

Product data sheet

Specifications



current control relay, Harmony Control Relays , 8A, 2CO, 24...240V AC DC

RM22JA21MR

Product availability: Non-Stock - Not 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	RM22JA
Relay monitored parameters	Overcurrent detection
Control Type	With 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
Maximum power consumption in W	1.5 W DC
Measurement range	4 mA...1 A current AC/DC 50/60 Hz
Maximum measuring cycle	100 ms measurement cycle as true rms value
Hysteresis	5...50 % adjustable threshold setting
Setting accuracy of the switching threshold	+/- 10 % of the full scale
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 0.2 % time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Time delay type	Without
Reset time	1500 ms at maximum voltage
Response time	<= 500 ms
Power on Delay	300 ms
Output contacts	2 C/O
nominal output current	8 A
Maximum switching voltage	250 V AC
Switching capacity in VA	2000 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	8 A AC
Electrical durability	100000 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

Mechanical durability	10000000 cycles
operating voltage tolerance	- 15 % + 10 % Un
Resistance across terminals	2.5 Ohm E1-M terminals 0.5 Ohm E2-M terminals 0.1 Ohm E3-M terminals
Threshold setting	10...100 %
Insulation	Between supply and measurement
Contacts material	Cadmium free

Environment

Electromagnetic compatibility	Immunity for residential, commercial and light-industrial environments conforming to IEC 61000-6-1 Immunity for industrial environments conforming to IEC 61000-6-2 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Emission standard for industrial environments conforming to IEC 61000-6-4 Surge immunity test - test level: 4 kV level 4 (common mode) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV level 4 (differential mode) conforming to IEC 61000-4-5
Standards	IEC 60255-1
Product Certifications	EAC CSA CE RCM CCC UL GL
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) 60 Hz -4...140 °F (-20...60 °C) 50 Hz
Relative humidity	93...97 % 77...131 °F (25...55 °C) IEC 60068-2-30
Vibration resistance	0.075 mm 10...58.1 Hz) not in operation IEC 60068-2-6 1 gn 10...58.1 Hz) not in operation IEC 60068-2-6 0.035 mm 58.1...150 Hz) in operation IEC 60068-2-6 0.5 gn 58.1...150 Hz) in operation IEC 60068-2-6
Shock resistance	15 gn 11 ms) not in operation IEC 60068-2-27 5 gn 11 ms) in operation IEC 60068-2-27
IP degree of protection	IP20 IEC 60529 terminals) IP40 IEC 60529 housing) IP50 IEC 60529 front panel)
Pollution degree	3 IEC 60664-1
Overvoltage category	III conforming to IEC 60664-1
Dielectric test voltage	2.5 kV AC 50 Hz, 1 min IEC 60255-27
Insulation resistance	> 100 MOhm 500 V DC IEC 60255-27
Connections - terminals	Screw terminals, 2 x 0.5...2 x 2.5 mm² 20 AWG...14 AWG) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² 24 AWG...16 AWG) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm² 20 AWG...12 AWG) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² 24 AWG...14 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 (yellow) for relay ON LED (green) for power ON
Mounting support	35 mm 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	0.9 in (22.5 mm) 0.9 in (22.9 mm)
Depth	2.9 in (73 mm) 2.9 in (73.7 mm)
Net Weight	0.24 lb(US) (0.11 kg) 0.24 lb(US) (0.11 kg)

Ordering and shipping details

Category	US10CP222380
Discount Schedule	0CP2
GTIN	3606480792281
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.024 in (2.600 cm)
Package 1 Width	3.228 in (8.200 cm)
Package 1 Length	3.740 in (9.500 cm)
Package weight(Lbs)	4.268 oz (121.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	11.656 lb(US) (5.287 kg)

Contractual warranty

Warranty (in months)	18
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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	44 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	3 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	41 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better

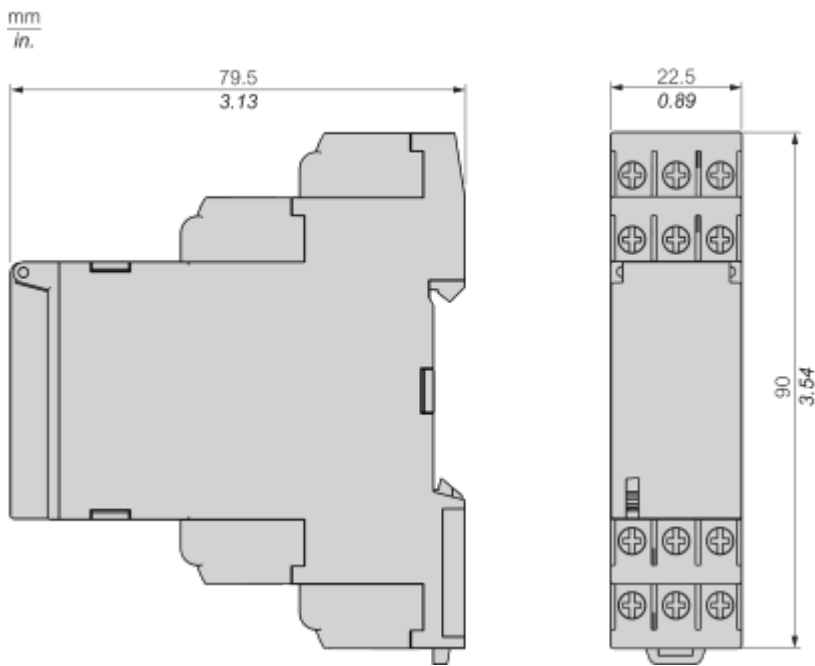
 Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	5e3fdf99-611b-4d07-ad17-6eba84ab488b
EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold
California proposition 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 %	18
Circularity Profile	End of Life Information
Take-back	No

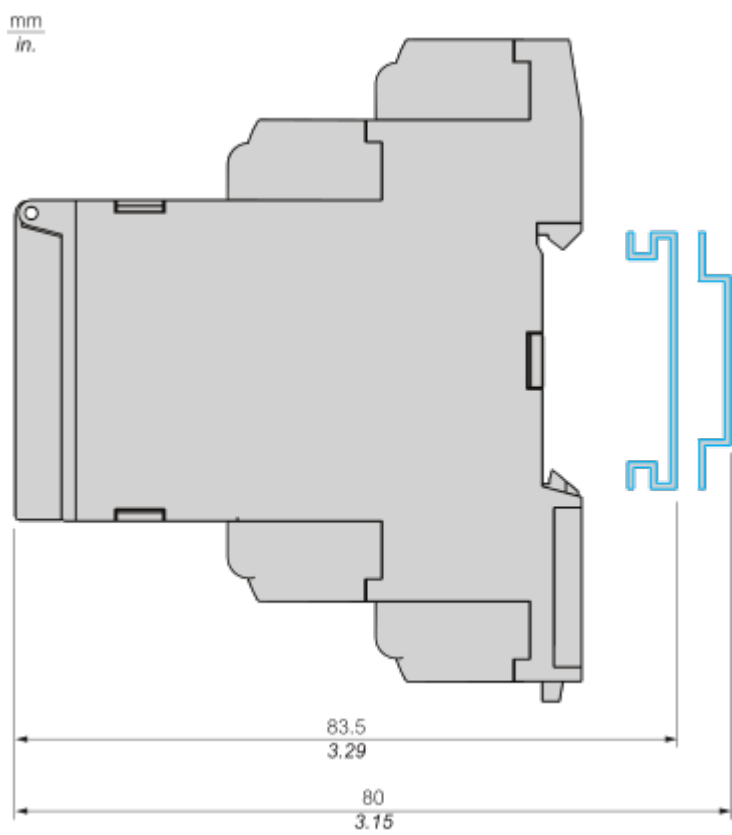
Dimensions Drawings

Dimensions



Mounting and Clearance

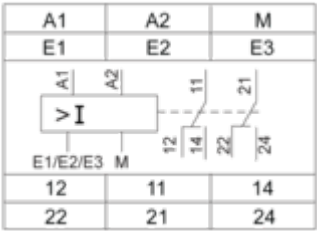
Rail Mounting



Connections and Schema

Overcurrent Control Relay

Wiring Diagram



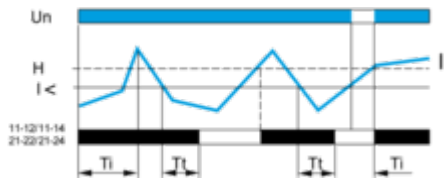
- A1,A2 : Supply voltage
- E1,E2,E3,M : Currents to be measured
- 11-14,12 : 1st C/O contact of output relay
- 21-24,22 : 2nd C/O contact of output relay

Technical Description

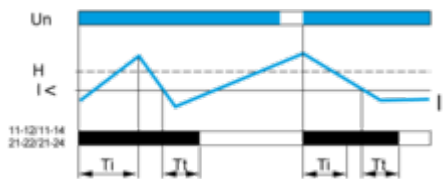
Function Diagrams

Undercurrent Detection

Without memory ("No Memory" mode)

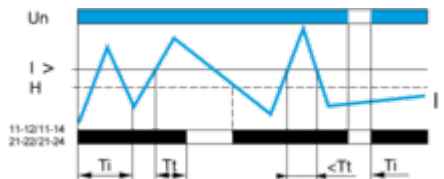


With memory ("Memory" mode)

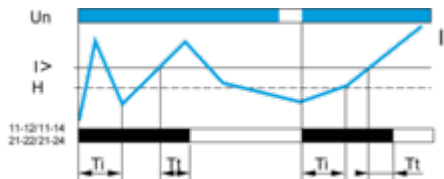


Overcurrent Detection

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.

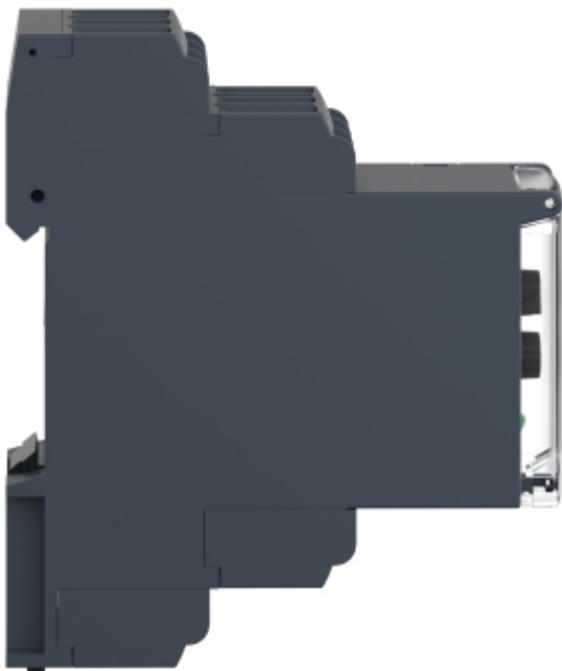
NOTE: In "Memory" mode, the relay opens when crossing of the threshold is detected and then stays in that position. The power supply voltage must be switched off to reset the product.

Image of product / Alternate images

Alternative







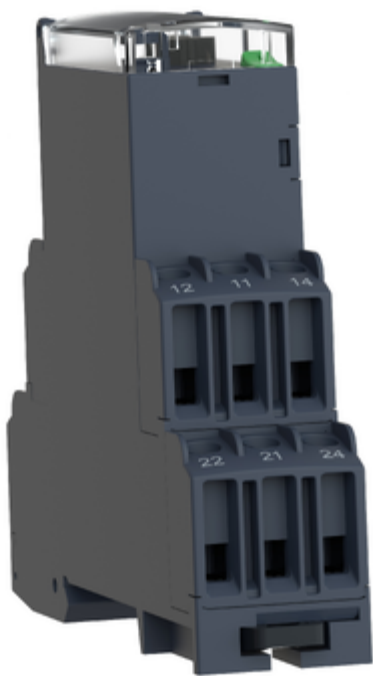


Image of product in real life situation

