

Product data sheet

Characteristics

RXG23BDPV

Harmony, Interface plug-in relay pre-assembled, 5 A, 2 CO, with LED, with protection circuit, 24 V DC



Main

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

Complementary

Status LED	With
Contacts material	Silver alloy (AgSnO ₂ In ₂ O ₃)
Maximum contact resistance	100 mOhm
[I _{th}] conventional enclosed thermal current	5 A
[I _e] rated operational current	5 A at 30 V (DC) conforming to UL 5 A at 30 V (DC) conforming to IEC 5 A at 250 V (AC) conforming to IEC 5 A at 250 V (AC) conforming to UL
Maximum switching voltage	250 V
Load current	5 A
Maximum switching capacity	1250 VA AC 150 W DC
Minimum switching capacity	50 mW at 10 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 _i] rated insulation voltage	250 V conforming to IEC
[U _{imp}] rated impulse withstand voltage	6 kV 1.2/50 µs between coil and contact 4 kV 1.2/50 µs between poles 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 3000 V AC between poles with basic insulation 5000 V AC between coil and contact with reinforced insulation
Coil resistance	1100 Ohm +/- 10 %
Insulation resistance	1000 MOhm at 500 V DC
Test levels	Level A group mounting
Mounting position	Any position
Average coil consumption	0.53 W DC
Drop-out voltage threshold	>= 0.1 U _c DC

Coil insulation class	Class F
Operate time	20 ms
Release time	20 ms
[Uc] control circuit voltage	24 V DC
Safety reliability data	B10d = 100000
Colour of cover	Transparent
Torque value	0.8 N.M 0.79 N.m
Connections - terminals	Connector, 1 x 0.25...1 x 2.5 mm ² (AWG 22...AWG 14) flexible with cable end Connector, 2 x 0.25...2 x 1 mm ² (AWG 22...AWG 17) flexible with cable end Connector, 1 x 0.5...1 x 2.5 mm ² (AWG 20...AWG 14) solid without cable end Connector, 2 x 0.5...2 x 1.5 mm ² (AWG 20...AWG 16) solid without cable end
Product weight	0.065 kg
Device presentation	Complete product

Environment

Vibration resistance	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
IP degree of protection	IP20
Shock resistance	20 gn in operation 100 gn not in operation
Protection category	RT I
Standards	IEC 61810-1 CSA C22.2 No 14 UL 508 IEC 61984
Product certifications	EAC CSA UL CE
Pollution degree	2
Overvoltage category	III
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	-40...70 °C
Relative humidity	10...85 %

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	66 g
Package 1 Height	7.96 cm
Package 1 width	1.56 cm
Package 1 Length	7.2 cm
Unit Type of Package 2	S03
Number of Units in Package 2	180
Package 2 Weight	13.275 kg
Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm
Unit Type of Package 3	BB1
Number of Units in Package 3	30
Package 3 Weight	2.123 kg
Package 3 Height	17 cm
Package 3 width	9 cm
Package 3 Length	27 cm

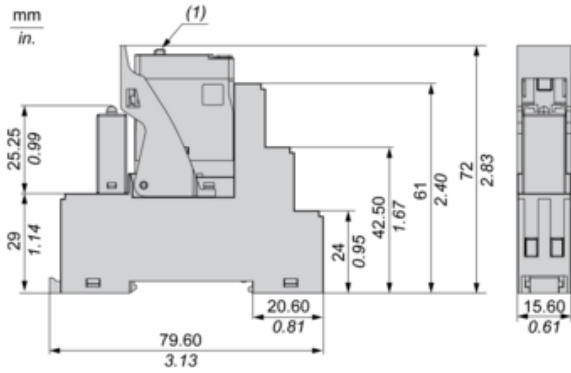
Offer Sustainability

EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

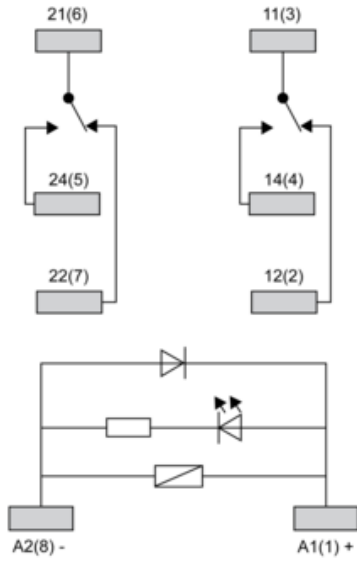
Warranty	18 months
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Dimensions



(1) Push button (if any)

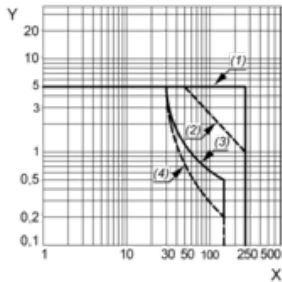
Wiring Diagram



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

Performance Curves

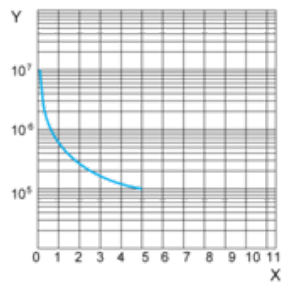
Maximum Switching Capacity



- 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 ($L/R=7\text{ms}$)

Life Expectancy

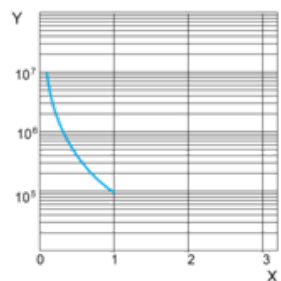
Resistive Load



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

Life Expectancy

Inductive Load

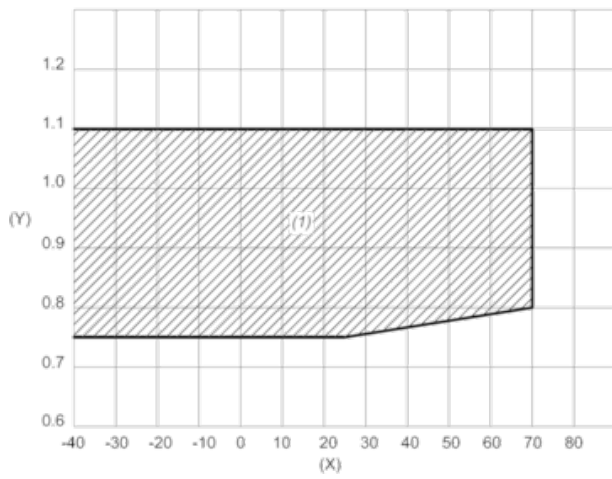


- X : Contact Current (A)
- Y : Operating Cycle Number

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

Coil Operating Range

DC Coil Operating Range VS Ambient Temperature



X : Ambient temperature (°C)

Y : Coil voltage (U/Uc)

(1) Permitted operating range area