Product data sheet

Specifications



Modular 3 phaseVoltage control relay, Harmony, 5A, 2CO, 120… 277V AC

RM35UB3N30

Product availability : Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Control Relays
Product or Component Type	Voltage control relay
Relay Type	Voltage control relay
Product Specific Application	For 3-phase supply
Relay name	RM35UB3
Relay monitored parameters	Absence of neutral Overvoltage and undervoltage between phases Overvoltage and undervoltage between neutral
Time delay	Adjustable 0.3...30 s, 0 + 10 % on crossing the threshold
Switching capacity in VA	1250 VA
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC/DC
Power consumption in VA	0…3.9 VA AC
Measurement range	114...329 V voltage AC 50/60 Hz
Utilisation category	AC-12 IEC 60947-5-1 AC-13 IEC 60947-5-1 AC-14 IEC 60947-5-1 AC-15 IEC 60947-5-1 DC-12 IEC 60947-5-1 DC-13 IEC 60947-5-1 DC-14 IEC 60947-5-1
Contacts type and composition	2 C/O

Complementary

Reset time	1500 ms time delay
Maximum switching voltage	250 V AC/DC
[Us] Rated Supply Voltage	120...277 V AC 50/60 Hz +/- 10 %
Supply voltage limits	114…329 V AC
Voltage detection threshold	114 V
Control circuit frequency	50...60 Hz +/- 15 %
Output contacts	1 C/O + 1 C/O, 1 per threshold
Nominal output current	5 A

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

Maximum measuring cycle	150 ms measurement cycle as true rms value
Hysteresis	2 %
Delay at power up	650 ms
Measurement accuracy	+/- 10 % of the full scale value
Repeat accuracy	+/- 0.5 % input and measurement circuit +/- 1 % time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation
Response time	< 200 ms (in the event of a fault)
Quality labels	CE
Overvoltage category	III IEC 60664-1
Insulation resistance	> 500 MOhm 500 V DC IEC 60255-5 > 500 MOhm 500 V DC IEC 60664-1
[Ui] rated insulation voltage	400 V IEC 60664-1
Operating position	Any position without derating
Connections - terminals	Screw terminals, 1 x 0.5...1 x 4 mm² AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm² AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...2 x 2.5 mm² AWG 24...AWG 12) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm² AWG 24...AWG 16) 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
Local signalling	for power ON LED (green) for relay ON LED (yellow)
Mounting support	35 mm symmetrical DIN rail conforming to EN/IEC 60715
Electrical durability	10000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Safety reliability data	B10d = 470000 MTTFd = 502.2 years
Width	1.38 in (35 mm)
Net Weight	0.18 lb(US) (0.08 kg)
Functionality	Overvoltage and undervoltage detection
Compatibility code	RM3

Environment

Electromagnetic compatibility	Emission standard for industrial environments EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments EN/IEC 61000-6-3 Immunity for industrial environments NF EN/IEC 61000-6-2
Standards	EN/IEC 60255-1
Product Certifications	UL C-tick GL CSA GOST
Directives	73/23/EEC - low voltage directive 89/336/EEC - electromagnetic compatibility
Ambient Air Temperature for Storage	-40…158 °F (-40…70 °C)
Ambient air temperature for operation	-4…122 °F (-20…50 °C)
Relative humidity	95 % 131 °F (55 °C) IEC 60068-2-30
Vibration resistance	0.35 mm 5…57.6 Hz)IEC 60068-2-6 1 gn 57.6…150 Hz)IEC 60255-21-1

Shock resistance	5 gn IEC 60068-2-27
IP degree of protection	IP20 IEC 60529 terminals) IP30 IEC 60529 casing)
Pollution degree	3 IEC 60664-1
Dielectric test voltage	2 kV AC 50 Hz, 1 min
Non-dissipating shock wave	4 kV

Ordering and shipping details

Category	22380-RELAYS-MEASUREMENT (RM17-RM35)
Discount Schedule	CP2
GTIN	3389119405331
Returnability	No
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.85 in (4.7 cm)
Package 1 Width	3.07 in (7.8 cm)
Package 1 Length	3.82 in (9.7 cm)
Package 1 Weight	4.41 oz (125 g)
Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Height	11.81 in (30 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	14.81 lb(US) (6.719 kg)

Offer Sustainability

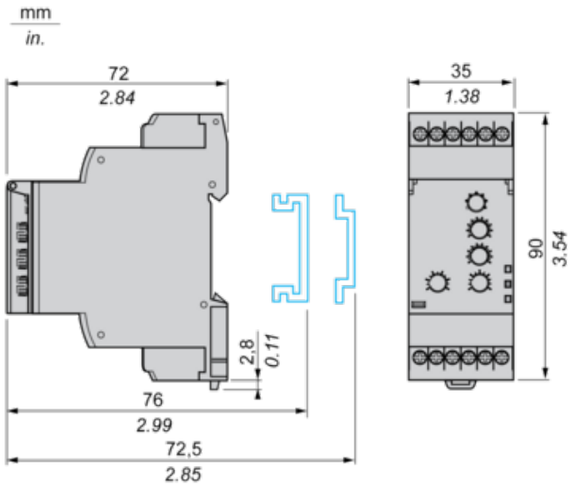
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
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

Contractual warranty

Warranty	18 months

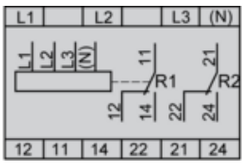
3-Phase Voltage Control Relays

Dimensions and Mounting



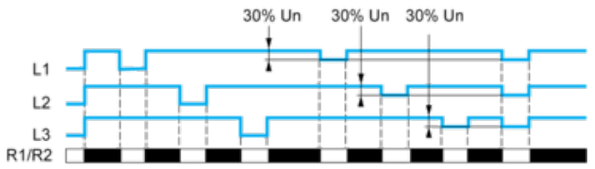
3-Phase Voltage Control Relays

Wiring Diagram

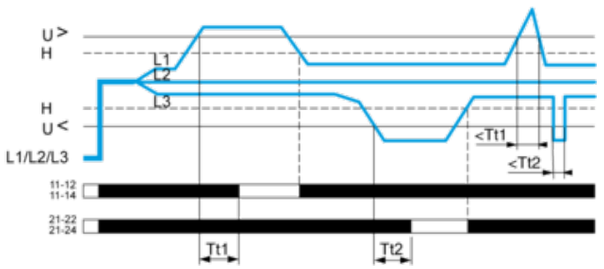


Function Diagrams

Phase Failure Detection (U measured < 0.7 x nominal supply voltage)



Control of Overvoltage and Undervoltage



Legend

Un Nominal supply voltage

Tt1 Overvoltage threshold delay

Tt2 Undervoltage threshold delay

H Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

L1, L2, L3 Phases of the supply voltage monitored

11-12, 11-14 R1 output relay connections

21-22, 21-24 R2 output relay connections

Relay status: black color = energized.

Recommended replacement(s)