# Product data sheet

Specifications




## current control relay, Harmony Control Relays, 5A, 2CO, overcurrent or undercurrent detection, 0.15...15A, 24...240V AC DC

RM35JA32MW

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Harmony Control Relays |
| **Relay Type** | Current control relay |
| **Product or Component Type** | Current control relay |
| **Relay name** | RM35JA |
| **Relay monitored parameters** | Overcurrent or undercurrent detection |
| **Control Type** | Without test button |
| **Contacts type and composition** | 2 C/O |

## Complementary

| | |
|---|---|
| **[Us] rated supply voltage** | 24...240 V AC/DC 50/60 Hz, non self-powered |
| **Supply voltage limits** | 20.4…264 V AC/DC |
| **Maximum power consumption in VA** | 3.5 VA AC |
| **Maximum power consumption in W** | 0.6 W DC |
| **Measurement range** | 150 mA...15 A current AC/DC |
| **Maximum measuring cycle** | 30 ms measurement cycle as true rms value |
| **Hysteresis** | 5…50 % threshold setting |
| **Repeat accuracy** | +/- 0.5 % input and measurement circuit<br>+/- 2 % time delay |
| **Measurement error** | 0.05 %/°C with temperature variation<br>1 by volt over the whole range with voltage variation |
| **Time delay type** | Adjustable 0.3...30 s, 0 + 10 % Tt- time delay upon fault<br>Adjustable 1...20 s, 0 + 10 % Ti- inhibition time delay upon startup |
| **Setting accuracy of time delay** | 10 % |
| **Reset time** | 1500 ms time delay |
| **Power on Delay** | 300 ms |
| **Output contacts** | 2 C/O |
| **nominal output current** | 5 A |
| **Maximum switching voltage** | 250 V AC/DC |
| **Switching capacity in VA** | 1250 VA |
| **Minimum switching current** | 10 mA 5 V DC |
| **Maximum switching current** | 5 A AC/DC |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

| | |
|---|---|
| **Electrical durability** | 100000 cycles |
| **Mechanical durability** | 30000000 cycles |
| **operating voltage tolerance** | - 15 % + 10 % Un |
| **Control circuit frequency** | 40...70 Hz +/- 10 % |
| **Resistance across terminals** | 0.005 Ohm E3-M terminals<br>0.015 Ohm E2-M terminals<br>0.05 Ohm E1-M terminals |
| **Measurement accuracy** | +/- 10 % of the full scale value |
| **Threshold setting** | 10...100 % |
| **Insulation** | Between supply and measurement |
| **Contacts material** | Cadmium free |

## Environment

| | |
|---|---|
| **Electromagnetic compatibility** | Emission standard for industrial environments conforming to IEC 61000-6-4<br>Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3<br>Immunity for industrial environments conforming to NF EN/IEC 61000-6-2 |
| **Standards** | IEC 60255-6 |
| **Product Certifications** | GL<br>UL<br>GOST<br>C-tick<br>CSA |
| **Marking** | CE : EMC 89/336/EEC<br>CE : 73/23/EEC |
| **Ambient Air Temperature for Storage** | -40…158 °F (-40…70 °C)<br>-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 |
| **IP degree of protection** | IP20 IEC 60529 terminals)<br>IP30 IEC 60529 casing) |
| **Pollution degree** | 3 IEC 60664-1 |
| **Overvoltage category** | III conforming to IEC 60664-1 |
| **Dielectric test voltage** | 2 kV AC 50 Hz, 1 min IEC 60255-5 |
| **Insulation resistance** | > 500 MOhm 500 V DC between supply and relay output IEC 60255-5 |
| **[Ui] rated insulation voltage** | 250 V IEC 60664-1 |
| **Operating position** | Any position without derating |
| **Connections - terminals** | Screw terminals, 1 x 0.5...1 x 4 mm² 20 AWG...11 AWG) solid without cable end<br>Screw terminals, 2 x 0.5...2 x 2.5 mm² 20 AWG...14 AWG) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm² 24 AWG...12 AWG) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm² 24 AWG...16 AWG) flexible with cable end |
| **Tightening torque** | 5.3…8.9 lbf.in (0.6…1 N.m) IEC 60947-1 |
| **Housing material** | Polycarbonate |
| **Local signalling** | LED (green) for power ON<br>LED (yellow) for relay ON |
| **Mounting support** | 35 mm symmetrical DIN rail conforming to IEC 60715 |
| **Reliability data** | MTTFd = 296.8 years<br>B10d = 270000 |

| | |
|---|---|
| **Height** | 3.5 in (90 mm)<br>3.5 in (88.9 mm) |
| **Width** | 1.4 in (35 mm)<br>1.4 in (35.6 mm) |
| **Depth** | 2.8 in (72 mm)<br>2.8 in (71.1 mm) |
| **Net Weight** | 0.29 lb(US) (0.13 kg)<br>0.29 lb(US) (0.13 kg) |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US10CP222380 |
| **Discount Schedule** | 0CP2 |
| **GTIN** | 3389119405225 |
| **Returnability** | Yes |
| **Country of origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 1.772 in (4.500 cm) |
| **Package 1 Width** | 3.150 in (8.000 cm) |
| **Package 1 Length** | 3.740 in (9.500 cm) |
| **Package weight(Lbs)** | 4.797 oz (136.000 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 48 |
| **Package 2 Height** | 11.811 in (30.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 16.074 lb(US) (7.291 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **58 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **3 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **55 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.1 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| SCIP Number | **5e3fdf99-611b-4d07-ad17-6eba84ab488b** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| 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 www.P65Warnings.ca.gov** |

## Use Again

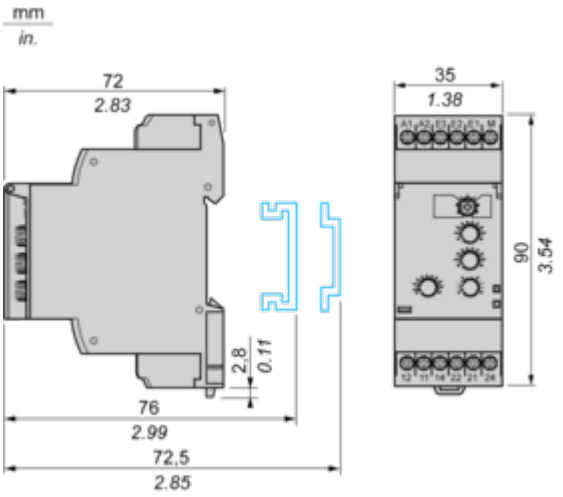
### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **8** |
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |

Dimensions Drawings

## Current Control Relays

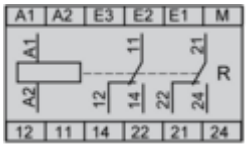
### Dimensions and Mounting



Connections and Schema

## Current Control Relays

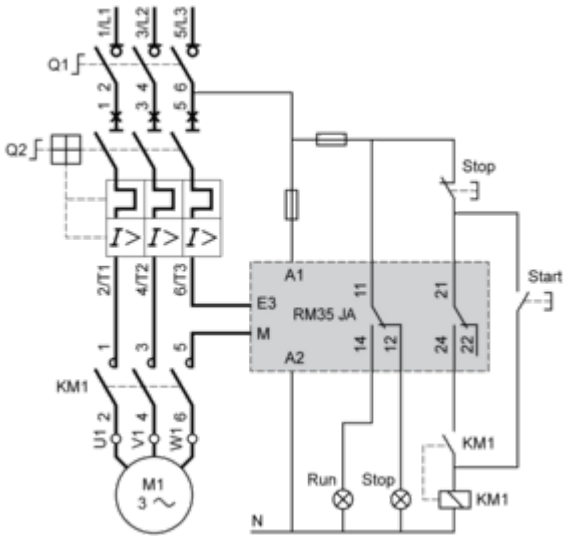
### Wiring Diagram



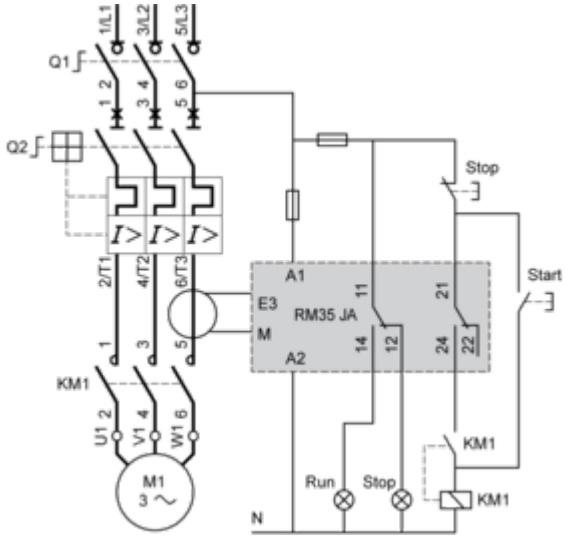
## Application Schemes

### Example: Detection of Jamming on a Crusher (Overcurrent Function)

Current measured ≤ 15 A




Current measured > 15 A

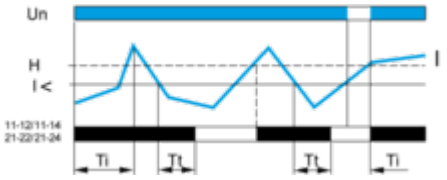


Technical Description

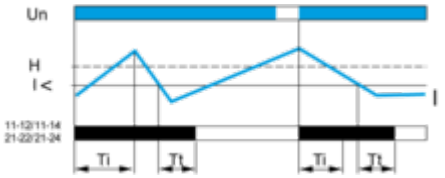
## Function Diagrams

### Undercurrent Detection

**Without memory ("No Memory" mode)**

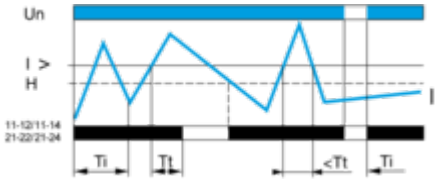



**With memory ("Memory" mode)**

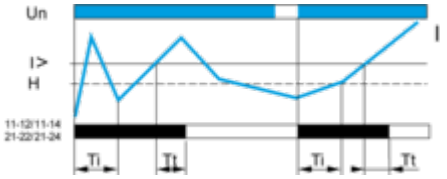



### Overcurrent Detection

**Without memory ("No Memory" mode)**




**With memory ("Memory" mode)**




### Legend

**Ti** Starting inhibition time delay
**Tt** Time delay after crossing of threshold
**Un** Supply voltage
**I** Monitored current
**H** Hysteresis
**I>** Overcurrent threshold
**I<** Undercurrent 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.

Image of product / Alternate images

**Alternative**






12
11
14
22
21
24


A1
A2
E3
E2
E1
M
I %
Hysteresis
Schneider
12
11
14
22
21
24

