

# Product data sheet

Specifications



## Harmony, Universal plug-in relay, 10 A, 2 CO, with LED, with lockable test button, 24 V DC

RUMC22BD

### Main

Range of product	Harmony Electromechanical Relays
Series name	Universal
Product or component type	Plug-in relay
Device short name	RUM
Contacts type and composition	2 C/O
[Uc] control circuit voltage	24 V DC
[Ithe] conventional enclosed thermal current	10 A at -40...55 °C
Status LED	With
Control type	Lockable test button
Utilisation coefficient	20 %

### Complementary

Shape of pin	Cylindrical
[Ui] rated insulation voltage	250 V conforming to IEC 300 V conforming to CSA 300 V conforming to UL
[Uimp] rated impulse withstand voltage	4 kV (1.2/50 µs)
Contacts material	AgNi
[Ie] rated operational current	10 A at 277 V AC conforming to UL 10 A at 30 V DC conforming to UL 10 A at 30 V DC conforming to CSA 5 A at 250 V AC (NC) conforming to IEC 5 A at 28 V DC (NC) conforming to IEC 10 A at 250 V AC (NO) conforming to IEC 10 A at 28 V DC (NO) conforming to IEC 10 A at 277 V AC conforming to CSA
Maximum switching voltage	250 V conforming to IEC
Resistive rated load	10 A at 250 V AC 10 A at 28 V DC
Maximum switching capacity	2500 VA/280 W
Minimum switching capacity	170 mW at 10 mA, 17 V
Operating rate	<= 18000 cycles/hour no-load <= 1200 cycles/hour under load
Mechanical durability	5000000 cycles

<b>Electrical durability</b>	100000 cycles for resistive load
<b>Average coil consumption in W</b>	1.4 W
<b>Drop-out voltage threshold</b>	>= 0.1 Uc DC
<b>Operate time</b>	20 ms at nominal voltage
<b>Release time</b>	20 ms at nominal voltage
<b>Average coil resistance</b>	470 Ohm at 20 °C +/- 15 %
<b>Rated operational voltage limits</b>	19.2...26.4 V DC
<b>Protection category</b>	RT I
<b>Test levels</b>	Level A group mounting
<b>Safety reliability data</b>	B10d = 100000
<b>Operating position</b>	Any position
<b>Net weight</b>	0.086 kg
<b>Device presentation</b>	Complete product

## Environment

<b>Dielectric strength</b>	1500 V AC between contacts with micro disconnection 2500 V AC between coil and contact with reinforced 2000 V AC between poles with basic
<b>Product certifications</b>	EAC UL CSA
<b>Standards</b>	CSA C22.2 No 14 UL 508 EN/IEC 61810-1
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Ambient air temperature for operation</b>	-40...55 °C
<b>Vibration resistance</b>	3 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles in operation 4 gn, amplitude = +/- 1 mm (f = 10...150 Hz)5 cycles not operating
<b>IP degree of protection</b>	IP40
<b>Shock resistance</b>	10 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27 10 gn (duration = 11 ms) for not operating conforming to EN/IEC 60068-2-27
<b>Pollution degree</b>	3

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	83 g
<b>Package 1 Height</b>	36 mm
<b>Package 1 width</b>	35 mm
<b>Package 1 Length</b>	69 mm
<b>Unit Type of Package 2</b>	BB1
<b>Number of Units in Package 2</b>	10
<b>Package 2 Weight</b>	931 g
<b>Package 2 Height</b>	4 cm
<b>Package 2 width</b>	14.6 cm
<b>Package 2 Length</b>	20 cm
<b>Unit Type of Package 3</b>	S02

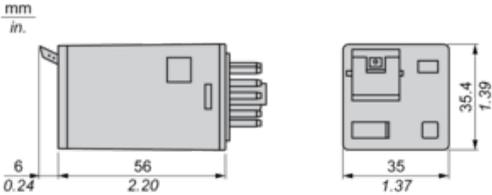
<b>Number of Units in Package 3</b>	60
<b>Package 3 Weight</b>	6.186 kg
<b>Package 3 Height</b>	15 cm
<b>Package 3 width</b>	30 cm
<b>Package 3 Length</b>	40 cm

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>REACH free of SVHC</b>	Yes
<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>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>

**Dimensions**

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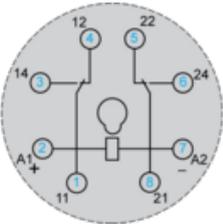
**Wiring Diagram**

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**Wiring Diagram**

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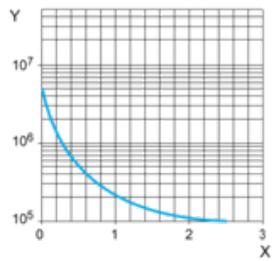
Symbols shown in blue correspond to Nema marking.

**Electrical Durability of Contacts**

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

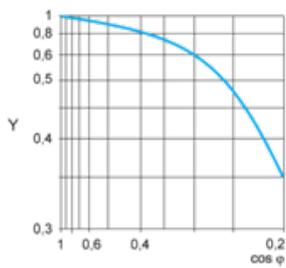
Resistive AC load



X Switching capacity (kVA)

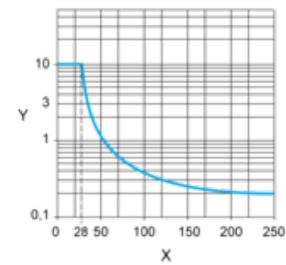
Y Durability (Number of operating cycles)

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

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