



## 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                 | 120 V AC                         |
| [Ithe] conventional enclosed thermal current | 10 A at -40...55 °C              |
| Status LED                                   | With                             |
| Control type                                 | 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                                                                                                                                                                                                                                                                                                                                     |
| [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 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 VA         | 3 at 60 Hz                                                                                                                                                                                                                                                                                                                               |
| Drop-out voltage threshold             | >= 0.15 Uc AC                                                                                                                                                                                                                                                                                                                            |
| Operate time                           | 20 ms at nominal voltage                                                                                                                                                                                                                                                                                                                 |
| Release time                           | 20 ms at nominal voltage                                                                                                                                                                                                                                                                                                                 |
| Average coil resistance                | 1700 Ohm at 20 °C +/- 15 %                                                                                                                                                                                                                                                                                                               |
| Rated operational voltage limits       | 96...132 V AC                                                                                                                                                                                                                                                                                                                            |
| Protection category                    | RT I                                                                                                                                                                                                                                                                                                                                     |
| Test levels                            | Level A group mounting                                                                                                                                                                                                                                                                                                                   |
| Safety reliability data                | B10d = 100000                                                                                                                                                                                                                                                                                                                            |
| Operating position                     | Any position                                                                                                                                                                                                                                                                                                                             |

|                     |                  |
|---------------------|------------------|
| Net weight          | 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                | EAC<br>UL<br>CSA                                                                                                                                        |
| Standards                             | EN/IEC 61810-1<br>CSA C22.2 No 14<br>UL 508                                                                                                             |
| 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>4 gn, amplitude = +/- 1 mm (f = 10...150 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<br>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 Weight             | 91 g     |
| Package 1 Height             | 3.6 cm   |
| Package 1 width              | 3.5 cm   |
| Package 1 Length             | 6.9 cm   |
| Unit Type of Package 2       | BB1      |
| Number of Units in Package 2 | 10       |
| Package 2 Weight             | 982 g    |
| Package 2 Height             | 4 cm     |
| Package 2 width              | 14.6 cm  |
| Package 2 Length             | 20 cm    |
| Unit Type of Package 3       | S02      |
| Number of Units in Package 3 | 60       |
| Package 3 Weight             | 6.404 kg |
| Package 3 Height             | 15 cm    |
| Package 3 width              | 30 cm    |
| Package 3 Length             | 40 cm    |

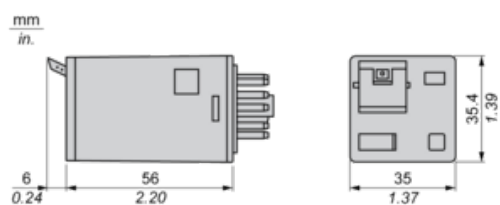
## Offer Sustainability

|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                |
| 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                                                                                                                                                                                  |
| RoHS exemption information |  <a href="#">Yes</a>                                                                              |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>                                                           |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a>                                                    |

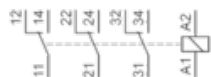
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Dimensions

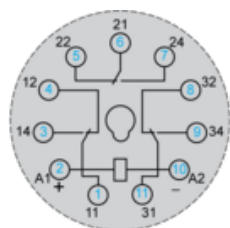
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## Wiring Diagram



## Wiring Diagram

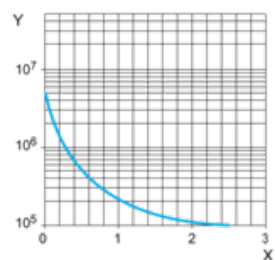


Symbols shown in blue correspond to Nema marking.

## Electrical Durability of Contacts

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

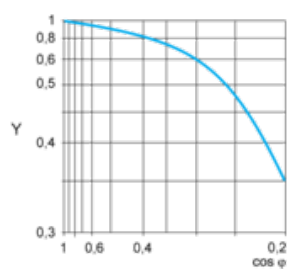
Resistive AC load



X Switching capacity (kVA)

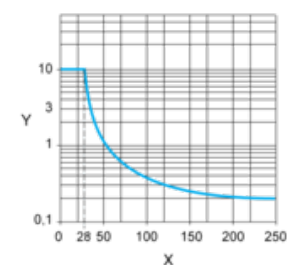
Y Durability (Number of operating cycles)

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



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.