

# voltage control relay RM35-U - range 194..528 V AC

RM35UB330

# 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    | Overvoltage and undervoltage between phases            |  |
| time delay                    | Adjustable 0.330 s, 0 + 10 % Tt- time delay upon fault |  |
| Switching capacity in VA      | 1250 VA  |  |
| Measurement range             | 208480 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        | 194528 V AC  |  |
| Power consumption in VA      | 022 VA at 400 V AC 50 Hz   |  |
| Control circuit frequency    | 5060 Hz +/- 15 %   |  |
| Voltage detection threshold  | 194 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 | 220 % of Un selected<br>-122 % in the range 220 V AC<br>+2+10 % in the range 480 V AC  |  |
| Repeat accuracy              | +/- 0.5 % for input and measurement circuit<br>+/- 1 % for 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.

| Response time                 | < 200 ms (in the event of a fault)  |  |
|-------------------------------|---|--|
| Quality labels                | CE  |  |
| Insulation resistance         | > 500 MOhm at 500 V DC conforming to IEC 60255-5  |  |
|                               | > 500 MOhm at 500 V DC conforming to IEC 60664-1  |  |
| Operating position            | Any position without derating   |  |
| Local signalling              | LED (green) for power ON  |  |
|                               | LED (yellow) for relay ON   |  |
| Overvoltage category          | III conforming to IEC 60664-1   |  |
| [Ui] rated insulation voltage | 400 V conforming to IEC 60664-1   |  |
| Connections - terminals       | Screw terminals, 1 x 0.51 x 4 mm² (AWG 20AWG 11) solid without cable end  |  |
|                               | Screw terminals, 2 x 0.52 x 2.5 mm² (AWG 20AWG 14) solid without cable end  |  |
|                               | Screw terminals, 1 x 0.22 x 2.5 mm² (AWG 24AWG 12) flexible with cable end Screw terminals, 2 x 0.22 x 1.5 mm² (AWG 24AWG 16) flexible with cable end |  |
| Tightening torque             | 0.61 N.m conforming to IEC 60947-1  |  |
| Housing material              | Self-extinguishing plastic  |  |
| Mounting support              | 35 mm symmetrical DIN rail conforming to IEC 60715  |  |
| Electrical durability         | 10000 cycles  |  |
| Mechanical durability         | 30000000 cycles   |  |
| Operating rate                | <= 360 operations/hour full load  |  |
| Utilisation category          | 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<br>DC-13 conforming to IEC 60947-5-1  |  |
|                               | DC-14 conforming to IEC 60947-5-1   |  |
| [Un] rated nominal voltage    | , self-powered  |  |
| Safety reliability data       | B10d = 300000   |  |
|                               | MTTFd = 319.6 years   |  |
| Control type                  | Without test button   |  |
| Width                         | 35 mm   |  |
| Net weight                    | 0.08 kg   |  |
|                               |   |  |
|                               |   |  |

| Electromagnetic compatibility         | 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 |  |
|---------------------------------------|--|--|
| Ambient air temperature for operation | -2050 °C   |  |
| Vibration resistance                  | 0.35 mm (f= 557.6 Hz) conforming to IEC 60068-2-6<br>1 gn (f= 57.6150 Hz) conforming to IEC 60255-21-1   |  |
| Shock resistance                      | 5 gn conforming to IEC 60068-2-27  |  |
| Standards                             | IEC 60255-1  |  |
| Product certifications                | C-Tick<br>GOST<br>CSA<br>GL<br>UL  |  |
| Ambient air temperature for storage   | -4070 °C   |  |
| Relative humidity                     | 95 % at 55 °C conforming to IEC 60068-2-30   |  |

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

# **Packing Units**

| Unit Type of Package 1       | PCE       |
|------------------------------|-----------|
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 4.500 cm  |
| Package 1 Width              | 7.800 cm  |
| Package 1 Length             | 9.700 cm  |
| Package 1 Weight             | 133.000 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 48        |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 6.649 kg  |

# **Contractual warranty**

Warranty 18 months



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        |                               |
|----------------------------------|-------------------------------|
| Total lifecycle Carbon footprint | 99                            |
| Environmental Disclosure         | Product Environmental Profile |

#### **Use Better**

| 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) |

#### **Use Again**

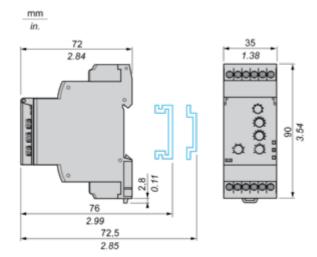
| ○ Repack and remanufacture      |                         |
|---------------------------------|-------------------------|
| End of life manual availability | End of Life Information |
| Take-back                       | No                      |

# RM35UB330

# **Dimensions Drawings**

# 3-Phase Voltage Control Relays

#### **Dimensions and Mounting**



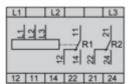
# **Product datasheet**

# RM35UB330

Connections and Schema

# 3-Phase Voltage Control Relays

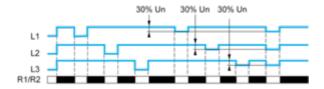
# Wiring Diagram



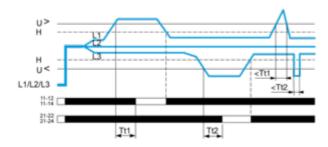
#### **Technical Description**

#### **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 (adjustable on front panel from 0.3 s to 30 s)

Tt2 Undervoltage threshold delay (adjustable on front panel 0.3 s to 30 s)

**H** Hysteresis

U> Overvoltage threshold

U< Undervoltage threshold

L1, L2, L3 Phases of the supply voltage monitored

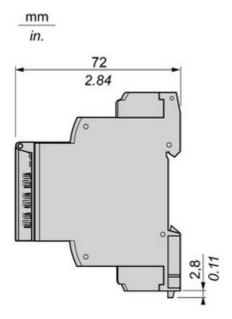
11-12, 11-14 R1 output relay connections (refer to Connections and Schema)

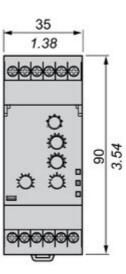
21-22, 21-24 R2 output relay connections (refer to Connections and Schema)

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



Image of product / Alternate images

#### **Alternative**



