Product data sheet

Specifications

3-phase control relay, Harmony Control Relays, 8A, 2CO, undervoltage detection, 200â€¦240V AC

RM22TU21

Product availability: Non-Stock - Not normally stocked in distribution facility

Price*: 151.30 USD

Main

Range Of Product	Harmony Control Relays
Relay Type	Control relay
Product Or Component Type	3-phase control relay
Phase	3 phase
Relay Name	RM22TR
Relay Monitored Parameters	Undervoltage detection Phase sequence Phase failure detection
Time Delay Type	Without
Switching Capacity In Va	2000 VA
Measurement Range	200...240 V voltage AC
Contacts Type And Composition	2 C/O

Complementary

Reset Time	1500 ms at maximum voltage
Maximum Switching Voltage	250 V AC
Minimum Switching Current	10 mA 5 V DC
Maximum Switching Current	8 A AC
[Us] Rated Supply Voltage	AC/DC
Supply Voltage Limits	160…288 V AC
Operating Limits	- 20 % + 20 % Un
Power Consumption In Va	10 VA 240 V AC 60 Hz
Voltage Detection Threshold	< 100 V AC
Supply Voltage Frequency	50...60 Hz +/- 10 %
Output Contacts	2 C/O
Nominal Output Current	8 A
Setting Accuracy Of The Switching Threshold	+/- 10 % of the full scale
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

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

Time Delay Drift	<= 0.05 % per degree centigrade depending permissible ambient air temperature <= 1 % within the supply voltage range
Hysteresis	2 % fixed selectable
Run-Up Delay At Power-Up	650 ms
Maximum Measuring Cycle	150 ms measurement cycle as true rms value
Threshold Adjustment Voltage	2...20 % of Un selected
Voltage Range	200...240 V phase to phase
Repeat Accuracy	+/- 0.5 % input and measurement circuit
Measurement Error	< 1 % over the whole range with voltage variation < 0.05 %/°C with temperature variation
Response Time	<= 300 ms
Overvoltage Category	III IEC 60664-1 III UL 508
Insulation Resistance	> 100 MOhm 500 V DC IEC 60255-27
Mounting Position	Any position
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	5.31…8.85 lbf.in (0.6…1 N.m) IEC 60947-1
Housing Material	Self-extinguishing plastic
Status Led	LED (Yellow) relay ON LED (Green) power ON
Mounting Support	35 mm DIN rail conforming to IEC 60715
Electrical Durability	100000 cycles
Mechanical Durability	10000000 cycles
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
[Un] Rated Nominal Voltage	, self-powered
Safety Reliability Data	B10d = 350000 MTTFd = 388.1 years
Contacts Material	Cadmium free
Control Type	With test button
Width	0.89 in (22.5 mm)
Net Weight	0.20 lb(US) (0.09 kg)

Environment

Immunity To Microbreaks	10 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 residential, commercial and light-industrial environments conforming to IEC 61000-6-3 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
Standards	IEC 60255-1
Product Certifications	RCM CE CSA GL CCC UL EAC
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 AC/DC
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 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	3606480792168
Returnability	No
Country Of Origin	ID

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	1.02 in (2.6 cm)

Package 1 Width	3.23 in (8.2 cm)
Package 1 Length	3.74 in (9.5 cm)
Package 1 Weight	3.56 oz (101.0 g)
Unit Type Of Package 2	S02
Number Of Units In Package 2	40
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	9.79 lb(US) (4.442 kg)
Unit Type Of Package 3	P06
Number Of Units In Package 3	640
Package 3 Height	19.69 in (50.0 cm)
Package 3 Width	31.50 in (80.0 cm)
Package 3 Length	23.62 in (60.0 cm)
Package 3 Weight	189.99 lb(US) (86.18 kg)

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

Well-being performance

Mercury Free

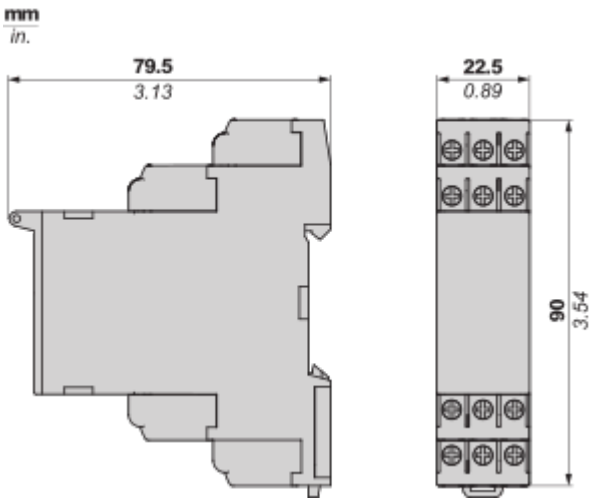
Rohs Exemption Information	Yes

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
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

Dimensions Drawings

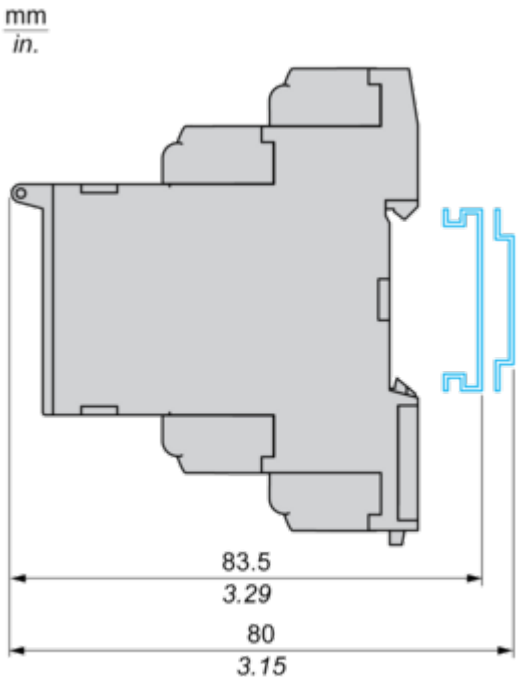
Dimensions



Mounting and Clearance

Mounting and Clearance

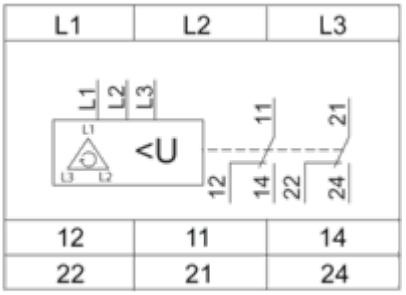
Rail Mounting



Connections and Schema

3-Phase Undervoltage Control Relay

Wiring Diagram

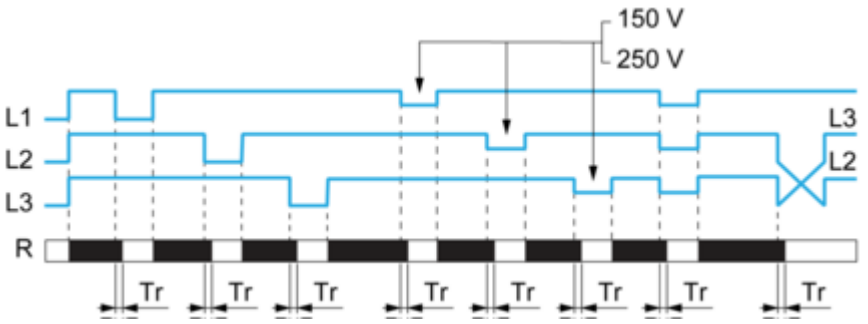


L1,L2,L3 : Supply to be monitored
11-14,12 : 1st C/O contact of output relay
21-24,22 : 2nd C/O contact of output relay

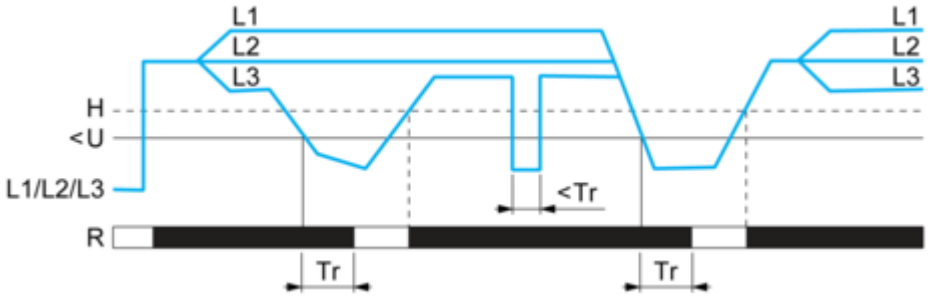
Technical Description

Function Diagrams

Phase Sequence Control and Phase failure Detection



Undervoltage Control



Legend

Tr : Response time after cross the threshold
U< : Undervoltage threshold
L1, L2, L3 : Phases of the supply voltage monitored
R : Relay output 11-12/11-14, 21-22/21-24
H : Hysteresis
Relay status : black color = energized.