

# RUMC31JD

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



## 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 -40...131 °F (-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 IEC<br>300 V CSA<br>300 V 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<br>10 A at 30 V DC conforming to UL<br>10 A at 277 V AC (same polarity) conforming to CSA<br>10 A at 30 V DC conforming to CSA<br>5 A at 250 V AC (NC) conforming to IEC<br>5 A at 28 V DC (NC) conforming to IEC<br>10 A at 250 V AC (NO) conforming to IEC<br>10 A at 28 V DC (NO) conforming to IEC |
| Maximum switching voltage              | 250 V IEC                                                                                                                                                                                                                                                                                                                                |
| Resistive rated load                   | 10 A 250 V AC<br>10 A 28 V DC                                                                                                                                                                                                                                                                                                            |
| Maximum switching capacity             | 2500 VA/280 W                                                                                                                                                                                                                                                                                                                            |
| Minimum switching capacity             | 170 mW 10 mA, 17 V                                                                                                                                                                                                                                                                                                                       |
| Operating rate                         | <= 18000 cycles/hour no-load<br><= 1200 cycles/hour under load                                                                                                                                                                                                                                                                           |
| Mechanical durability                  | 5000000 cycles                                                                                                                                                                                                                                                                                                                           |
| Electrical durability                  | 100000 cycles resistive                                                                                                                                                                                                                                                                                                                  |
| Average coil consumption in W          | 1.4 W                                                                                                                                                                                                                                                                                                                                    |
| 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 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          | 0.19 lb(US) (0.086 kg) |
| Device presentation | Complete product       |

## Environment

|                                       |                                                                                                                                                 |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Dielectric strength                   | 1500 V AC between contacts with micro disconnection<br>2500 V AC between coil and contact with reinforced<br>2000 V AC between poles with basic |
| Product Certifications                | UL<br>EAC<br>CSA                                                                                                                                |
| Standards                             | UL 508<br>CSA C22.2 No 14<br>EN/IEC 61810-1                                                                                                     |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)                                                                                                                      |
| Ambient air temperature for operation | -40...131 °F (-40...55 °C)                                                                                                                      |
| Vibration resistance                  | 3 gn +/- 1 mm 10...150 Hz)5 cycles in operation<br>4 gn +/- 1 mm 10...150 Hz)5 cycles not operating                                             |
| IP degree of protection               | IP40                                                                                                                                            |
| Shock resistance                      | 10 gn 11 ms) in operation EN/IEC 60068-2-27<br>10 gn 11 ms) not operating EN/IEC 60068-2-27                                                     |
| Pollution degree                      | 2                                                                                                                                               |

## Ordering and shipping details

|                   |                             |
|-------------------|-----------------------------|
| Category          | 21127-ZELIO ICE CUBE RELAYS |
| Discount Schedule | CP2                         |
| GTIN              | 3606480626883               |
| Returnability     | No                          |
| Country of origin | CN                          |

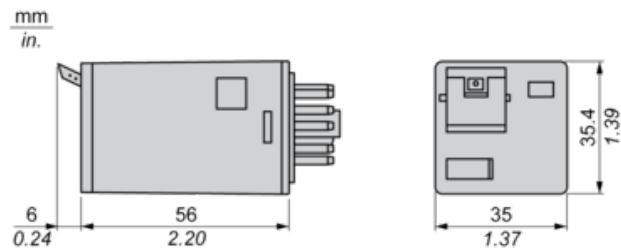
## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 1.42 in (3.6 cm)        |
| Package 1 Width              | 1.38 in (3.5 cm)        |
| Package 1 Length             | 2.72 in (6.9 cm)        |
| Package 1 Weight             | 3.17 oz (90 g)          |
| Unit Type of Package 2       | BB1                     |
| Number of Units in Package 2 | 10                      |
| Package 2 Height             | 1.57 in (4 cm)          |
| Package 2 Width              | 5.75 in (14.6 cm)       |
| Package 2 Length             | 7.80 in (19.8 cm)       |
| Package 2 Weight             | 34.32 oz (973 g)        |
| Unit Type of Package 3       | S02                     |
| Number of Units in Package 3 | 60                      |
| Package 3 Height             | 5.91 in (15 cm)         |
| Package 3 Width              | 11.81 in (30 cm)        |
| Package 3 Length             | 15.75 in (40 cm)        |
| Package 3 Weight             | 14.28 lb(US) (6.476 kg) |

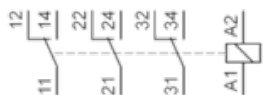
## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                                                                                                                                  |
| 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> |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                                                                                                      |
| REACH free of SVHC         | Yes                                                                                                                                                                                                                                                                                                                                                                    |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>                                                                                                                                                                                                                                                                         |
| Toxic heavy metal free     | Yes                                                                                                                                                                                                                                                                                                                                                                    |
| Mercury free               | Yes                                                                                                                                                                                                                                                                                                                                                                    |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                                                                                                                                                                                                                                                                 |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                                                                                                                                                                                                                                                                    |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                                                                                                                                                                                                                                                                          |

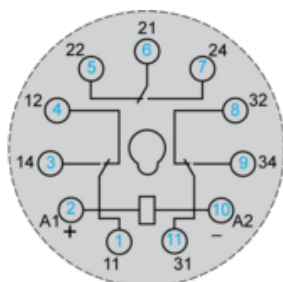
Dimensions



## Wiring Diagram



## Wiring Diagram

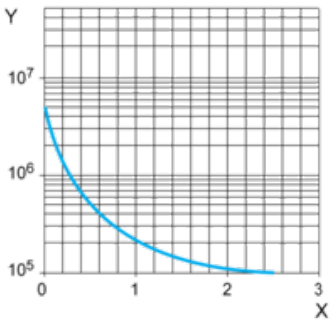


Symbols shown in blue correspond to Nema marking.

Electrical Durability of Contacts

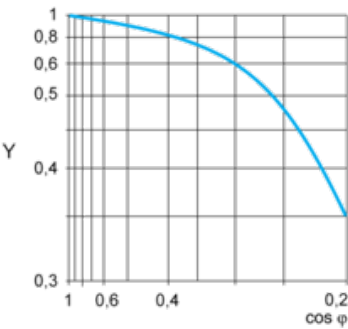
Durability (inductive load) = durability (resistive load) x reduction coefficient.

Resistive AC load



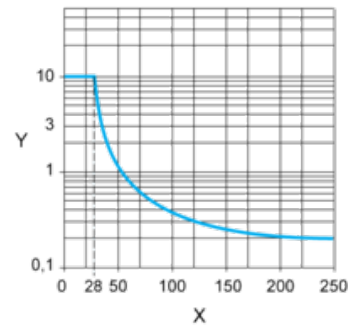
X Switching capacity (kVA)  
Y Durability (Number of operating cycles)

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.