Product datasheet

Specification





Overvoltage control relay 15V... 500Vac/dc, 2 C/O

RM22UA23MR

Main

Range of product	Harmony Control Relays
Relay type	Voltage control relay
Product or component type	Voltage control relay
Network number of phases	1 phase
Supply circuit type	DC
Relay name	RM22UA
Relay monitored parameters	Overvoltage detection
time delay	Without
Switching capacity in VA	2000 VA
Measurement range	15500 V AC/DC
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 at 5 V DC
Maximum switching current	8 A AC
Supply voltage limits	20.4264 V AC/DC
Power consumption in VA	3.5 VA AC
Maximum power consumption in W	1.5 W DC
Immunity to microbreaks	10 ms
Resistance across terminals	150 kOhm at E2-M terminals 300 kOhm at E1-M terminals 500 kOhm at E3-M terminals
Output contacts	2 C/O
Hysteresis	550 % adjustable of threshold setting
delay at power up	600 ms
Maximum measuring cycle	100 ms measurement cycle as true rms value
Repeat accuracy	+/- 0.5 % for input and measurement circuit
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Response time	<= 500 ms

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

Insulation resistance	> 100 MOhm at 500 V DC
Overvoltage category	III conforming to IEC 60664-1
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
[Uimp] rated impulse withstand voltage	5 kV during 1.2/50 μs conforming to IEC 60255-27
Insulation	Between supply and measurement
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	0.61 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Mounting support	35 mm DIN rail conforming to IEC 60715
Electrical durability	100000 cycles
Mechanical durability	10000000 cycles
Utilisation category	AC-15 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 AC-1 conforming to IEC 60947-4-1 DC-1 conforming to IEC 60947-4-1
[Un] rated nominal voltage	24240 V AC/DC 50/60 Hz, non self-powered
Safety reliability data	MTTFd = 308.2 years B10d = 290000
Contacts material	Cadmium free
Control type	With test button
Width	22.5 mm
Net weight	0.11 kg

Environment

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	
-2050 °C at 60 Hz	
-2060 °C at 50 Hz	

CE
CCC
GL
RCM
UL
EAC
CSA
-4070 °C
9397 % at 2555 °C conforming to IEC 60068-2-30
0.075 mm (f= 1058.1 Hz) not in operation conforming to IEC 60068-2-6 1 gn (f= 1058.1 Hz) not in operation conforming to IEC 60068-2-6
0.035 mm (f= 58.1150 Hz) in operation conforming to IEC 60068-2-6
0.5 gn (f= 58.1150 Hz) in operation conforming to IEC 60068-2-6
15 gn (duration = 11 ms) for not in operation conforming to IEC 60068-2-27
5 gn (duration = 11 ms) for in operation conforming to IEC 60068-2-27
IP20 (terminals) conforming to IEC 60529
IP40 (housing) conforming to IEC 60529
IP50 (front panel) conforming to IEC 60529
3 conforming to IEC 60664-1
2.5 kV, 1 min AC 50 Hz conforming to IEC 60255-27

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.6 cm
Package 1 Width	8.2 cm
Package 1 Length	9.5 cm
Package 1 Weight	121.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	5.252 kg
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	80.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	93.22 kg

Sustainability Screen Premium*

Green PremiumTM **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ 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

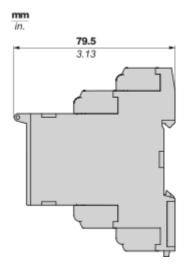
Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information

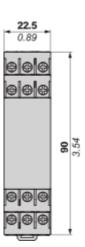
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Dimensions Drawings

Dimensions



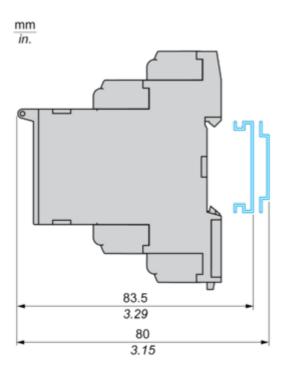


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Mounting and Clearance

Mounting and Clearance

Rail Mounting



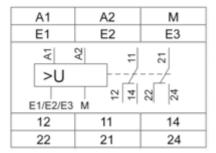
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Connections and Schema

Overvoltage Control Relay

Wiring Diagram



A1,A2 : Supply voltage

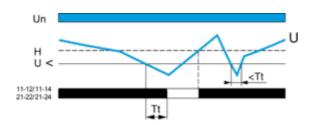
E1,E2,E3,M: Voltages to be measured 11-14,12: 1st C/O contact of output relay 21-24,22: 2nd C/O contact of output relay

Technical Description

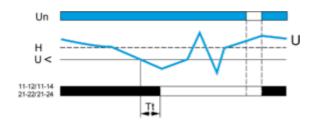
Function Diagrams

Undervoltage Control

Without memory ("No Memory" mode)

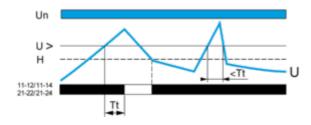


With memory ("Memory" mode)

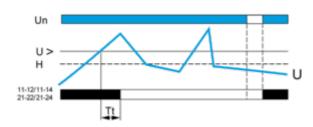


Overvoltage Control

Without memory ("No Memory" mode)



With memory ("Memory" mode)



Legend

Tt Time delay after crossing of threshold

Un Nominal supply voltage

U Monitored supply voltage

H Hysteresis

U> Overvoltage threshold

U< Undervoltage 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.

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