

# Product datasheet

Specifications



## voltage control relay RM35-U - range 114..329 V AC

RM35UB3N30

### Main

Range of product	Harmony Control Relays
Relay type	Voltage control relay
Product or component type	3-phase 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 % Tt- time delay upon fault
Switching capacity in VA	1250 VA
Measurement range	120...277 V AC
Contacts type and composition	2 C/O

### Complementary

Reset time	1500 ms time delay
Maximum switching voltage	250 V AC/DC
Minimum switching current	10 mA at 5 V DC
Maximum switching current	5 A AC/DC
Supply voltage limits	114...329 V AC
Power consumption in VA	0...3.9 VA AC
Control circuit frequency	50...60 Hz +/- 15 %
Voltage detection threshold	114 V
Output contacts	1 C/O + 1 C/O, 1 per threshold
Nominal output current	5 A
Hysteresis	2 %
Measurement accuracy	+/- 10 % of the full scale value
delay at power up	650 ms
Maximum measuring cycle	150 ms measurement cycle as true rms value
Threshold adjustment voltage	2...20 % of Un selected
Repeat accuracy	+/- 0.5 % for input and measurement circuit +/- 1 % for time delay
Measurement error	< 1 % over the whole range with voltage variation 0.05 %/°C with temperature variation

<b>Response time</b>	< 200 ms (in the event of a fault)
<b>Quality labels</b>	CE
<b>Insulation resistance</b>	> 500 MOhm at 500 V DC conforming to IEC 60255-5 > 500 MOhm at 500 V DC conforming to IEC 60664-1
<b>Operating position</b>	Any position without derating
<b>Local signalling</b>	LED (green) for power ON LED (yellow) for relay ON
<b>Overvoltage category</b>	III conforming to IEC 60664-1
<b>[UI] rated insulation voltage</b>	400 V conforming to IEC 60664-1
<b>Connections - terminals</b>	Screw terminals, 1 x 0.5...1 x 4 mm <sup>2</sup> (AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...2 x 2.5 mm <sup>2</sup> (AWG 24...AWG 12) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) flexible with cable end
<b>Tightening torque</b>	0.6...1 N.m conforming to IEC 60947-1
<b>Housing material</b>	Self-extinguishing plastic
<b>Mounting support</b>	35 mm symmetrical DIN rail conforming to IEC 60715
<b>Electrical durability</b>	10000 cycles
<b>Mechanical durability</b>	30000000 cycles
<b>Operating rate</b>	<= 360 operations/hour full load
<b>Utilisation category</b>	AC-12 conforming to IEC 60947-5-1 AC-13 conforming to IEC 60947-5-1 AC-14 conforming to IEC 60947-5-1 AC-15 conforming to IEC 60947-5-1 DC-12 conforming to IEC 60947-5-1 DC-13 conforming to IEC 60947-5-1 DC-14 conforming to IEC 60947-5-1
<b>[Un] rated nominal voltage</b>	, self-powered
<b>Safety reliability data</b>	B10d = 470000 MTTFd = 502.2 years
<b>Control type</b>	Without test button
<b>Width</b>	35 mm
<b>Net weight</b>	0.08 kg

## Environment

<b>Electromagnetic compatibility</b>	Emission standard for industrial environments conforming to IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Immunity for industrial environments conforming to NF EN/IEC 61000-6-2
<b>Ambient air temperature for operation</b>	-20...50 °C
<b>Vibration resistance</b>	0.35 mm (f= 5...57.6 Hz) conforming to IEC 60068-2-6 1 gn (f= 57.6...150 Hz) conforming to IEC 60255-21-1
<b>Shock resistance</b>	5 gn conforming to IEC 60068-2-27
<b>Standards</b>	IEC 60255-1
<b>Product certifications</b>	UL C-Tick GL CSA GOST
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>Relative humidity</b>	95 % at 55 °C conforming to IEC 60068-2-30

<b>IP degree of protection</b>	IP20 (terminals) conforming to IEC 60529 IP30 (casing) conforming to IEC 60529
<b>Pollution degree</b>	3 conforming to IEC 60664-1
<b>Directives</b>	73/23/EEC - low voltage directive 89/336/EEC - electromagnetic compatibility
<b>Dielectric test voltage</b>	2 kV, 1 min AC 50 Hz
<b>Non-dissipating shock wave</b>	4 kV

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.700 cm
<b>Package 1 Width</b>	7.800 cm
<b>Package 1 Length</b>	9.700 cm
<b>Package 1 Weight</b>	125.000 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	48
<b>Package 2 Height</b>	30.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	6.690 kg

## Contractual warranty

<b>Warranty</b>	12 months
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## Environmental Data

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.eq.CO2 per CR, Total Life cycle) 36

Environmental Disclosure [Product Environmental Profile](#)

## 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)

REACH Regulation [REACH Declaration](#)

## Use Again

### Repack and remanufacture

Circularity Profile [End of Life Information](#)

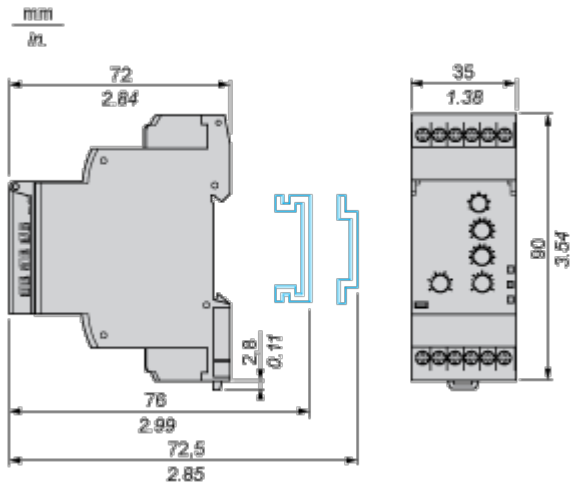
Take-back No

Dimensions Drawings

3-Phase Voltage Control Relays

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Dimensions and Mounting

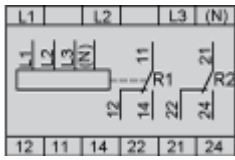


Connections and Schema

3-Phase Voltage Control Relays

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Wiring Diagram

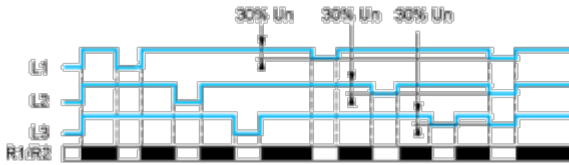


Technical Description

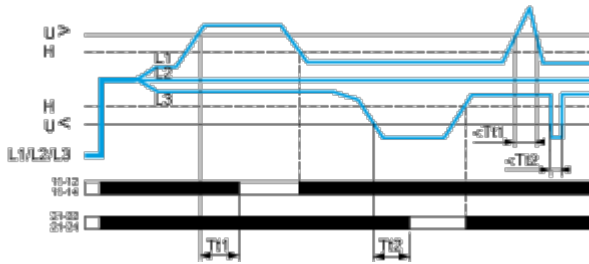
Function Diagrams

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



Control of Overvoltage and Undervoltage



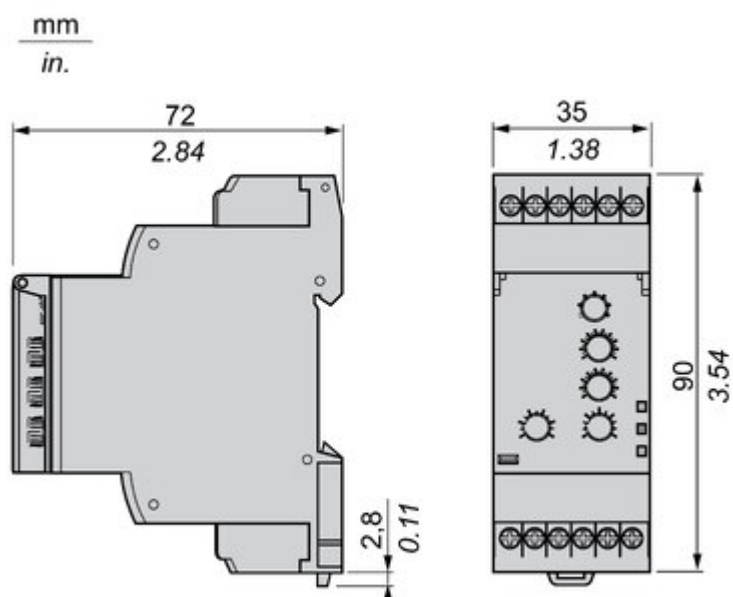
Legend

- 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.

Technical Illustration

Dimensions

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Offer Marketing Illustration

Product benefits / Features

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### Features

#### Harmony Control Relay



Wide monitoring parameters (phase, current, voltage, liquid level, frequency, speed, temperature, and pump control) to meet your application needs.



True RMS measurement that minimizes the possibility of unexpected trips from highly polluted networks (except RM17TG and RM22TG)





Experience unprecedented accuracy, predictive maintenance, and superior security.



Green Premium labelled products, promising compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> product



Compatible with a wide range of applications, such as hoisting, packaging, lifts, textile, pumping, and water.

Offer Marketing Illustration

Product benefits / Features

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## Technical Benefits

### Harmony Control Relay

Compliant with IEC 60255-1 standard, and a wide array of product certifications such as UL, CE, CSA, EAC.

Dust and unintended human intervention avoided thanks to the IP50 lead-sealable settings protection cover.

Different product width to meet your needs:  
17.5 mm/0.69 in.,  
22.5 mm/0.88 in.,  
35 mm/1.38 in.

Diagnostic button to check downstream circuit immediately, shorten the commission and troubleshooting time

A Dial-Pointer LED indicator that enhances ease of operation in difficult environments such as dusty or low-light conditions



Image of product / Alternate images

Alternative

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