

# Product data sheet

Specifications



## voltage control relay, Harmony Control Relays, 5A, 1CO, 208...480V AC

RM17UB310

**Product availability:** Stock - Normally stocked in distribution facility

### 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	RM17UB3
Relay monitored parameters	Overvoltage and undervoltage between phases
time delay	Adjustable 0.3...30 s, 0 + 10 % Tt- time delay upon fault
Switching capacity in VA	1250 VA
Measurement range	220...480 V AC
Contacts type and composition	1 C/O

### Complementary

Reset time	1500 ms time delay
Maximum switching voltage	250 V AC/DC
Minimum switching current	10 mA 5 V DC
Maximum switching current	5 A AC/DC
Supply voltage limits	183...528 V AC
Power consumption in VA	0...22 VA 400 V AC 50 Hz
Control circuit frequency	50...60 Hz +/- 10 %
Voltage detection threshold	183 V
Output contacts	1 C/O
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 -2...-17 % in the range 220 V AC +2...+10 % in the range 480 V AC -2...-12 % in the range 208 V AC
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

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

<b>Response time</b>	< 200 ms (in the event of a fault)
<b>Quality labels</b>	CE
<b>Insulation resistance</b>	> 500 MOhm 500 V DC IEC 60255-5 > 500 MOhm 500 V DC 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 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>	5.3...8.9 lbf.in (0.6...1 N.m) 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>	100000 cycles
<b>Mechanical durability</b>	30000000 cycles
<b>Operating rate</b>	<= 360 operations/hour full load
<b>Utilisation category</b>	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
<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>	0.7 in (17.5 mm)
<b>Product Weight</b>	0.18 lb(US) (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>	-4...122 °F (-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 IEC 60068-2-27
<b>Standards</b>	IEC 60255-1
<b>Product Certifications</b>	GOST UL GL C-tick CSA
<b>Ambient Air Temperature for Storage</b>	-40...158 °F (-40...70 °C)
<b>Relative humidity</b>	95 % 131 °F (55 °C) IEC 60068-2-30

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

## Ordering and shipping details

Category	US10CP222380
Discount Schedule	0CP2
GTIN	3389119405133
Returnability	Yes
Country of origin	ID

## Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.94 in (2.400 cm)
Package 1 Width	3.07 in (7.800 cm)
Package 1 Length	3.90 in (9.900 cm)
Package weight(Lbs)	3.069 oz (87.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	48
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	10.307 lb(US) (4.675 kg)

## Contractual warranty

Warranty	18 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 CO2 eq, Total Life cycle)

98

## 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)

SCIP Number

Ba9cbb5b-722a-41d2-b7d0-f60d5f3f104d

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](#)

## Use Again

### Repack and remanufacture

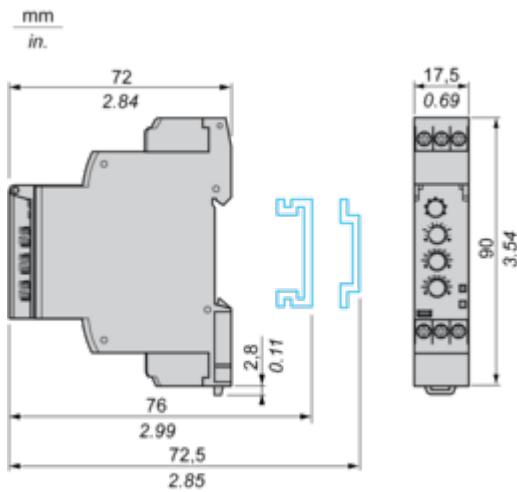
Take-back

No

## Dimensions Drawings

3-Phase Voltage Control Relays

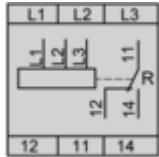
## Dimensions and Mounting



## Connections and Schema

3-Phase Voltage Control Relays

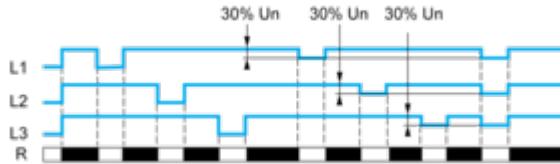
## Wiring Diagram



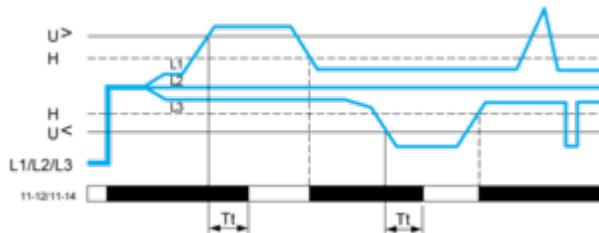
## Technical Description

Function Diagrams

## Phase Failure Detection (U measured &lt; 0.7 x nominal supply voltage)



## Control of Overvoltage and Undervoltage



## Legend

Un Nominal supply voltage

R Output relay

Tt Overvoltage and undervoltage threshold delay (adjustable on front panel from 0.3 to 30 s)

H Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

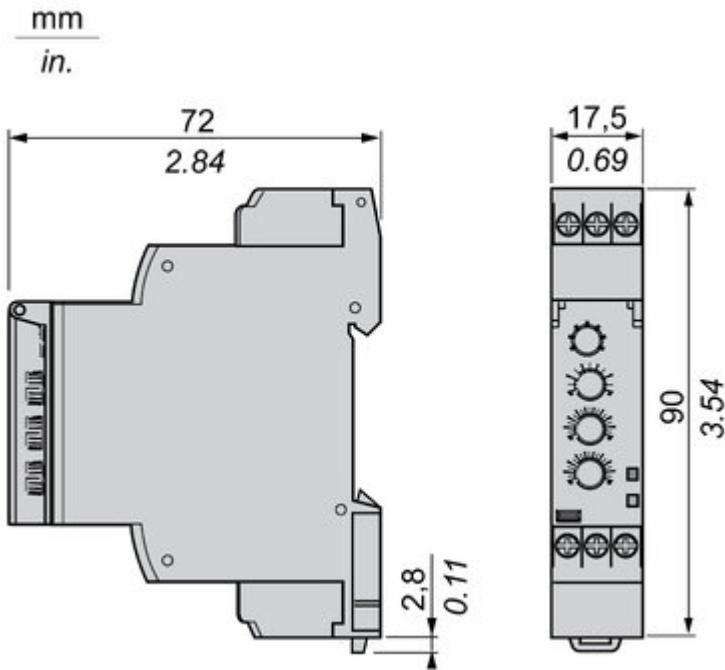
L1, L2, L3 Phases of the supply voltage monitored

11-12, 11-14 R1 output relay connections

Relay status: black color = energized.

## Technical Illustration

## Dimensions

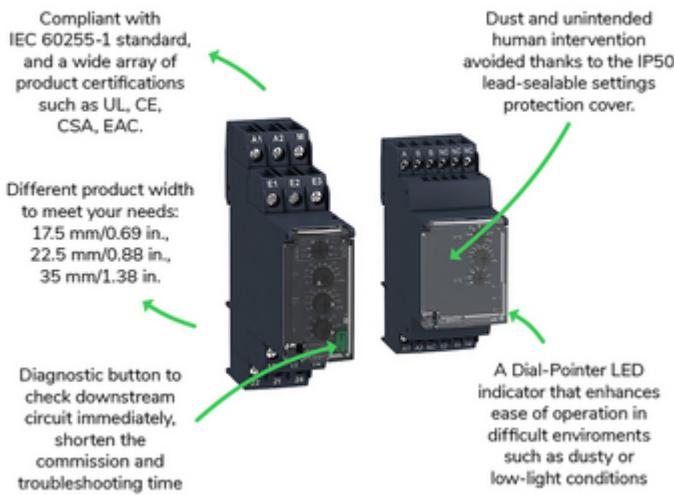


## Offer Marketing Illustration

## Product benefits / Features

## Technical Benefits

## Harmony Control Relay



## Offer Marketing Illustration

## Product benefits / Features

## 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.

### Image of product / Alternate images

## Alternative







Image of product in real life situation

