



# universal plug-in relay - Harmony RUM - 3 C/O - 60 V DC - 10 A - with LED

RUMC33ND

! Discontinued on: 1 Nov 2020



#### Main

| Range of product                             | Harmony Relay                |
|--|------------------------------|
| 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                 | 60 V DC                      |
| [Ithe] conventional enclosed thermal current | 10 A at -4055 °C             |
| Status LED                                   | With                         |
| Control type                                 | Without lockable test button |
| Utilisation coefficient                      | 20 %                         |

# Complementary

| Shape of pin                           | Cylindrical   |
|--|---|
| [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 (1.2/50 μs)  |
| Contacts material                      | AgNi  |
| [le] 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<br>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<br><= 1200 cycles/hour under load  |
| Mechanical durability                  | 5000000 cycles  |
| Electrical durability                  | 100000 cycles for resistive load  |

| 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             | 2790 Ohm at 20 °C +/- 15 %           |  |
| Rated operational voltage limits    | 4866 V DC                            |  |
| Protection category                 | RTI                                  |  |
|                                     | IXI I                                |  |
| Test levels                         | Level A group mounting               |  |
|                                     |                                      |  |
| Test levels                         | Level A group mounting               |  |
| Test levels Safety reliability data | Level A group mounting B10d = 100000 |  |

# **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                | EAC<br>UL<br>CSA   |  |
| Standards                             | EN/IEC 61810-1<br>CSA C22.2 No 14<br>UL 508  |  |
| Ambient air temperature for storage   | -4085 °C   |  |
| Ambient air temperature for operation | -4055 °C   |  |
| Vibration resistance                  | 3 gn, amplitude = +/- 1 mm (f = 10150 Hz)5 cycles in operation<br>4 gn, amplitude = +/- 1 mm (f = 10150 Hz)5 cycles not operating                    |  |
| IP degree of protection               | IP40   |  |
| Shock resistance                      | 10 gn (duration = 11 ms) for in operation conforming to EN/IEC 60068-2-27 10 gn (duration = 11 ms) for not operating conforming to EN/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             | 6.9 cm  |
| Package 1 Width              | 3.55 cm |
| Package 1 Length             | 3.5 cm  |
| Package 1 Weight             | 91.8 q  |



**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass 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.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

# Well-being performance



Reach Free Of Svhc



Rohs Exemption Information

Yes

#### **Certifications & Standards**

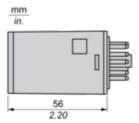
| Eu Rohs Directive        | Pro-active compliance (Product out of EU RoHS legal scope) |
|--------------------------|--|
|                          | EU RoHS Declaration  |
| China Rohs Regulation    | China RoHS declaration                                     |
| Environmental Disclosure | Product Environmental Profile                              |
| Circularity Profile      | No need of specific recycling operations                   |

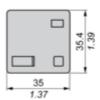
# **Product datasheet**

# **RUMC33ND**

# **Dimensions Drawings**

#### **Dimensions**





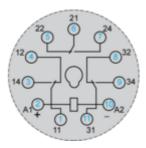
# **Product datasheet**

#### **RUMC33ND**

Connections and Schema

Wiring Diagram

#### Wiring Diagram



Symbols shown in blue correspond to Nema marking.

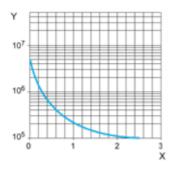
# **Product datasheet**

#### **RUMC33ND**

#### Performance Curves

#### **Electrical Durability of Contacts**

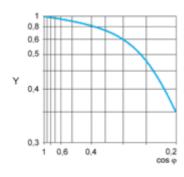
Durability (inductive load) = durability (resistive load) x reduction coefficient. Resistive AC load



X Switching capacity (kVA)

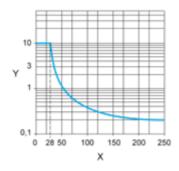
Y Durability (Number of operating cycles)

Reduction coefficient for inductive AC load (depending on power factor  $\cos \varphi$ )



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.