

Product datasheet

Specifications



Harmony 3 phase voltage monitoring relay, Range 208 to 480 VAC, phase sequence, phase failure, 1 CO

RM10TG00N

Main

Range of product	Harmony Control Relays
Relay type	Control relay
Product or component type	3-phase control relay
Relay name	RM10TG
Relay monitored parameters	Phase sequence Phase failure detection
Measurement range	208...480 V AC
Time delay type	Without
Output contacts	1 C/O
nominal output current	5 A
Product specific application	For 3-phase supply

Complementary

Supply voltage limits	183...528 V AC, 3 phases
[Ie] rated operational current	5 A 250 V AC-1 conforming to IEC 60947-5-1 5 A 28 V DC-1 conforming to IEC 60947-5-1 1.5 A 240 V AC-15 conforming to IEC 60947-5-1 2 A 24 V DC-13 conforming to IEC 60947-5-1
Reset time	1.5 s time delay
Power consumption in VA	0...4.5 VA
Voltage detection threshold	< 138 V AC
delay at power up	1.5 s
Voltage range	208...480 V
Response time	< 200 ms (in the event of a fault)
Insulation resistance	> 100 MOhm at 500 V DC
[Ui] rated insulation voltage	400 V
Supply frequency	47...63 Hz
Connections - terminals	Screw terminals, 2 x 0.5...2 x 1.5 mm ² (AWG 20...AWG 16) solid with or without cable end
Tightening torque	0.5...0.7 N.m
Housing material	Polycarbonate
Local signalling	LED (green) for ST (status)
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715
Electrical durability	100000 cycles

Mechanical durability	10000000 cycles
Safety reliability data	MTTFd = 158 years
Height	58.5 mm
Width	18 mm
Depth	90 mm
Net weight	75 g

Environment

Electromagnetic compatibility	conforming to IEC 61000-6-4 conforming to IEC 61000-6-3 conforming to IEC 61000-6-2
Standards	IEC 60255-1
Product certifications	cULus CE UKCA CCC
Marking	CULus CE UKCA CCC
Directives	89/336/EEC - electromagnetic compatibility 73/23/EEC - low voltage directive
Ambient air temperature for storage	-20...80 °C
Ambient air temperature for operation	-15...60 °C
Relative humidity	10...95 %
Shock resistance	30 gn for 6 ms
IP degree of protection	IP20 (terminals) IP40 (casing)
Pollution degree	2
Overvoltage category	II
Dielectric test voltage	1.89 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	2.500 cm
Package 1 Width	7.000 cm
Package 1 Length	11.000 cm
Package 1 Weight	85.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	48
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	4.670 kg

Contractual warranty

Warranty (in months)

18



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

Total lifecycle Carbon footprint	81 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	0 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	0 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0 kg CO2 eq.

Use Better



Materials and Substances

EU RoHS Directive	Compliant By Exemption
REACH Regulation	Reference contains Substances of Very High Concern above the threshold

Use Longer



Lifetime extension

Repair	No
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Use Again

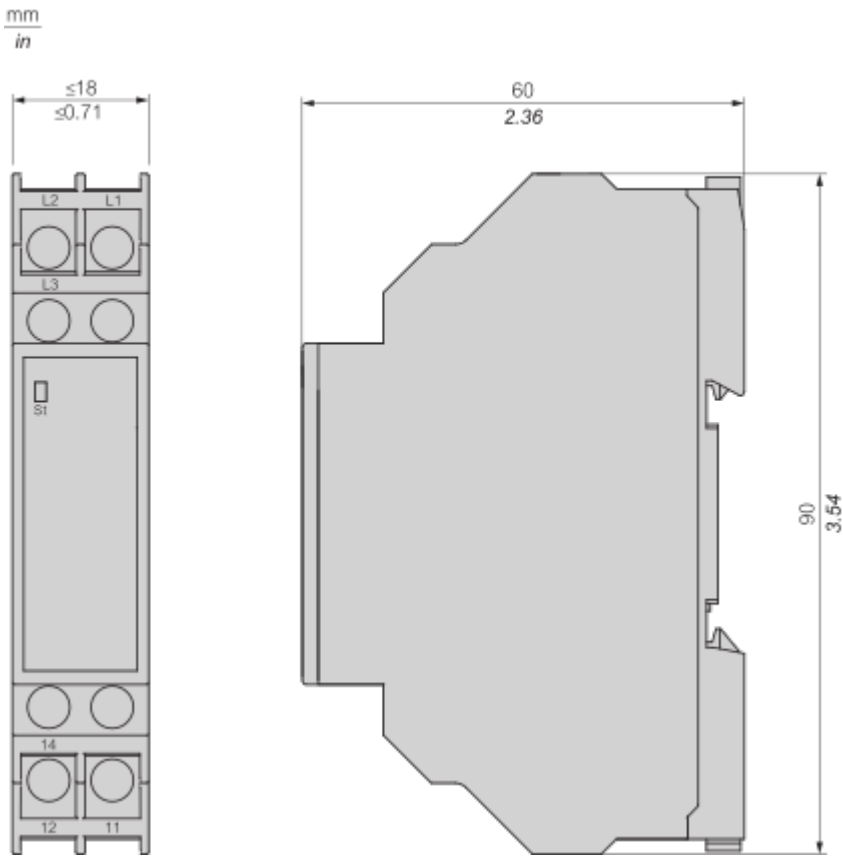


Repack and remanufacture

Recyclability potential, in %	70
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

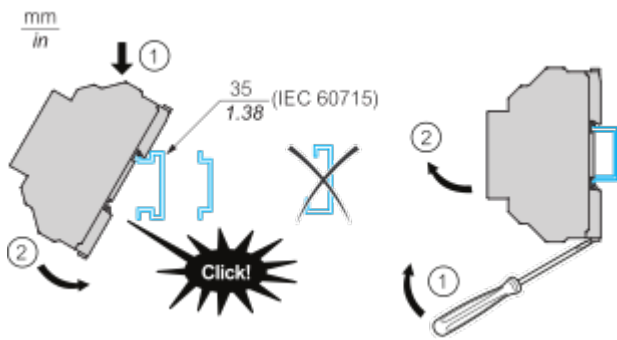
Dimensions Drawings

Dimension



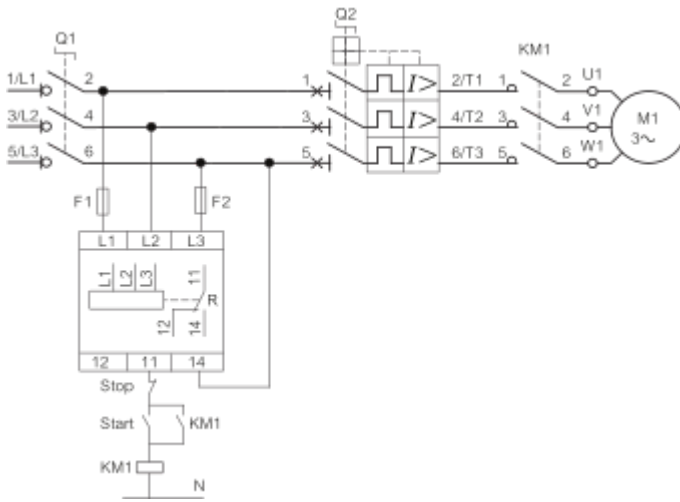
Mounting and Clearance

Mounting

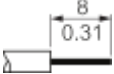


Connections and Schema

Wiring



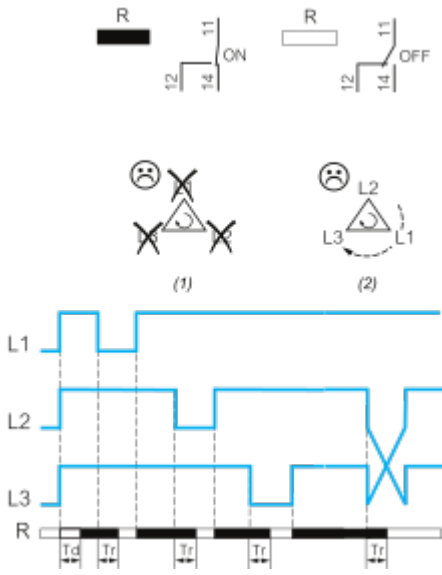
NOTE:

- Use copper conductors only
- TORQUE : 0.5...0.7 N.m (4.4...6.2 lbf.in)
-  2x (0.5...1.5mm² / 20...16AWG)

Technical Description

Function Diagram

Phase Loss & Phase Sequence

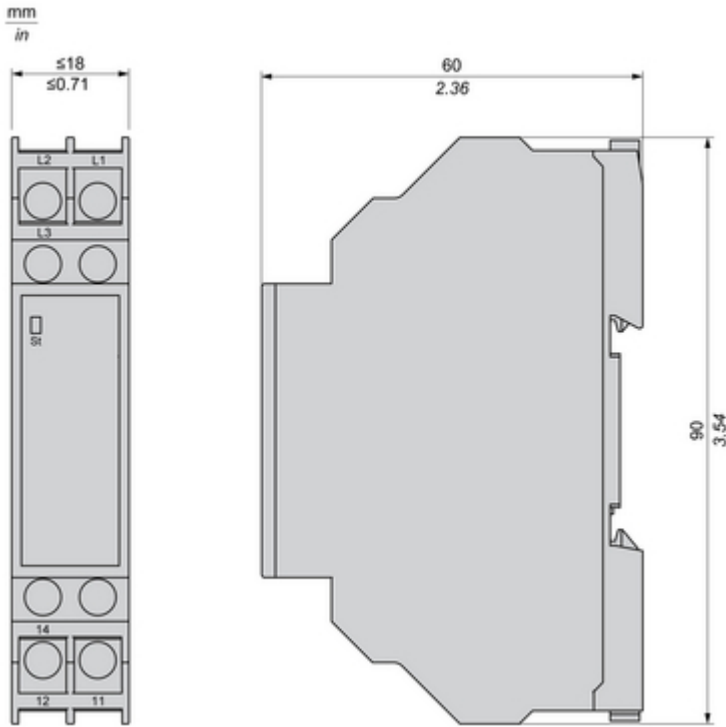


Td : Delay at power up
 Tr : Response time
 R : Relay
 (1) : Phase Loss
 (2) : Phase Sequence Fault

LED	Status		
	Normal	Phase Seq. Fault	Phase Loss
St	ON	BLINKING	OFF
R			

Technical Illustration

Dimensions



Offer Marketing Illustration

Product benefits / Features

Technical Benefits

Harmony Control Relay

Compliant with IEC 60255-1 standard, and a wide array of product certifications such as UL, CE, CSA, EAC.

Different product width to meet your needs:
17.5 mm/0.69 in.,
22.5 mm/0.88 in.,
35 mm/1.38 in.

Diagnostic button to check downstream circuit immediately, shorten the commission and troubleshooting time

Dust and unintended human intervention avoided thanks to the IP50 lead-sealable settings protection cover.

A Dial-Pointer LED indicator that enhances ease of operation in difficult environments such as dusty or low-light conditions



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-CO₂ product

Compatible with a wide range of applications, such as hoisting, packaging, lifts, textile, pumping, and water.

Image of product / Alternate images

Alternative





