



## 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	<= 22 VA at 400 V AC 50 Hz
Measurement range	194...528 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 for time delay
Maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	220...480 V AC, 50/60 Hz +/- 10 %
Supply voltage limits	194...528 V AC
Voltage detection threshold	194 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	<= 650 ms
Measurement accuracy	+/- 10 % of the full scale value
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
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 at 500 V DC conforming to IEC 60255-5 > 500 MOhm at 500 V DC conforming to IEC 60664-1
[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 end Screw terminals 2 x 0.2...2 x 1.5 mm <sup>2</sup> - AWG 24...AWG 16, flexible cable with cable

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	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	LED green for power ON LED yellow for 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	B10d = 300000 MTTFd = 319.6 years
Width	35 mm
Product weight	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...70 °C
ambient air temperature for operation	-20...50 °C
relative humidity	95 % at 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

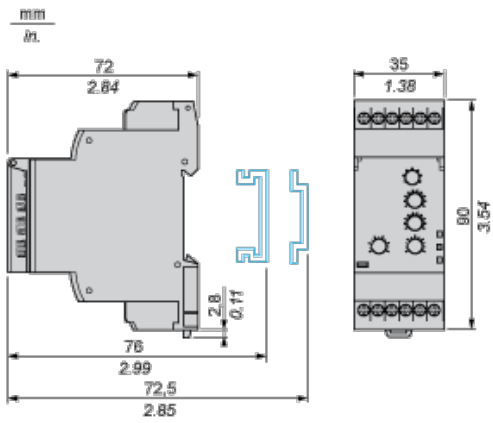
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0701 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

## Contractual warranty

Warranty period	18 months
-----------------	-----------

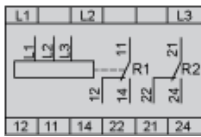
## 3-Phase Voltage Control Relays

### Dimensions and Mounting



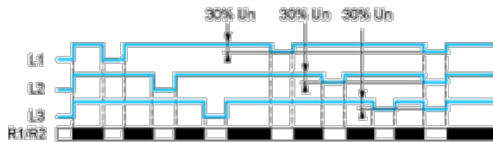
### 3-Phase Voltage Control Relays

#### Wiring Diagram

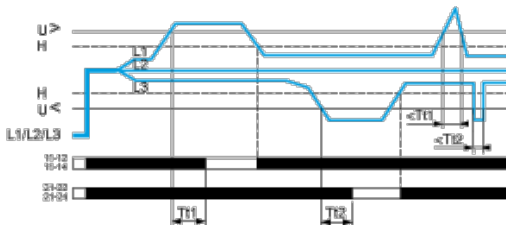


#### Function Diagrams

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



##### Control of Overvoltage and Undervoltage



#### Legend

$U_n$  Nominal supply voltage

$T_{t1}$  Overvoltage threshold delay (adjustable on front panel from 0.3 s to 30 s)

$T_{t2}$  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.