# Product datasheet

Specifications

Green Premium™

## plug-in relay, Harmony electromechanical relays, 15A, 2CO, lockable test button, 120V AC

RPM21F7

## 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** | 2 C/O |
| **[Uc] Control Circuit Voltage** | 120 V AC 50/60 Hz |
| **[Ithe] Conventional Enclosed Thermal Current** | 15 A at -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 conforming to IEC<br>300 V conforming to CSA<br>300 V conforming to UL |
| **[Uimp] Rated Impulse Withstand Voltage** | 4 kV during 1.2/50 µs |
| **Contacts Material** | AgNi |
| **[Ie] Rated Operational Current** | 15 A at 277 V (AC) conforming to UL<br>15 A at 28 V (DC) conforming to UL<br>15 A at 250 V (AC) NO conforming to IEC<br>15 A at 28 V (DC) NO conforming to IEC<br>7.5 A at 250 V (AC) NC conforming to IEC<br>7.5 A at 28 V (DC) NC conforming to IEC |
| **Maximum Switching Voltage** | 250 V conforming to IEC |
| **Resistive Load Current** | 15 A at 250 V AC<br>15 A at 28 V DC |
| **Maximum Switching Capacity** | 3750 VA<br>420 W |
| **Minimum Switching Capacity** | 170 mW at 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 for resistive load |
| **Average Coil Consumption In Va** | 1.1 at 60 Hz |
| **Drop-Out Voltage Threshold** | >= 0.15 Uc AC |

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

| | |
|---|---|
| **Operate Time** | 20 ms at nominal voltage |
| **Release Time** | 20 ms at nominal voltage |
| **Average Coil Resistance** | 4430 Ohm at 20 °C +/- 15 % |
| **Rated Operational Voltage Limits** | 96...132 V AC |
| **Protection Category** | RT I |
| **Test Levels** | Level A group mounting |
| **Operating Position** | Any position |
| **Pollution Degree** | 3 |
| **Safety Reliability Data** | B10d = 100000 |
| **Net Weight** | 0.036 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>IEC 61810-1<br>UL 508 |
| **Product Certifications** | UL<br>EAC<br>CSA |
| **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<br>5 gn, amplitude = +/- 1 mm (f = 10…150 Hz)5 cycles not operating |
| **Degree Of Protection (Housing Only)** | IP40 conforming to IEC 60529 |
| **Shock Resistance** | 15 gn for in operation<br>30 gn for not operating |

## Packing Units

| | |
|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 4.7 cm |
| **Package 1 Width** | 2.8 cm |
| **Package 1 Length** | 2.1 cm |
| **Package 1 Weight** | 39 g |
| **Unit Type Of Package 2** | CAR |
| **Number Of Units In Package 2** | 10 |
| **Package 2 Height** | 3 cm |
| **Package 2 Width** | 11.6 cm |
| **Package 2 Length** | 10.2 cm |
| **Package 2 Weight** | 394 g |
| **Unit Type Of Package 3** | S01 |
| **Number Of Units In Package 3** | 120 |

| | |
|---|---|
| **Package 3 Height** | 15 cm |
| **Package 3 Width** | 15 cm |
| **Package 3 Length** | 40 cm |
| **Package 3 Weight** | 4.953 kg |

## Contractual warranty

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

## 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-$CO_2$ 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

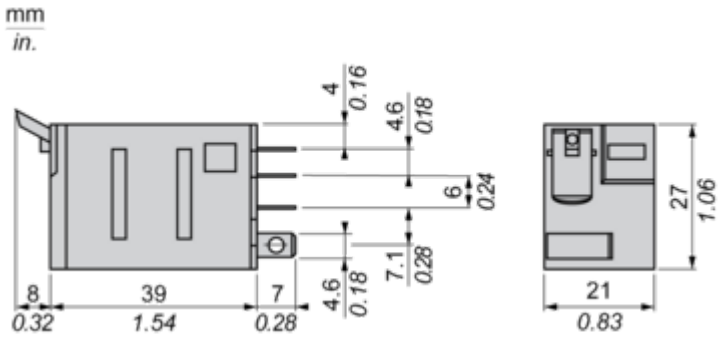
| | |
|---|---|
| Rohs Exemption Information | Yes |

## Certifications & Standards

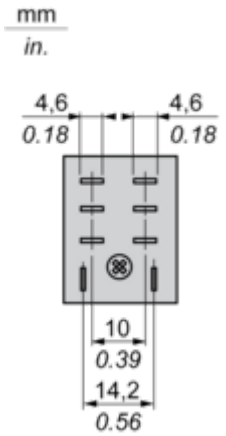
| | |
|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Pro-active compliance (Product out of EU RoHS legal scope)<br>EU RoHS Declaration |
| **China Rohs Regulation** | China RoHS declaration |
| **Environmental Disclosure** | Product Environmental Profile |
| **Weee** | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| **Circularity Profile** | No need of specific recycling operations |

## Dimensions Drawings

### Dimensions

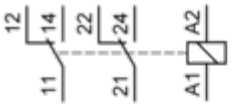


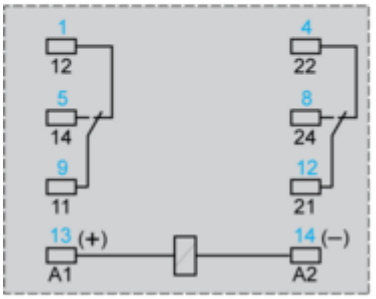

Pin Side View



## Connections and Schema

### Wiring Diagram



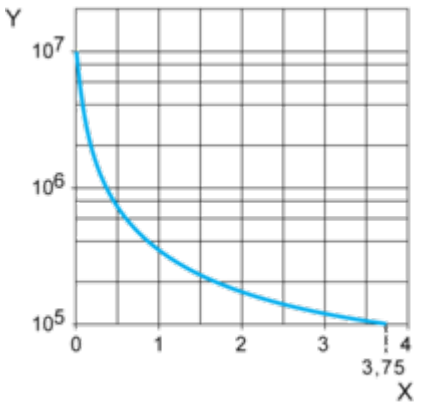




Symbols shown in blue correspond to Nema marking.

## Performance Curves

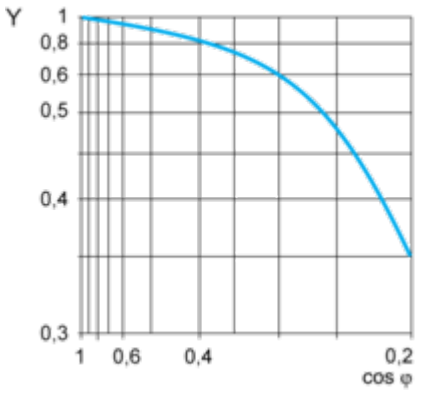
### Electrical Durability of Contacts

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



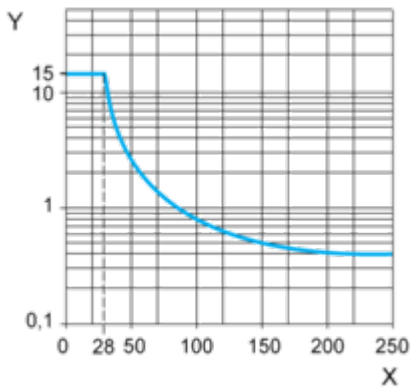

**X** Switching capacity (kVA)
**Y** Durability (Number of operating cycles)

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.