

# Product data sheet

Specifications



## Harmony, Modular 1-phase voltage control relay, 5 A, 1 CO, 65...260 V AC/DC

RM17UAS15

Product availability : Stock - Normally stocked in distribution facility

### Main

|                               |   |
|-------------------------------|---|
| Range of Product              | Harmony Control Relays  |
| Product or Component Type     | Voltage control relay   |
| Relay Type                    | Voltage control relay   |
| Product Specific Application  | For single-phase and DC supply  |
| Relay name                    | RM17UAS   |
| Relay monitored parameters    | Overvoltage or undervoltage detection<br>Self-powered   |
| Time delay                    | Adjustable 0.1...10 s, 0 + 10 % on crossing the threshold   |
| Switching capacity in VA      | 1250 VA   |
| Minimum switching current     | 10 mA 5 V DC  |
| Maximum switching current     | 5 A AC/DC   |
| Power consumption in VA       | 0...3 VA AC   |
| Measurement range             | 65...260 V voltage AC 50/60 Hz<br>65...260 V voltage DC   |
| Utilisation category          | AC-12 IEC 60947-5-1<br>AC-13 IEC 60947-5-1<br>AC-14 IEC 60947-5-1<br>AC-15 IEC 60947-5-1<br>DC-12 IEC 60947-5-1<br>DC-13 IEC 60947-5-1<br>DC-14 IEC 60947-5-1 |
| Contacts type and composition | 1 C/O   |

### Complementary

|                                |                                     |
|--------------------------------|-------------------------------------|
| Reset time                     | 1500 ms time delay                  |
| Maximum switching voltage      | 250 V AC/DC                         |
| [Us] Rated Supply Voltage      | 110...240 V AC/DC 50/60 Hz +/- 10 % |
| Supply voltage limits          | 50...270 V AC/DC                    |
| Maximum power consumption in W | 1 W DC                              |
| Immunity to microbreaks        | 20 ms                               |
| Control circuit frequency      | 50...60 Hz +/- 10 %                 |
| Output contacts                | 1 C/O                               |

|                               |  |
|-------------------------------|--|
| Nominal output current        | 5 A  |
| Maximum measuring cycle       | 150 ms measurement cycle as true rms value   |
| Hysteresis                    | 5...20 % threshold setting   |
| Delay at power up             | 1000 ms DC<br>500 ms AC  |
| Measurement accuracy          | +/- 10 % of the full scale value   |
| Repeat accuracy               | +/- 0.5 % input and measurement circuit<br>+/- 1 % time delay  |
| Measurement error             | < 1 % over the whole range with voltage variation<br>0.2 %/°C with temperature variation   |
| Polarity                      | Non reversible polarity on DC supply   |
| Quality labels                | CE   |
| Overvoltage category          | III IEC 60664-1  |
| Insulation resistance         | > 500 MOhm 500 V DC IEC 60255-5<br>> 500 MOhm 500 V DC IEC 60664-1   |
| [Ui] rated insulation voltage | 250 V IEC 60664-1<br>400 V IEC 60664-1   |
| Operating position            | Any position without derating  |
| Connections - terminals       | Screw terminals, 1 x 0.5...1 x 4 mm² AWG 20...AWG 11) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm² AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...2 x 2.5 mm² AWG 24...AWG 12) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm² AWG 24...AWG 16) flexible with cable end |
| Tightening torque             | 5.31...8.85 lbf.in (0.6...1 N.m) IEC 60947-1   |
| Housing material              | Self-extinguishing plastic   |
| Local signalling              | for power ON LED (green)<br>for relay ON LED (yellow)  |
| Mounting support              | 35 mm symmetrical DIN rail conforming to EN/IEC 60715  |
| Electrical durability         | 100000 cycles  |
| Mechanical durability         | 30000000 cycles  |
| Operating rate                | <= 360 operations/hour full load   |
| Width                         | 0.69 in (17.5 mm)  |
| Net Weight                    | 0.18 lb(US) (0.08 kg)  |
| Compatibility code            | RM17   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Electromagnetic compatibility         | Emission standard for industrial environments EN/IEC 61000-6-4<br>Emission standard for residential, commercial and light-industrial environments EN/IEC 61000-6-3<br>Immunity for industrial environments NF EN/IEC 61000-6-2 |
| Standards                             | EN/IEC 60255-6   |
| Product Certifications                | GL<br>UL<br>GOST<br>CSA<br>C-tick  |
| Directives                            | 89/336/EEC - electromagnetic compatibility<br>73/23/EEC - low voltage directive  |
| Ambient Air Temperature for Storage   | -40...158 °F (-40...70 °C)   |
| Ambient air temperature for operation | -4...122 °F (-20...50 °C)  |
| Relative humidity                     | 95 % 131 °F (55 °C) IEC 60068-2-30   |
| Vibration resistance                  | 0.35 mm 5...57.6 Hz)IEC 60068-2-6<br>1 gn 57.6...150 Hz)IEC 60255-21-1   |

|                            |  |
|----------------------------|--|
| Shock resistance           | 5 gn IEC 60068-2-27  |
| IP degree of protection    | IP20 IEC 60529 terminals)<br>IP30 IEC 60529 casing)                  |
| Pollution degree           | 3 IEC 60664-1  |
| Dielectric test voltage    | 2 kV AC 50 Hz, 1 min IEC 60255-5<br>2 kV AC 50 Hz, 1 min IEC 60664-1 |
| Non-dissipating shock wave | 4 kV IEC 60255-5<br>4 kV IEC 60664-1<br>4 kV IEC 61000-4-5           |

### Ordering and shipping details

|                   |                                      |
|-------------------|--------------------------------------|
| Category          | 22380-RELAYS-MEASUREMENT (RM17-RM35) |
| Discount Schedule | CP2                                  |
| GTIN              | 3389119405126                        |
| Returnability     | Yes                                  |
| Country of origin | ID                                   |

### Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 1.02 in (2.6 cm)        |
| Package 1 Width              | 3.15 in (8.0 cm)        |
| Package 1 Length             | 3.70 in (9.4 cm)        |
| Package 1 Weight             | 3.17 oz (90.0 g)        |
| Unit Type of Package 2       | S02                     |
| Number of Units in Package 2 | 48                      |
| Package 2 Height             | 5.91 in (15.0 cm)       |
| Package 2 Width              | 11.81 in (30.0 cm)      |
| Package 2 Length             | 15.75 in (40.0 cm)      |
| Package 2 Weight             | 10.60 lb(US) (4.809 kg) |

### Offer Sustainability

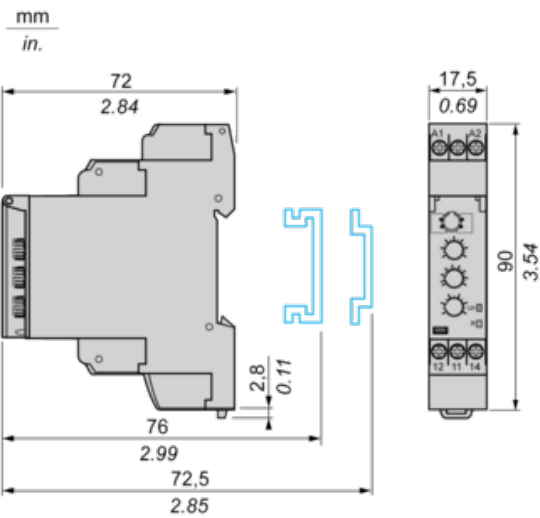
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)<br><a href="#">EU RoHS Declaration</a>   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a>  |
| RoHS exemption information | <a href="#">Yes</a>   |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile        | <a href="#">End of Life Information</a>   |
| 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 |
|----------|-----------|

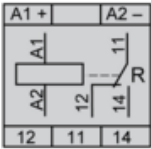
Single-Phase and DC Voltage Control Relays

Dimensions and Mounting

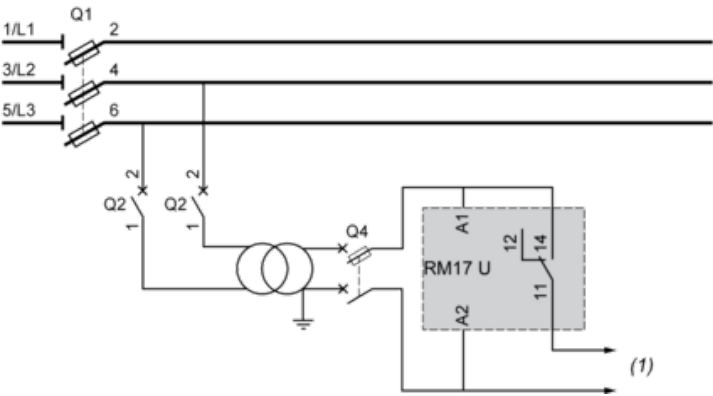


Single-Phase and DC Voltage Control Relays

Wiring Diagram



Application Scheme

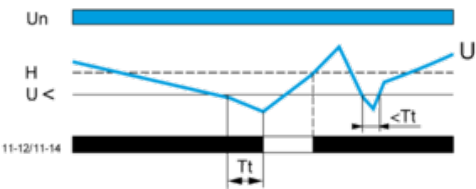


(1) To sensitive loads

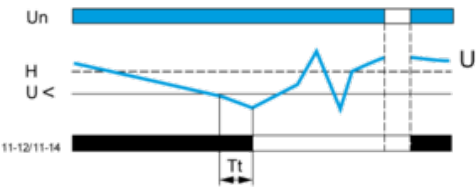
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

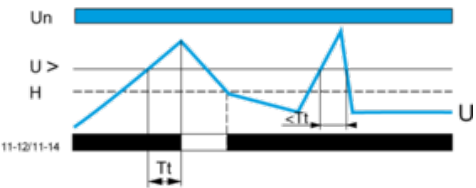


With memory ("Memory" mode)

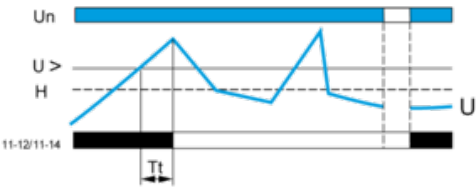


Overvoltage Control

Without memory ("No Memory" mode)



With memory ("Memory" mode)



Legend

$T_t$  Time delay after crossing of threshold

$U_n$  Nominal supply voltage

$U$  Monitored supply voltage

$H$  Hysteresis

$U >$  Overvoltage threshold

$U <$  Undervoltage threshold

11-12, 11-14 Output relay connections (refer to Connections and Schema)

Relay status: black color = energized.

**NOTE:** In "Memory" mode, the relay opens when crossing of the threshold is detected and then stays in that position. The power supply voltage must be switched off to reset the product.

Recommended replacement(s)