

# Product data sheet

Specifications



Harmony, Interface plug-in relay pre-assembled, 10 A, 1 CO, with LED, with lockable test button, with protection circuit, 24 V DC

RXG12BDPV

## 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	1 C/O

## Complementary

Status LED	With
Contacts material	Silver alloy (AgSnO <sub>2</sub> In <sub>2</sub> O <sub>3</sub> )
Maximum contact resistance	100 mOhm
[I <sub>th</sub> ] conventional enclosed thermal current	10 A
[I <sub>e</sub> ] rated operational current	10 A at 30 V (DC) conforming to UL 10 A at 30 V (DC) conforming to IEC 10 A at 250 V (AC) conforming to IEC 10 A at 250 V (AC) conforming to UL
Maximum switching voltage	250 V
Load current	10 A
Maximum switching capacity	2500 VA AC 300 W DC
Minimum switching capacity	500 mW at 100 mA, 5 V DC
Operating rate	<= 1800 cycles/hour under load <= 18000 cycles/hour no-load
Utilisation coefficient	20 %
Mechanical durability	10000000 cycles
Electrical durability	100000 cycles resistive load
[U <sub>i</sub> ] rated insulation voltage	250 V conforming to IEC
[U <sub>imp</sub> ] rated impulse withstand voltage	6 kV 1.2/50 µs between coil and contact 1.2 kV 1.2/50 µs between contacts 2.5 kV 1.2/50 µs between terminals and LTB area 1.5 kV 1.2/50 µs between terminals and base
Dielectric strength	1000 V AC between contacts with micro disconnection 1300 V between terminals and base with basic insulation 3000 V between terminals and LTB area with basic insulation 5000 V AC between coil and contact with reinforced insulation
Coil resistance	1100 Ohm +/- 10 %

<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>	0.53 W DC
<b>Drop-out voltage threshold</b>	>= 0.1 Uc DC
<b>Coil insulation class</b>	Class F
<b>Operate time</b>	20 ms
<b>Release time</b>	20 ms
<b>[Uc] control circuit voltage</b>	24 V DC
<b>Safety reliability data</b>	B10d = 100000
<b>Colour of cover</b>	Transparent
<b>Control type</b>	Lockable test button
<b>Torque value</b>	0.8 N.m 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 Connector, 2 x 0.25...2 x 1 mm <sup>2</sup> (AWG 22...AWG 17) flexible with cable end Connector, 1 x 0.5...1 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end 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>	0.058 kg
<b>Device presentation</b>	Complete product

## Environment

<b>Vibration resistance</b>	3 gn, amplitude = +/- 1.5 mm (f = 10...150 Hz)in operation 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 100 gn not in operation
<b>Protection category</b>	RT I
<b>Standards</b>	IEC 61810-1 CSA C22.2 No 14 UL 508 IEC 61984
<b>Product certifications</b>	EAC CSA UL CE
<b>Pollution degree</b>	2
<b>Overvoltage 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>	58 g
<b>Package 1 Height</b>	7.96 cm
<b>Package 1 width</b>	1.56 cm
<b>Package 1 Length</b>	7.2 cm

<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	30
<b>Package 2 Weight</b>	1.927 kg
<b>Package 2 Height</b>	17 cm
<b>Package 2 width</b>	9 cm
<b>Package 2 Length</b>	27 cm
<b>Unit Type of Package 3</b>	S03
<b>Number of Units in Package 3</b>	180
<b>Package 3 Weight</b>	12.125 kg
<b>Package 3 Height</b>	30 cm
<b>Package 3 width</b>	30 cm
<b>Package 3 Length</b>	40 cm

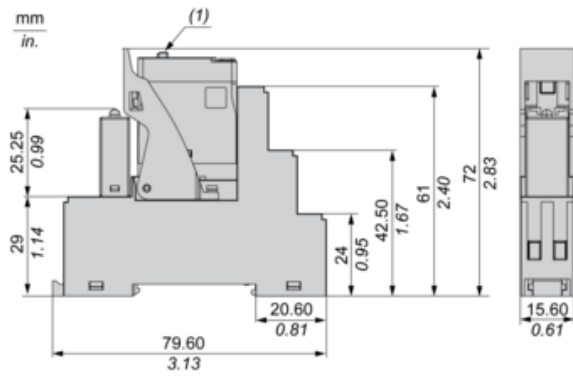
## Offer Sustainability

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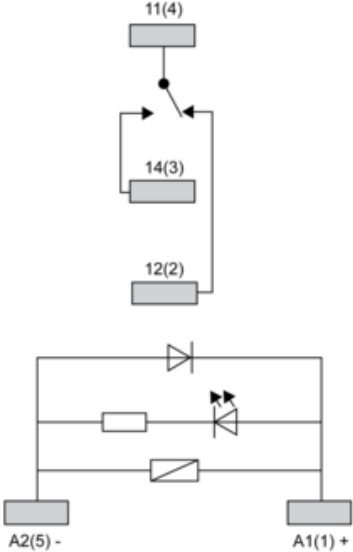
Dimensions



(1) Push button (if any)

## Wiring Diagram

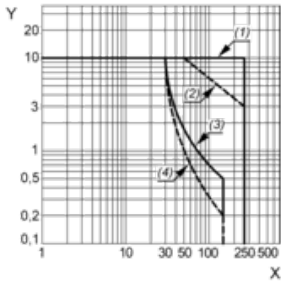
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**NOTE:** For DC input , A1 have to be + , otherwise it would short circuit from protection module

**Performance Curves**

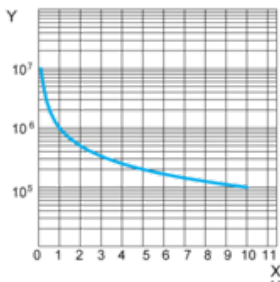
**Maximum Switching Capacity**



- 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**

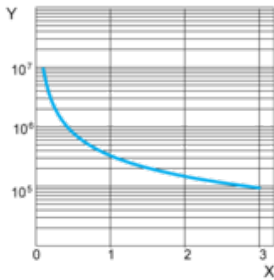
Resistive Load



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

**Life Expectancy**

Inductive Load



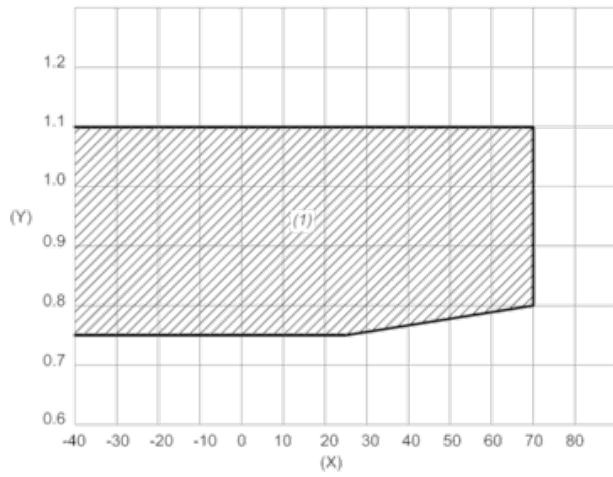
- X : Contact Current (A)
- Y : Operating Cycle Number

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

Coil Operating Range

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DC Coil Operating Range VS Ambient Temperature



X : Ambient temperature (°C)

Y : Coil voltage (U/Uc)

(1) Permitted operating range area