



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	Overvoltage and undervoltage between phases Overvoltage and undervoltage between neutral Absence of neutral
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 ² - AWG 20...AWG 11, solid cable without cable end Screw terminals 2 x 0.5...2 x 2.5 mm ² - AWG 20...AWG 14, solid cable without cable end Screw terminals 2 x 0.2...2 x 1.5 mm ² - AWG 24...AWG 16, flexible cable with cable end Screw terminals 1 x 0.2...2 x 2.5 mm ² - 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	C-Tick UL GL CSA GOST
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

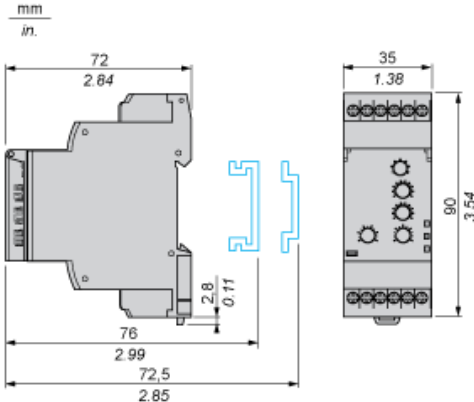
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0701 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental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

Contractual warranty

Warranty period	18 months
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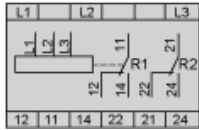
3-Phase Voltage Control Relays

Dimensions and Mounting



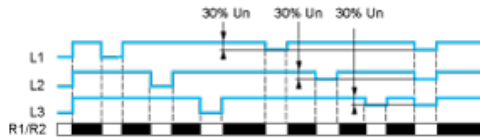
3-Phase Voltage Control Relays

Wiring Diagram



Function Diagrams

Phase Failure Detection (U measured $< 0.7 \times$ 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.