

# RM35UA13MW

Harmony, Modular 1-phase voltage control relay, 5 A, 2 CO, range 15..600 V, 24..240 V AC/DC



## Main

|                               |   |
|-------------------------------|---|
| Range of Product              | Harmony Control Relays  |
| Product or Component Type     | Voltage control relay   |
| Relay Type                    | Multifunction voltage control relay   |
| Relay name                    | RM35UA  |
| Relay monitored parameters    | Overvoltage or undervoltage detection   |
| Time delay                    | Adjustable 0.3...30 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...3.5 VA AC   |
| Measurement range             | 15...600 V voltage  |
| 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 | 2 C/O   |

## Complementary

|                                |   |
|--------------------------------|---|
| Reset time                     | 1500 ms time delay  |
| Maximum switching voltage      | 250 V AC/DC   |
| [Us] Rated Supply Voltage      | 24...240 V AC/DC 50/60 Hz +/- 10 %  |
| Supply voltage limits          | 20.4...264 V AC/DC  |
| Maximum power consumption in W | 0.6 W DC  |
| Immunity to microbreaks        | 10 ms   |
| Control circuit frequency      | 40...70 Hz +/- 10 %   |
| Resistance across terminals    | 150 MOhm E1-M terminals<br>300 MOhm E2-M terminals<br>600 mOhm E3-M terminals                 |
| Output contacts                | 2 C/O   |
| Nominal output current         | 5 A   |
| Maximum measuring cycle        | 30 ms measurement cycle as true rms value   |
| Hysteresis                     | 5...50 % threshold setting  |
| Delay at power up              | 600 ms  |
| Measurement accuracy           | +/- 10 % of the full scale value  |
| Repeat accuracy                | +/- 0.5 % input and measurement circuit<br>+/- 2 % time delay                                 |
| Measurement error              | +/- 0.05 %/°C with temperature variation<br>< 1 % over the whole range with voltage variation |
| Polarity                       | Non reversible polarity on DC supply  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                               |  |
|-------------------------------|--|
| Sensitivity scale             | 15...150 V E1-M terminals<br>30...300 V E2-M terminals<br>60...600 V E3-M terminals  |
| Threshold setting             | 10...100 %   |
| Quality labels                | CE   |
| Overvoltage category          | III IEC 60664-1  |
| Insulation resistance         | > 500 MOhm 500 V DC between supply and relay output IEC 60255-5<br>> 500 MOhm 500 V DC between measurement and relay output IEC 60664-1<br>> 1 MOhm 500 V DC between supply and measurement IEC 60255-5<br>> 500 MOhm 500 V DC between supply and relay output IEC 60664-1<br>> 500 MOhm 500 V DC between measurement and relay output IEC 60255-5<br>> 1 MOhm 500 V DC between supply and measurement IEC 60664-1 |
| [Ui] rated insulation voltage | 250 V IEC 60664-1<br>600 V IEC 60664-1   |
| Operating voltage tolerance   | - 15 % + 10 % Un   |
| Operating position            | Any position without derating  |
| Connections - terminals       | Screw terminals, 1 x 0.5...1 x 4 mm <sup>2</sup> AWG 20...AWG 11) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...2 x 2.5 mm <sup>2</sup> AWG 24...AWG 12) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> 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   |
| Safety reliability data       | B10d = 290000<br>MTTFd = 308.2 years   |
| Width                         | 1.38 in (35 mm)  |
| Net Weight                    | 0.18 lb(US) (0.08 kg)  |
| Compatibility code            | RM3  |

## 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                | GOST<br>UL<br>GL<br>C-tick<br>CSA  |
| Directives                            | 73/23/EEC - low voltage directive<br>89/336/EEC - electromagnetic compatibility  |
| 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                  | 3389119405317                          |
| Nbr. of units in pkg. | 1                                      |
| Package weight(Lbs)   | 4.83 oz (137 g)                        |
| Returnability         | Yes                                    |
| Country of origin     | ID                                     |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 3.03 in (7.7 cm)        |
| Package 1 width              | 3.82 in (9.7 cm)        |
| Package 1 Length             | 1.85 in (4.7 cm)        |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 48                      |
| Package 2 Weight             | 16.07 lb(US) (7.289 kg) |
| Package 2 Height             | 11.81 in (30 cm)        |
| Package 2 width              | 11.81 in (30 cm)        |
| Package 2 Length             | 15.75 in (40 cm)        |

## Offer Sustainability

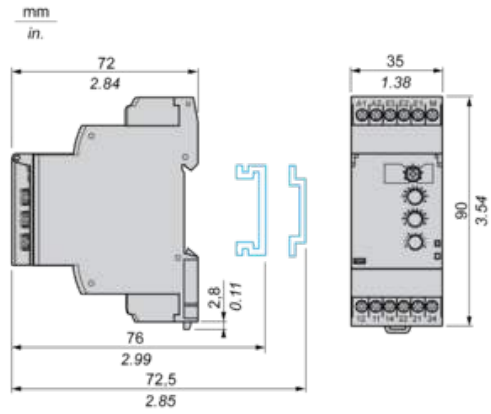
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer 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) <a href="#">EU RoHS Declaration</a>  |
| 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>   |
| 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 |
|----------|-----------|

## Multifunction Voltage Control Relays

### Dimensions and Mounting

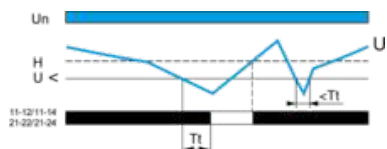




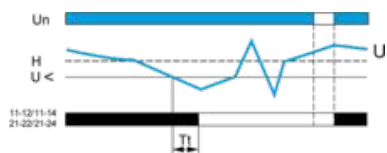
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

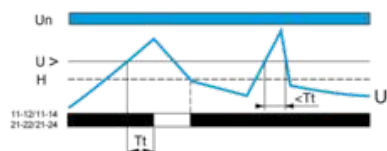


With memory ("Memory" mode)

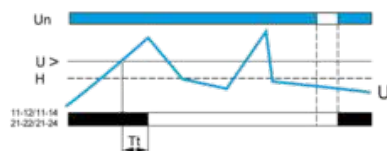


Overvoltage Control

Without memory ("No Memory" mode)



With memory ("Memory" mode)



Legend

Tt Time delay after crossing of threshold

Un Nominal supply voltage

U Monitored supply voltage

H Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

11-12/11-14, 21-22/21-24 Output relay connections

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.