

# RM22UB34

voltage control relay, Harmony Control Relays,  
8A, 2CO, 80...300V AC DC, 110...240V AC  
DC



## Main

Range of Product	Harmony Control Relays
Relay Type	Voltage control relay
Product or Component Type	Voltage control relay
Phase	1 phase
Supply circuit type	AC/DC
Relay name	RM22UA
Relay monitored parameters	Overvoltage and undervoltage detection
Time delay	Adjustable 0.1...30 s, +/- 10 % of the full scale value Tt- time delay upon fault
Switching capacity in VA	2000 VA
Measurement range	80...300 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 5 V DC
Maximum switching current	8 A AC
Supply voltage limits	60...280 V AC
Power consumption in VA	5 VA AC
Maximum power consumption in W	2 W DC
Immunity to microbreaks	20 ms
Output contacts	2 C/O
Nominal output current	8 A
Hysteresis	5...50 % adjustable threshold setting
Delay at power up	600 ms
Maximum measuring cycle	250 ms measurement cycle as true rms value
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 2 % time delay
Measurement error	< 1 % over the whole range with voltage variation 0.2 %/°C with temperature variation
Response time	<= 500 ms
Insulation resistance	> 100 MOhm 500 V DC
Overvoltage category	III IEC 60664-1
Connections - terminals	Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) solid without cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16) flexible with cable end Screw terminals, 1 x 0.5...1 x 3.3 mm <sup>2</sup> AWG 20...AWG 12) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> 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
Mounting support	35 mm DIN rail conforming to IEC 60715
Electrical durability	100000 cycles

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

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	110...240 V AC/DC 50/60 Hz, non self-powered
Safety reliability data	MTTFd = 433.7 years B10d = 400000
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

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
Ambient air temperature for operation	-4...122 °F (-20...50 °C) 60 Hz -4...140 °F (-20...60 °C) 50 Hz
Standards	IEC 60255-1
Product Certifications	CCC[RETURN]CE[RETURN]CSA[RETURN]EAC[RETURN]UL[RETURN]GL[RETURN]RCM
Ambient Air Temperature for Storage	-40...158 °F (-40...70 °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) IP40 IEC 60529 housing) IP50 IEC 60529 front panel)
Pollution degree	3 IEC 60664-1
Dielectric test voltage	2.5 kV AC 50 Hz, 1 min IEC 60255-27

## Ordering and shipping details

Category	US10CP222380
Discount Schedule	OCP2
GTIN	3606480792274
Returnability	Yes
Country of origin	FR

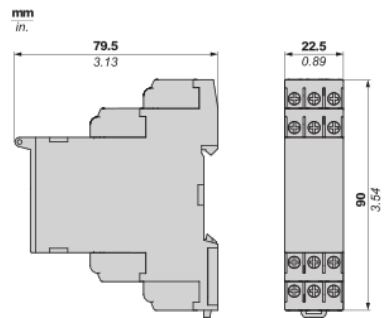
## Packing Units

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	3.2 in (8.2 cm)
Package 1 Length	3.7 in (9.5 cm)
Package 1 Weight	3.7 oz (104.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	40
Package 2 Height	5.9 in (15.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	10.10 lb(US) (4.58 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	640
Package 3 Height	31.5 in (80.0 cm)
Package 3 Width	31.5 in (80.0 cm)
Package 3 Length	23.6 in (60.0 cm)
Package 3 Weight	189.99 lb(US) (86.18 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions



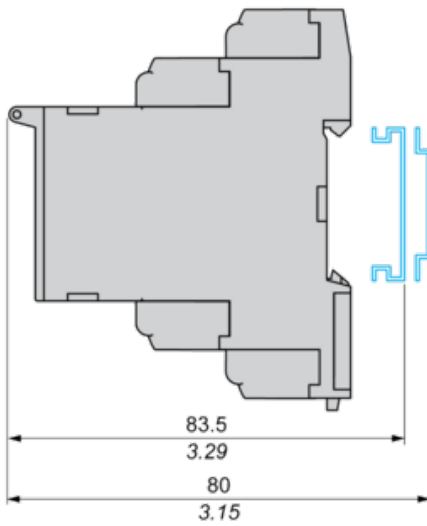
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Mounting and Clearance

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Rail Mounting

mm  
in.

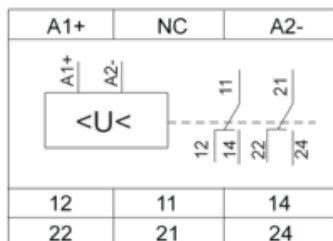


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Voltage Control Relay

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Wiring Diagram



A1+,A2- : Voltage to be monitored

11-14,12 : 1st C/O contact of output relay

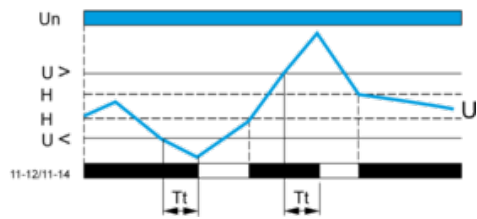
21-24,22 : 2nd C/O contact of output relay

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## Function Diagram

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### Control of Overvoltage and Undervoltage in Window Mode



### Legend

$T_t$  Time delay after crossing of threshold

$U_n$  Nominal supply voltage

$U$  Monitored supply voltage

$H$  Hysteresis

$U >$  Overvoltage threshold

$U <$  Undervoltage threshold

11-12, 11-14 Output relay connections

Relay status: black color = energized.