|
| 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  |
| RoHS exemption information | <a href="#">Yes</a>  |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</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 |
|----------|-----------|

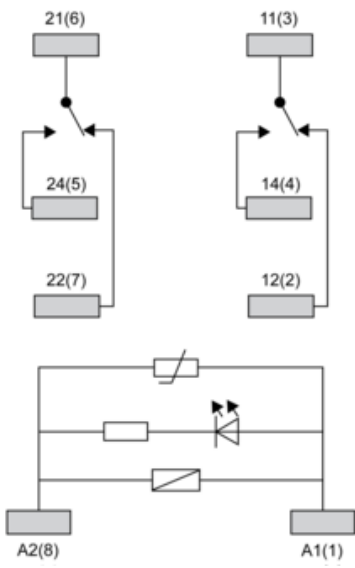
Dimensions



(1) Push button (if any)

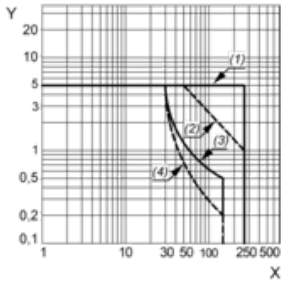
Wiring Diagram

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**Performance Curves**

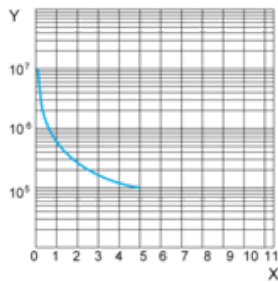
**Maximum Switching Capacity**



- X : Switching voltage (V)
- Y : Switching current (A)
- (1) AC Resistive Load
- (2) AC Inductive Load  $\cos(\phi)=0.4$
- (3) DC Resistive Load
- (4) DC Inductive Load ( $L/R=7ms$ )

**Life Expectancy**

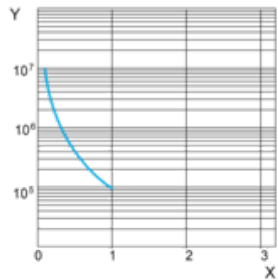
Resistive Load



- X : Contact Current (A)
- Y : Operating Cycle Number

**Life Expectancy**

Inductive Load



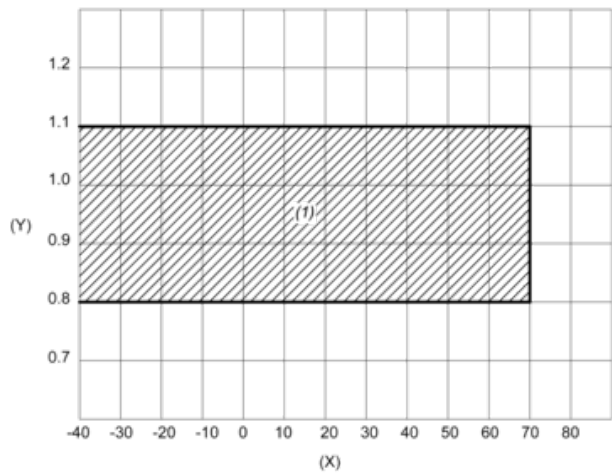
- X : Contact Current (A)
- Y : Operating Cycle Number

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

**Coil Operating Range**

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**AC Coil Operating Range VS Ambient Temperature**



X : Ambient temperature (°C)

Y : Coil voltage (U/Uc)

(1) Permitted operating range area