# Product data sheet
## Characteristics

# RPM31BD
plug-in relay, Harmony electromechanical relays, 15A, 3CO, lockable test button, 24V DC




## Main

| | |
|---|---|
| Range of Product | Harmony Electromechanical Relays |
| Series name | Power |
| Product or Component Type | Plug-in relay |
| Device short name | RPM |
| Contacts type and composition | 3 C/O |
| [Uc] control circuit voltage | 24 V DC |
| [Ithe] conventional enclosed thermal current | 15 A -40…131 °F (-40…55 °C) |
| Status LED | Without |
| Control Type | Lockable test button |
| Utilisation coefficient | 20 % |

## Complementary

| | |
|---|---|
| Shape of pin | Flat |
| [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 | 15 A 277 V AC) UL<br>15 A 28 V DC) UL<br>15 A 250 V AC) NO IEC<br>15 A 28 V DC) NO IEC<br>7.5 A 250 V AC) NC IEC<br>7.5 A 28 V DC) NC IEC |
| Maximum switching voltage | 250 V IEC |
| Resistive load current | 15 A 250 V AC<br>15 A 28 V DC |
| Maximum switching capacity | 3750 VA<br>420 W |
| Minimum switching capacity | 170 mW 10 mA, 17 V |
| Operating rate | <= 1200 cycles/hour under load<br><= 18000 cycles/hour no-load |
| Mechanical durability | 10000000 cycles |
| Electrical durability | 100000 cycles resistive |
| Average coil consumption | 1.5 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 | 320 Ohm at 68 °F (20 °C) +/- 10 % |
| Rated operational voltage limits | 19.2...26.4 V DC |
| Protection category | RT I |
| Test levels | Level A group mounting |
| Operating position | Any position |
| Pollution degree | 3 |
| Safety reliability data | B10d = 100000 |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
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| | |
|---|---|
| Net Weight | 0.12 lb(US) (0.054 kg) |
| Device presentation | Complete product |

## Environment

| | |
|---|---|
| Dielectric strength | 1500 V AC between contacts with micro disconnection<br>2000 V AC between coil and contact with reinforced<br>2000 V AC between poles with basic |
| Standards | CSA C22.2 No 14<br>EN/IEC 61810-1<br>UL 508 |
| Product Certifications | EAC<br>CSA<br>UL |
| 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>5 gn +/- 1 mm 10…150 Hz)5 cycles not operating |
| Degree of protection (Housing only) | IP40 conforming to EN/IEC 60529 |
| Shock resistance | 15 gnin operation<br>30 gnnot operating |

## Ordering and shipping details

| | |
|---|---|
| Category | 21127-ZELIO ICE CUBE RELAYS |
| Discount Schedule | CP2 |
| GTIN | 3389119401975 |
| Returnability | Yes |
| Country of origin | CN |

## Packing Units

| | |
|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 1.85 in (4.7 cm) |
| Package 1 Width | 1.22 in (3.1 cm) |
| Package 1 Length | 1.10 in (2.8 cm) |
| Package 1 Weight | 2.05 oz (58 g) |
| Unit Type of Package 2 | CAR |
| Number of Units in Package 2 | 10 |
| Package 2 Height | 1.18 in (3 cm) |
| Package 2 Width | 4.13 in (10.5 cm) |
| Package 2 Length | 6.97 in (17.7 cm) |
| Package 2 Weight | 19.89 oz (564 g) |
| Unit Type of Package 3 | S01 |
| Number of Units in Package 3 | 80 |
| Package 3 Height | 5.91 in (15 cm) |
| Package 3 Width | 5.91 in (15 cm) |
| Package 3 Length | 15.75 in (40 cm) |
| Package 3 Weight | 10.44 lb(US) (4.737 kg) |

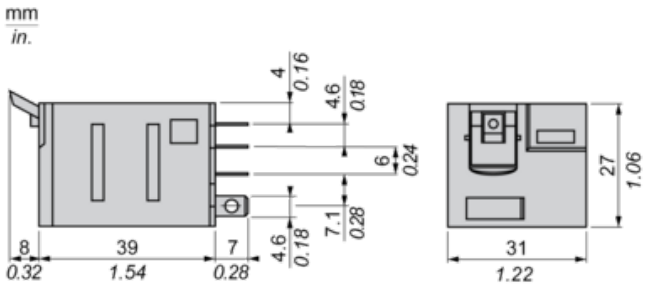
## Offer Sustainability

| | |
|---|---|
| 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 www.P65Warnings.ca.gov |
| REACh Regulation | REACh Declaration |
| REACh free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| 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. |

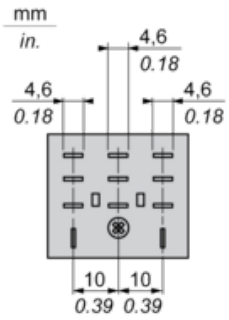
## Contractual warranty

| | |
|---|---|
| Warranty | 18 months |

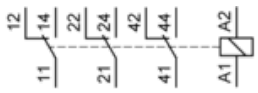
## Dimensions

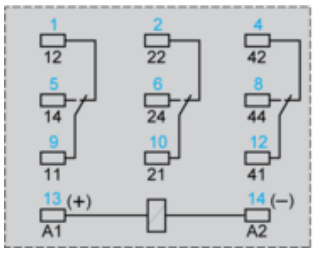



Pin Side View



## Wiring Diagram



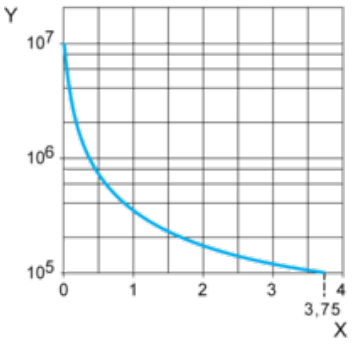




Symbols shown in blue correspond to Nema marking.

## Electrical Durability of Contacts

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

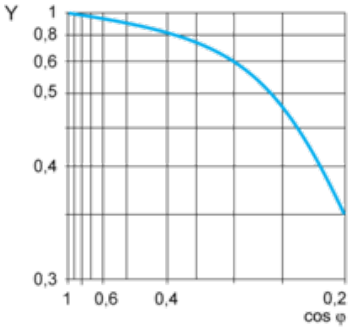
Resistive AC load




X Switching capacity (kVA)

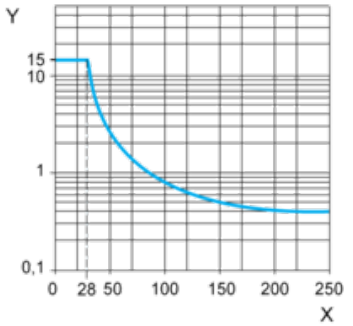
Y Durability (Number of operating cycles)

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.