Product data sheet

Specifications



current control relay, Harmony Control Relays, 5A, 2CO, 2...500mA, 24...240V AC DC

RM35JA31MW

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 and undercurrent control
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	2...500 mA AC/DC E2-M terminals
Maximum measuring cycle	30 ms measurement cycle as true rms value
Hysteresis	5…50 % threshold setting
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 2 % time delay
Measurement error	0.05 %/°C with temperature variation 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 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
Switching capacity in VA	1250 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles

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

operating voltage tolerance	- 15 % + 10 % Un
Control circuit frequency	40...70 Hz +/- 10 %
Resistance across terminals	1 Ohm E2-M terminals 5 Ohm E1-M terminals 0.2 Ohm E3-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 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Immunity for industrial environments conforming to NF EN/IEC 61000-6-2
Standards	IEC 60255-6
Product Certifications	GL CSA GOST UL C-tick
Marking	CE : EMC 89/336/EEC CE : 73/23/EEC
Ambient Air Temperature for Storage	-40…158 °F (-40…70 °C) -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) 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 Screw terminals, 2 x 0.5...2 x 2.5 mm² 20 AWG...14 AWG) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² 24 AWG...12 AWG) flexible with cable end 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 LED (yellow) for relay ON
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715
Reliability data	MTTFd = 296.8 years B10d = 270000
Height	3.5 in (90 mm) 3.5 in (88.9 mm)
Width	1.4 in (35 mm) 1.4 in (35.6 mm)

Depth	2.8 in (72 mm) 2.8 in (71.1 mm)
Net Weight	0.29 lb(US) (0.13 kg) 0.29 lb(US) (0.13 kg)

Ordering and shipping details

Category	US10CP222380
Discount Schedule	0CP2
GTIN	3389119405218
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	3.071 in (7.800 cm)
Package 1 Length	3.740 in (9.500 cm)
Package weight(Lbs)	4.868 oz (138.000 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	16.204 lb(US) (7.350 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	**42 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**2 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]	**40 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0 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

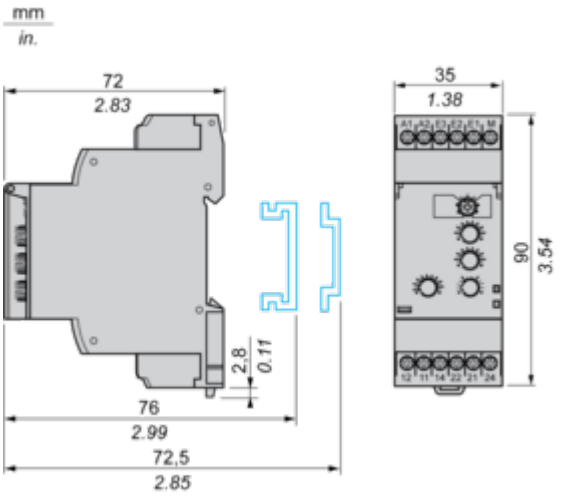
Repack and remanufacture

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

Dimensions Drawings

Current Control Relays

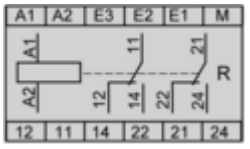
Dimensions and Mounting



Connections and Schema

Current Control Relays

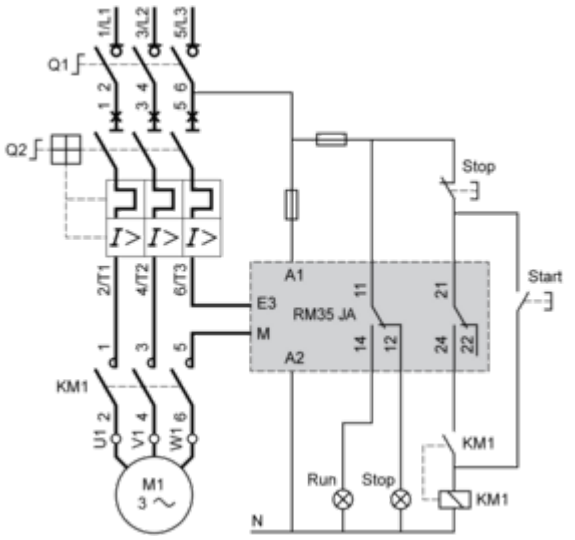
Wiring Diagram



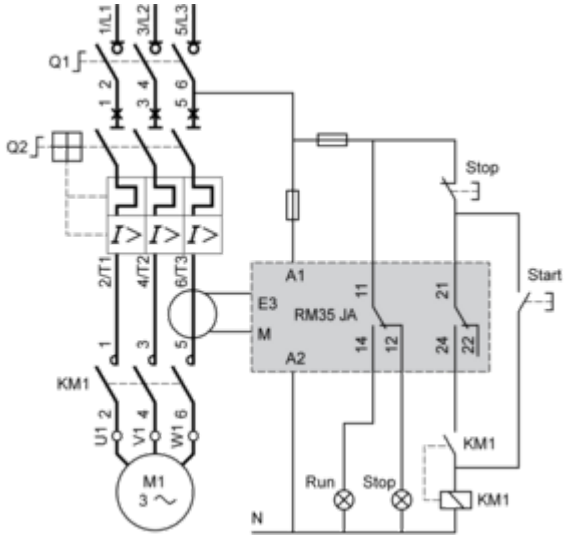
Application Schemes

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

Current measured ≤ 15 A



Current measured > 15 A

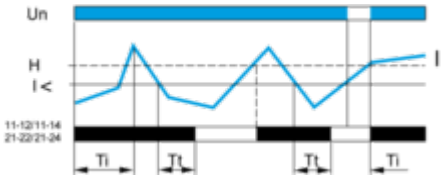


Technical Description

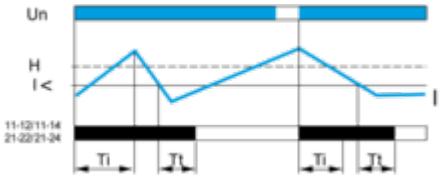
Function Diagrams

Undercurrent Detection

Without memory ("No Memory" mode)

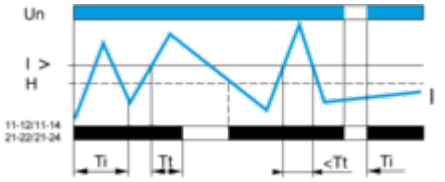


With memory ("Memory" mode)

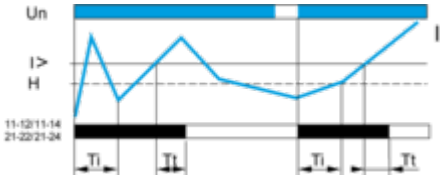


Overcurrent Detection

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

