

# Product data sheet

Specifications



universal plug in relay, Harmony  
Electromechanical Relays, 10A,  
3CO, lockable test but to n, 12V AC

RUMC31JD

## 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	3 C/O
[Uc] Control Circuit Voltage	12 V DC
[Ithe] Conventional Enclosed Thermal Current	10 A at -40...55 °C
Status Led	Without
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 277 V AC (same polarity) conforming to CSA 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
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
Electrical Durability	100000 cycles for resistive load
Average Coil Consumption In W	1.4 W

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

Drop-Out Voltage Threshold	>= 0.1 Uc DC
Operate Time	20 ms at nominal voltage
Release Time	20 ms at nominal voltage
Average Coil Resistance	120 Ohm at 20 °C +/- 15 %
Rated Operational Voltage Limits	9.6...13.2 V DC
Protection Category	RT I
Test Levels	Level A group mounting
Safety Reliability Data	B10d = 100000
Operating Position	Any position
Net Weight	0.086 kg
Device Presentation	Complete product

## Environment

Dielectric Strength	1500 V AC between contacts with micro disconnection 2500 V AC between coil and contact with reinforced 2000 V AC between poles with basic
Product Certifications	UL EAC CSA
Standards	UL 508 CSA C22.2 No 14 IEC 61810-1
Ambient Air Temperature For Storage	-40...85 °C
Ambient Air Temperature For Operation	-40...55 °C
Vibration Resistance	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
Ip Degree Of Protection	IP40
Shock Resistance	10 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27 10 gn (duration = 11 ms) for not operating conforming to IEC 60068-2-27
Pollution Degree	2

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	3.6 cm
Package 1 Width	3.5 cm
Package 1 Length	6.9 cm
Package 1 Weight	90 g
Unit Type Of Package 2	BB1
Number Of Units In Package 2	10
Package 2 Height	4 cm
Package 2 Width	14.6 cm
Package 2 Length	19.8 cm
Package 2 Weight	973 g
Unit Type Of Package 3	S02

Number Of Units In Package 3	60
Package 3 Height	15 cm
Package 3 Width	30 cm
Package 3 Length	40 cm
Package 3 Weight	6.476 kg

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Rohs Exemption Information   Yes

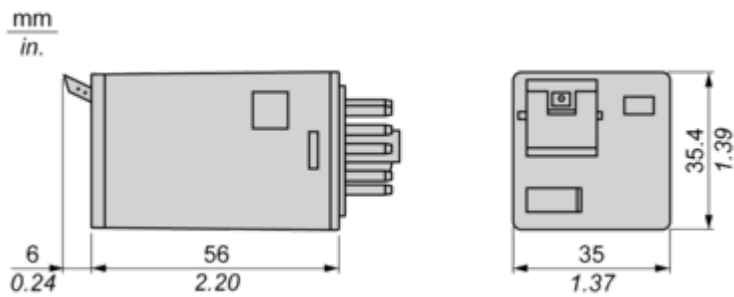
## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	No need of specific recycling operations
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>

Dimensions Drawings

Dimensions

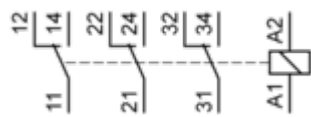
---



Connections and Schema

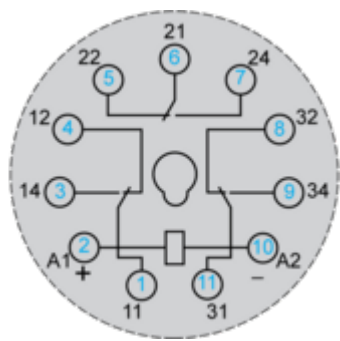
Wiring Diagram

---



Wiring Diagram

---

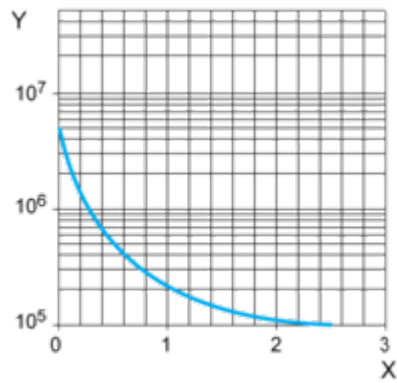


Symbols shown in blue correspond to Nema marking.

Performance Curves

Electrical Durability of Contacts

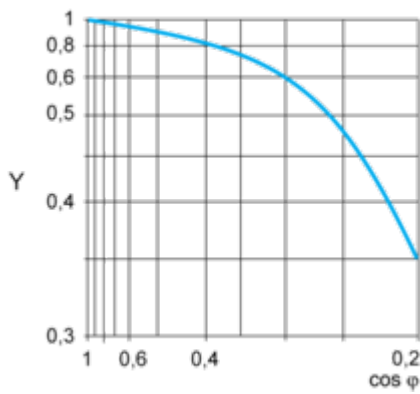
Durability (inductive load) = durability (resistive load) x reduction coefficient.  
Resistive AC load



X Switching capacity (kVA)

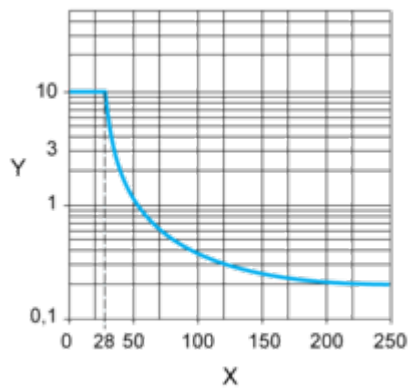
Y Durability (Number of operating cycles)

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.