



## Main

Range of product	Zelio Control
Product or component type	Modular measurement and control relays
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 neutral Overvoltage and undervoltage between phases
Time delay type	Adjustable 0.3...30 s, 0 + 10 % on crossing the threshold
Switching capacity in VA	1250 VA
Minimum switching current	10 mA at 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 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

## 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
Measuring cycle	<= 150 ms measurement cycle as true rms value
Hysteresis	2 %
Run-up delay at power-up	
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 conforming to IEC 60664-1
Insulation resistance	> 500 MOhm > 500 MOhm IEC 60255-5 conforming to IEC 60255-5 conforming to IEC 60255-5 IEC 60255-5 IEC 60255-5 IEC 60255-5 - 500 V at 500 V at 500 V DC DC DC DC DC DC conforming to IEC 60255-5, conforming to IEC 60255-5 conforming to IEC 60255-5 IEC 60255-5 c
[Ui] rated insulation voltage	400 V conforming to IEC 60664-1
Operating position	Any position without derating
Connections - terminals	Screw terminals 1 x 0.5...1 x 4 mm <sup>2</sup> - AWG 20...AWG 11, solid cable without cable end Screw terminals 2 x 0.5...2 x 2.5 mm <sup>2</sup> - AWG 20...AWG 14, solid cable without cable

The information provided in this documentation contains general descriptions and/or technical characteristics of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

	end Screw terminals 2 x 0.2...2 x 1.5 mm <sup>2</sup> - AWG 24...AWG 16, flexible cable with cable end end Screw terminals 1 x 0.2...2 x 2.5 mm <sup>2</sup> - AWG 24...AWG 12, flexible cable with cable end
Tightening torque	5.31...8.85 lbf.in (0.6...1 N.m) conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED green power ON LED yellow relay ON
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 under full load
Safety reliability data	MTTFd = 502.2 years B10d = 470000
Width	1.38 in (35 mm)
Product weight	0.18 lb(US) (0.08 kg)

## Environment

electromagnetic compatibility	Emission standard for industrial environments conforming to EN/IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to EN/IEC 61000-6-3 Immunity for industrial environments conforming to NF EN/IEC 61000-6-2
standards	EN/IEC 60255-1
product certifications	CSA C-Tick GL GOST UL
directives	89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive
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 % at 131 °F (55 °C) conforming to IEC 60068-2-30
vibration resistance	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
shock resistance	5 gn conforming to IEC 60068-2-27
IP degree of protection	IP20(terminals) conforming to IEC 60529 IP30 (casing) conforming to IEC 60529
pollution degree	3 conforming to IEC 60664-1
dielectric test voltage	2 kV AC 50 Hz, 1 min
non-dissipating shock wave	4 kV

## Offer Sustainability

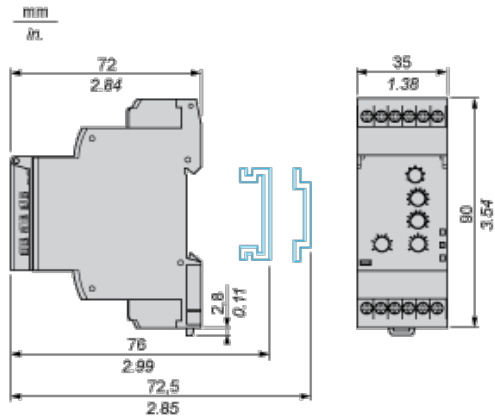
Green Premium product	Green Premium product
Compliant - since 0701 - Schneider Electric declaration of conformity	Compliant - since 0701 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available
WARNING: This product can expose you to chemicals including:	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.	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 <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>	For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a>

## Contractual warranty

Warranty period	18 months
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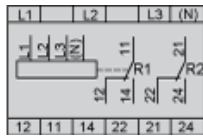
## 3-Phase Voltage Control Relays

### Dimensions and Mounting



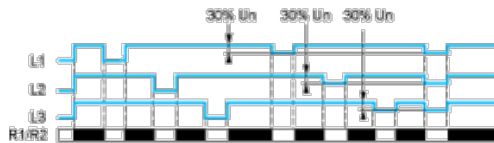
## 3-Phase Voltage Control Relays

### Wiring Diagram

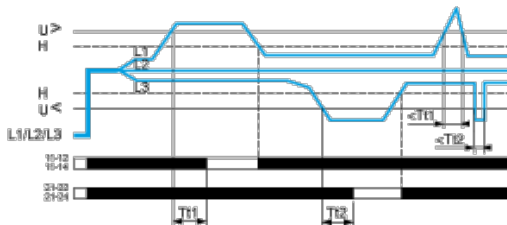


### Function Diagrams

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



#### Control of Overvoltage and Undervoltage



#### Legend

$U_n$  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.