Product data sheet

Specifications

Modular measurement and relay, Harmony relay, 5A, 0.15...15A, 24...240V AC/DC, 2 C/O

RM35JA32MRSP01

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Relay
Relay Type	Current control relay
Product or Component Type	Modular measurement and control relays
Relay name	RM35JA
Relay monitored parameters	Overcurrent or undercurrent in window mode Overcurrent or undercurrent detection
Time delay type	Adjustable 0.1...30 s, +/- 10 % of the full scale value on crossing the threshold Tt
Switching capacity in VA	2000 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	8 A AC
Maximum power consumption in VA	3.5 VA
Measurement range	0.15...1.5 A E1-M terminals 0.5...5 A E2-M terminals 1.5...15 A E3-M terminals 150 mA...15 A current AC/DC 50/60 Hz
Utilisation category	AC-15 IEC 60947-5-1 DC-13 IEC 60947-5-1 AC-1 IEC 60947-4-1 DC-1 IEC 60947-4-1

Complementary

Reset time	1500 ms at maximum voltage
Maximum switching voltage	250 V AC
Supply voltage limits	20.4…264 V AC/DC
operating voltage tolerance	- 15 % + 10 % Un
Maximum power consumption in W	1.5 W DC
Resistance across terminals	0.005 Ohm E3-M terminals 0.015 Ohm E2-M terminals 0.05 Ohm E1-M terminals
Output contacts	2 C/O
nominal output current	8 A
Maximum measuring cycle	100 ms measurement cycle as true rms value
Internal input resistance	0.015 Ohm 0.005 Ohm 0.05 Ohm
Setting accuracy of the switching threshold	+/- 10 % of the full scale

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

Switching threshold drift	<= 0.05 % per degree centigrade depending permissible ambient air temperature <= 1 % within the supply voltage range
Setting accuracy of time delay	10 P
Time delay drift	<= 0.05 % per degree centigrade depending permissible ambient air temperature <= 1 % within the supply voltage range
Hysteresis	5…50 % adjustable threshold setting 3 % fixed full scale for window mode
delay at power up	0.3 s
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 2 % time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Response time	<= 500 ms (on crossing the threshold)
Threshold setting	10...100 %
Overvoltage category	III conforming to IEC 60664-1 III conforming to UL 508
Insulation resistance	> 100 MOhm 500 V DC IEC 60255-27
Insulation	Between supply and measurement
Connections - terminals	Screw terminals, 2 x 0.5...2 x 2.5 mm² AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm² AWG 20...AWG 12) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm² AWG 24...AWG 14) flexible with cable end
Tightening torque	5.3…8.9 lbf.in (0.6…1 N.m) IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED (yellow) for relay ON LED (green) for power ON
Mounting support	35 mm DIN rail conforming to IEC 60715
Electrical durability	100000 cycles
Mechanical durability	10000000 cycles
Safety reliability data	MTTFd = 296.8 years B10d = 270000
Contacts material	Cadmium free
Width	1.4 in (35 mm)
Net Weight	0.26 lb(US) (0.12 kg)

Environment

Immunity to microbreaks	50 ms

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 industrial environments conforming to IEC 61000-6-4 Electrostatic discharge - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test - test level: 10 V/m level 3 conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test - test level: 4 kV level 4 (direct) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 2 kV level 4 (capacitive coupling) conforming to IEC 61000-4-4 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 Conducted and radiated emissions class B group 1 conforming to CISPR 11 Conducted and radiated emissions class B conforming to CISPR 22 Emission standard for residential, commercial and light-industrial environments (except radiated emission) conforming to IEC 61000-6-3
Standards	IEC 60255-1
Product Certifications	CE UL CSA
Ambient Air Temperature for Storage	-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
Environmental characteristic	3K3 C
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) IP50 IEC 60529 front panel) IP30 IEC 60529 housing)
Pollution degree	3 IEC 60664-1 3 UL 508
Dielectric test voltage	2.5 kV AC 50 Hz, 1 min IEC 60255-27

Ordering and shipping details

Category	US10CP222380
Discount Schedule	0CP2
GTIN	3606489479435
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.89 in (4.8 cm)
Package 1 Width	3.07 in (7.8 cm)

Package 1 Length	3.74 in (9.5 cm)
Package weight(Lbs)	4.7 oz (133 g)
Unit Type of Package 2	S02
Number of Units in Package 2	32
Package 2 Height	5.91 in (15 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	10.490 lb(US) (4.758 kg)

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

Carbon footprint (kg CO2 eq, Total Life cycle)	49
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	5e3fdf99-611b-4d07-ad17-6eba84ab488b

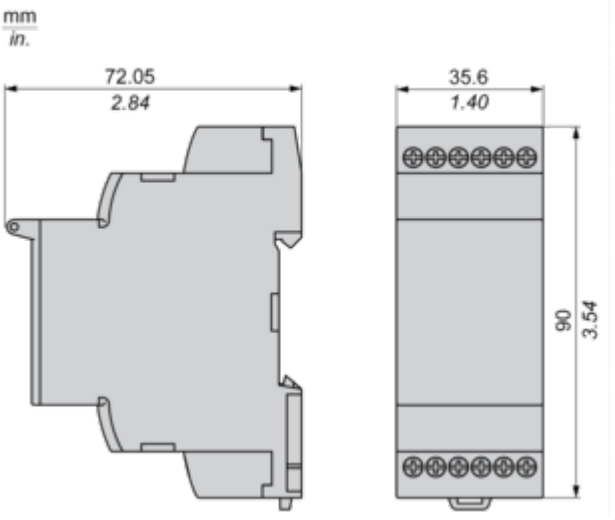
Use Again

Repack and remanufacture

Circularity Profile	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

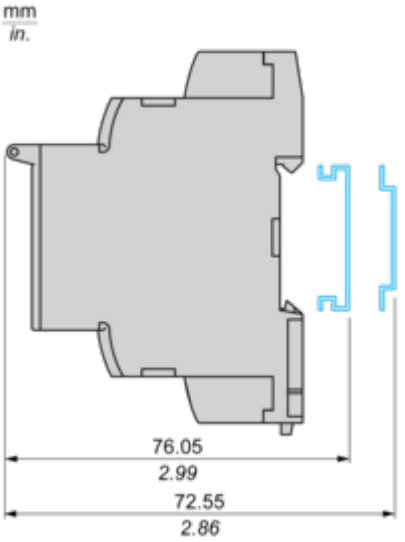
Dimensions



Mounting and Clearance

Mounting and Clearance

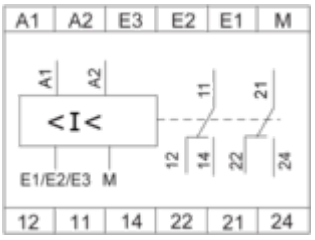
Rail Mounting



Connections and Schema

Current Measurement Relay

Wiring Diagram



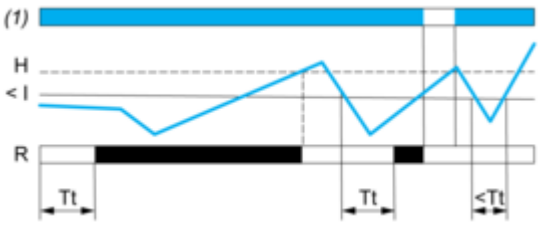
A1,A2 : Supply voltage
E1,E2,E3,M : Currents to be measured
11-14,12 : 1st C/O contact of output relay
21-24,22 : 2nd C/O contact of output relay

Technical Description

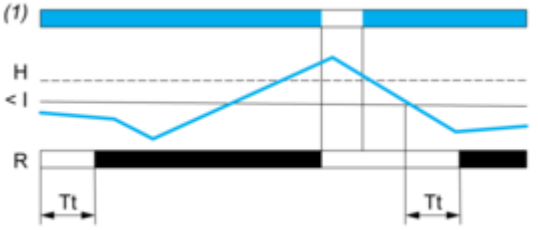
Function Diagrams

Undercurrent Detection

Undercurrent - No Memory

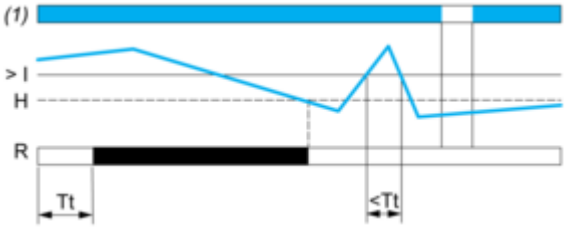


Undercurrent - Memory

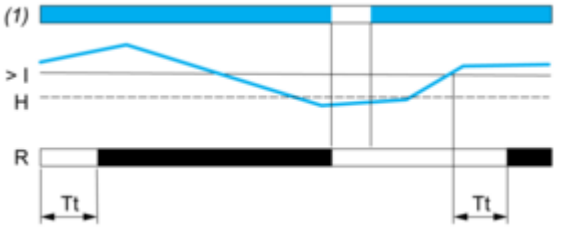


Overcurrent Detection

Overcurrent - No Memory



Overcurrent - Memory



Legend

(1) : Power supply
Tt : Time delay after crossing of threshold
I : Monitored current
H : Hysteresis
> I : Undervoltage threshold
< I : Undervoltage threshold
R : Relay status : black color = energized.

NOTE: In “Memory” mode, the relay closes 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.

Technical Illustration

Dimensions