Product data sheet
Characteristics

RM22UB34
voltage control relay, Harmony Control Relays, 8A, 2CO, 80…300V AC DC, 110…240V AC DC

Main

Range of product	Harmony Control Relays
Product or component type	Voltage control relay
Relay type	Voltage control relay
Network number of phases	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 on crossing the threshold Tt
Switching capacity in VA	2000 VA
Minimum switching current	10 mA at 5 V DC
Maximum switching current	8 A AC
Power consumption in VA	5 VA AC
Measurement range	80...300 V voltage AC/DC 50/60 Hz
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
Contacts type and composition	2 C/O

Complementary

Reset time	1500 ms at maximum voltage
Maximum switching voltage	250 V AC
[Us] rated supply voltage	110...240 V AC/DC 50/60 Hz
Supply voltage limits	60…280 V AC
Maximum power consumption in W	2 W DC
Immunity to microbreaks	20 ms
Output contacts	2 C/O
Nominal output current	8 A
Maximum measuring cycle	250 ms measurement cycle as true rms value
Hysteresis	5…50 % adjustable of threshold setting
Delay at power up	600 ms
Repeat accuracy	+/- 0.5 % for input and measurement circuit +/- 2 % for time delay
Measurement error	< 1 % over the whole range with voltage variation 0.2 %/°C with temperature variation
Response time	<= 500 ms
Overvoltage category	III conforming to IEC 60664-1
Insulation resistance	> 100 MOhm at 500 V DC

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	0.6…1 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
Contacts material	Cadmium free
Safety reliability data	MTTFd = 433.7 years B10d = 400000
Width	22.5 mm
Net weight	0.09 kg
Functionality	Overvoltage and undervoltage detection
Compatibility code	RM22

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
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…70 °C
Ambient air temperature for operation	-20…50 °C at 60 Hz -20…60 °C at 50 Hz
Relative humidity	93…97 % at 25…55 °C conforming to IEC 60068-2-30
Vibration resistance	0.075 mm (f= 10…58.1 Hz) not in operation conforming to IEC 60068-2-6 1 gn (f= 10…58.1 Hz) not in operation conforming to IEC 60068-2-6 0.035 mm (f= 58.1…150 Hz) in operation conforming to IEC 60068-2-6 0.5 gn (f= 58.1…150 Hz) in operation conforming to IEC 60068-2-6
Shock resistance	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
IP degree of protection	IP20 (terminals) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP50 (front panel) conforming to IEC 60529
Pollution degree	3 conforming to IEC 60664-1
Dielectric test voltage	2.5 kV, 1 min AC 50 Hz conforming to IEC 60255-27

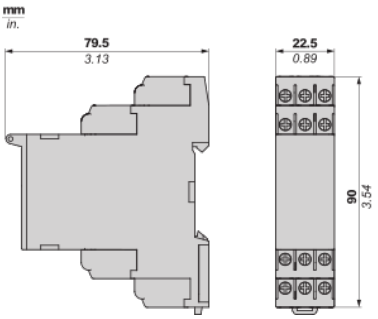
Packing Units

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	104.0 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	4.58 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	86.18 kg

Offer Sustainability

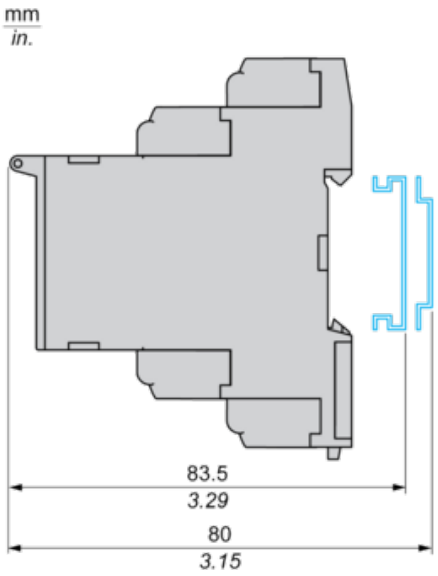
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions



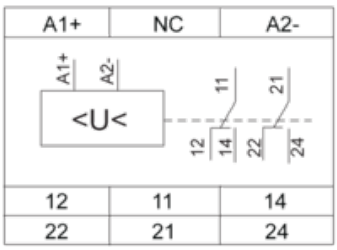
Mounting and Clearance

Rail Mounting



Voltage Control Relay

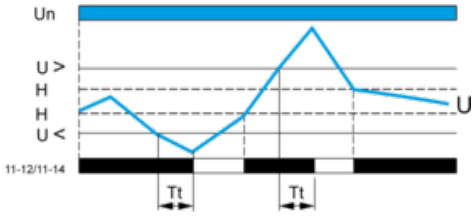
Wiring Diagram



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

Function Diagram

Control of Overvoltage and Undervoltage in Window 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 Output relay connections
Relay status: black color = energized.