

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

RM22TU21

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

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	200240 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	160288 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	5060 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	
Time delay drift	<= 0.05 % per degree centigrade depending permissible ambient air temperature <= 1 % within the supply voltage range	

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

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	220 % of Un selected	
Voltage range	200240 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 conforming to IEC 60664-1 III conforming to UL 508	
Insulation resistance	> 100 MOhm 500 V DC IEC 60255-27	
Mounting position	Any position	
Connections - terminals	Screw terminals, 2 x 0.52 x 2.5 mm² AWG 20AWG 14) solid without cable end Screw terminals, 2 x 0.22 x 1.5 mm² AWG 24AWG 16) flexible with cable end Screw terminals, 1 x 0.51 x 3.3 mm² AWG 20AWG 12) solid without cable end Screw terminals, 1 x 0.21 x 2.5 mm² AWG 24AWG 14) flexible with cable end	
Tightening torque	5.38.9 lbf.in (0.61 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	0.9 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		
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	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		
	Contacted and radiated chilosione class B contenting to creative 22		
Standards	IEC 60255-1		
Product Certifications	RCM		
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	CSA		
	GL		
	CCC		
	UL		
	EAC		
Ambient Air Temperature for	-40158 °F (-4070 °C)		
Storage			
Ambient air temperature for	-4122 °F (-2050 °C) 60 Hz		
operation	-4140 °F (-2060 °C) 50 Hz AC/DC		
Relative humidity	9397 % 77131 °F (2555 °C) IEC 60068-2-30		
Vibration resistance	0.075 mm 1058.1 Hz) not in operation IEC 60068-2-6		
	1 gn 1058.1 Hz) not in operation IEC 60068-2-6		
	· · ·		
	0.035 mm 58.1150 Hz) in operation IEC 60068-2-6		
	0.5 gn 58.1150 Hz) in operation IEC 60068-2-6		
Shock resistance	15 gn 11 ms) not in operation IEC 60068-2-27		
Onock resistance			
	5 gn 11 ms) in operation IEC 60068-2-27		
IP degree of protection	IP20 IEC 60529 terminals)		
addition by brothonic	· · · · · · · · · · · · · · · · · · ·		
	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		
2.3.30th to took voltage	2.0 KV AO 00 HZ, 1 HIII ILO 00200-21		

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 (2.600 cm)

Package 1 Width	3.23 in (8.200 cm)
Package 1 Length	3.74 in (9.500 cm)
Package 1 Weight	3.563 oz (101.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	9.793 lb(US) (4.442 kg)



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)	71	

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	3c095d35-159c-493c-8604-58788d456aa9
REACh Regulation	REACh Declaration
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

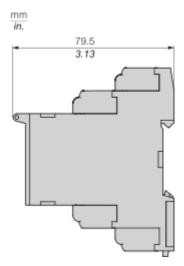
○ Repack and remanufacture		
Take-back	No	

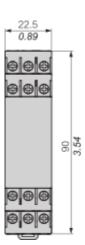
Product data sheet

RM22TU21

Dimensions Drawings

Dimensions





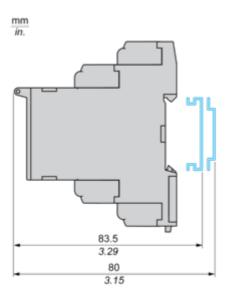
Product data sheet

RM22TU21

Mounting and Clearance

Mounting and Clearance

Rail Mounting



Product data sheet

RM22TU21

Connections and Schema

3-Phase Undervoltage Control Relay

Wiring Diagram

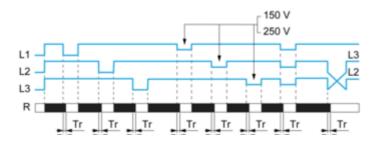


L1,L2,L3: Supply to be monitored 11-14,12: 1st C/O contact of output relay 21-24,22: 2nd C/O contact of output relay

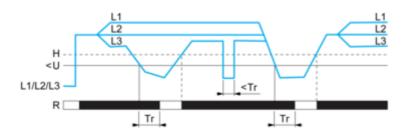
Technical Description

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

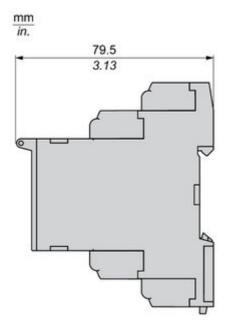
R: Relay output 11-12/11-14, 21-22/21-24

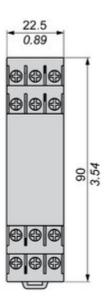
H: Hysteresis

Relay status: black color = energized.

Technical Illustration

Dimensions





Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

Technical Benefits

Harmony Control Relay

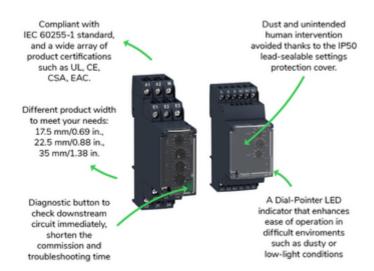


Image of product / Alternate images

Alternative













15

Image of product in real life situation

