

# Product data sheet

Specifications



plug-in relay, Harmony  
electromechanical relays, 15A, 3CO,  
lockable test button, 120V AC

RPM31F7

**Product availability:** Stock - Normally stocked in distribution facility

## Main

|                                              |                                  |
|----------------------------------------------|----------------------------------|
| Range of Product                             | Harmony Electromechanical Relays |
| Series name                                  | RPM series                       |
| Product or Component Type                    | Plug-in relay                    |
| Contacts type and composition                | 3 C/O                            |
| Relay Type                                   | Power relay                      |
| Status LED                                   | Without                          |
| [Uc] control circuit voltage                 | 120 V AC 50/60 Hz                |
| Minimum switching capacity                   | 170 mW 10 mA, 17 V               |
| Release time                                 | 20 ms at nominal voltage         |
| Ambient air temperature for operation        | -40...131 °F (-40...55 °C)       |
| [Ithe] conventional enclosed thermal current | 15 A -40...131 °F (-40...55 °C)  |

## Complementary

|                                     |                                                                                                                                           |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Control Type                        | Lockable test button                                                                                                                      |
| [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 |
| Degree of protection (Housing only) | IP40 conforming to IEC 60529                                                                                                              |
| Rated operational voltage limits    | 96...132 V AC                                                                                                                             |
| [Ui] rated insulation voltage       | 250 V IEC<br>300 V CSA<br>300 V UL                                                                                                        |
| Maximum switching voltage           | 250 V IEC                                                                                                                                 |
| Drop-out voltage threshold          | >= 0.15 Uc AC                                                                                                                             |
| Average resistance                  | 2880 Ohm at 68 °F (20 °C) +/- 15 %                                                                                                        |
| Maximum switching capacity          | 3750 VA<br>420 W                                                                                                                          |
| Load current                        | 15 A 250 V AC<br>15 A 28 V DC                                                                                                             |
| Operating time                      | 20 ms at nominal voltage                                                                                                                  |
| Mechanical durability               | 10000000 cycles                                                                                                                           |
| Electrical durability               | 100000 cycles resistive                                                                                                                   |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

|                                        |                                                                                                                                                 |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety reliability data                | B10d = 100000                                                                                                                                   |
| Operating rate                         | <= 1200 cycles/hour under load<br><= 18000 cycles/hour no-load                                                                                  |
| Utilisation coefficient                | 20 %                                                                                                                                            |
| 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 |
| [Uimp] rated impulse withstand voltage | 4 kV 1.2/50 µs                                                                                                                                  |
| Protection category                    | RT I                                                                                                                                            |
| Mounting Support                       | Plug-in                                                                                                                                         |
| Operating position                     | Any position                                                                                                                                    |
| Test levels                            | Level A group mounting                                                                                                                          |
| Device presentation                    | Complete product                                                                                                                                |
| Contacts material                      | AgNi                                                                                                                                            |
| Shape of pin                           | Flat (faston type)                                                                                                                              |
| Product Weight                         | 0.119 lb(US) (0.054 kg)                                                                                                                         |

## Environment

|                                     |                                                                                                     |
|-------------------------------------|-----------------------------------------------------------------------------------------------------|
| Average coil consumption in VA      | 1.7 60 Hz                                                                                           |
| Pollution degree                    | 3                                                                                                   |
| Standards                           | CSA C22.2 No 14<br>IEC 61810-1<br>UL 508                                                            |
| Product Certifications              | UL<br>EAC<br>CSA                                                                                    |
| Ambient Air Temperature for Storage | -40...185 °F (-40...85 °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 |
| Shock resistance                    | 15 gnin operation<br>30 gnnot operating                                                             |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US10CP221127  |
| Discount Schedule | 0CP2          |
| GTIN              | 3389119402002 |
| Returnability     | Yes           |
| Country of origin | CN            |

## Packing Units

|                        |                 |
|------------------------|-----------------|
| Unit Type of Package 1 | PCE             |
| Nbr. of units in pkg.  | 1               |
| Package 1 Height       | 1.9 in (4.7 cm) |
| Package 1 Width        | 1.2 in (3.1 cm) |
| Package 1 Length       | 1.1 in (2.8 cm) |
| Package weight(Lbs)    | 1.9 oz (55 g)   |

|                              |                          |
|------------------------------|--------------------------|
| Unit Type of Package 2       | BB1                      |
| Number of Units in Package 2 | 10                       |
| Package 2 Height             | 1.2 in (3 cm)            |
| Package 2 Width              | 4.1 in (10.5 cm)         |
| Package 2 Length             | 7.09 in (18 cm)          |
| Package 2 Weight             | 20.07 oz (569 g)         |
| Unit Type of Package 3       | S01                      |
| Number of Units in Package 3 | 80                       |
| Package 3 Height             | 5.9 in (15 cm)           |
| Package 3 Width              | 5.9 in (15 cm)           |
| Package 3 Length             | 15.7 in (40 cm)          |
| Package 3 Weight             | 10.783 lb(US) (4.891 kg) |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 23 kg CO2 eq.                                 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 0.5 kg CO2 eq.                                |
| Carbon footprint of the distribution phase [A4]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the installation phase [A5]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 23 kg CO2 eq.                                 |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0 kg CO2 eq.                                  |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |

## Use Better



### Materials and Substances

|                                        |                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                                                                                                                                                                                                                                                                                                           |
| Packaging without single use plastic   | Yes                                                                                                                                                                                                                                                                                                                                                                           |
| EU RoHS Directive                      | <a href="#">Compliant</a>                                                                                                                                                                                                                                                                                                                                                     |
| REACH Regulation                       | <a href="#">Free of Substances of Very High Concern above the threshold</a>                                                                                                                                                                                                                                                                                                   |
| California proposition 65              | <b>WARNING:</b> 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> |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again

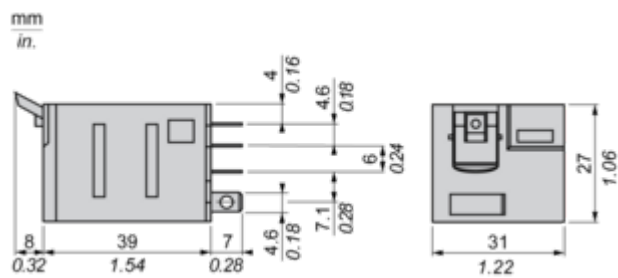


### Repack and remanufacture

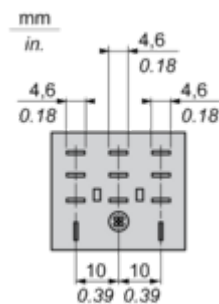
|                     |                                          |
|---------------------|------------------------------------------|
| Circularity Profile | No need of specific recycling operations |
| Take-back           | No                                       |

Dimensions Drawings

Dimensions

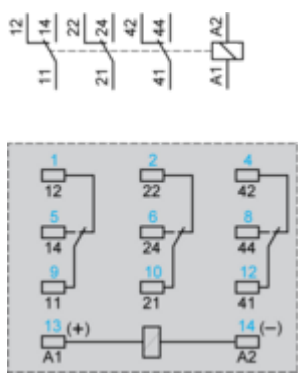


Pin Side View



Connections and Schema

Wiring Diagram

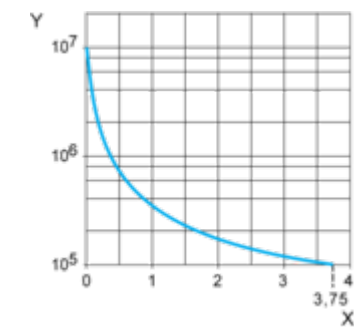


Symbols shown in blue correspond to Nema marking.

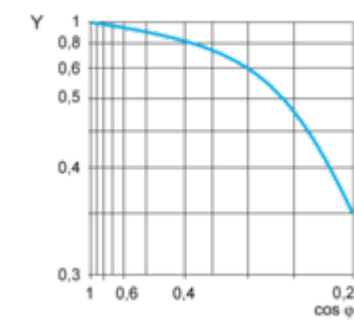
Performance Curves

Electrical Durability of Contacts

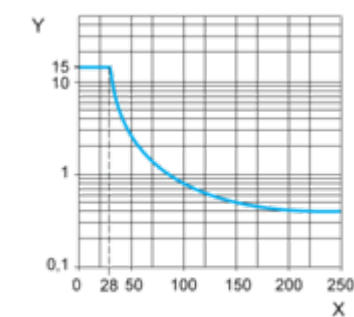
Durability (inductive load) = durability (resistive load) x reduction coefficient.  
Resistive AC load



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.

Technical Illustration

Dimensions

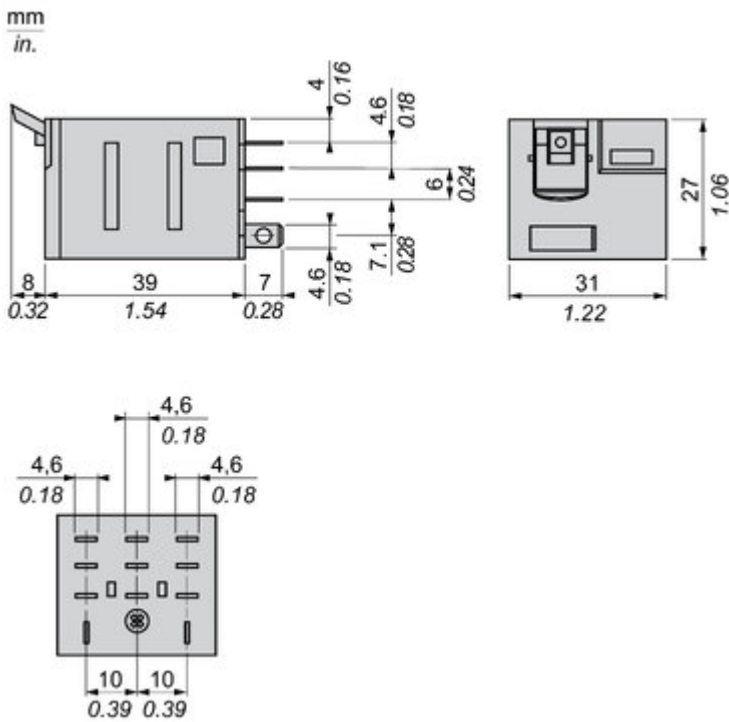


Image of product / Alternate images

Alternative

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