

Product data sheet

Specifications



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

RM10TE00N

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

Range of Product	Harmony Control Relays
Relay Type	Control relay
Product or Component Type	3-phase control relay
Relay name	RM10TE
Relay monitored parameters	Phase sequence Phase failure detection Asymmetry Overvoltage and undervoltage detection
Measurement range	208...480 V AC
Time delay type	Adjustable 0...100 s, +/- 10 % of the full scale value
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 phase
[Ie] rated operational current	5 A 250 V AC-1 IEC 60947-5-1 5 A 28 V DC-1 IEC 60947-5-1 1.5 A 240 V AC-15 IEC 60947-5-1 2 A 24 V DC-13 IEC 60947-5-1
Reset time	1.5 s time delay
Power consumption in VA	0...4.5 VA
Voltage detection threshold	< 175 V AC
Hysteresis	2 %
delay at power up	5 s
Maximum measuring cycle	150 ms measurement cycle as true rms value
Voltage range	208...480 V
Repeat accuracy	0.5 % input and measurement circuit 3 % time delay
Measurement error	< 0.05 %/°C with temperature variation < 1 % over the whole range with voltage variation
Response time	< 550 ms (in the event of a fault)
Insulation resistance	> 100 MOhm 500 V DC
[Ui] rated insulation voltage	400 V

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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	4.4...6.2 lbf.in (0.5...0.7 N.m)
Housing material	Polycarbonate
Local signalling	LED (green) for ST (status) LED (red) for overvoltage LED (red) for undervoltage LED (red) for alarm asymmetry failure triggered
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	2.3 in (58.5 mm)
Width	0.7 in (18 mm)
Depth	3.5 in (90 mm)
Net Weight	2.6 oz (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
Ambient Air Temperature for Storage	-4...176 °F (-20...80 °C)
Ambient air temperature for operation	5...140 °F (-15...60 °C)
Relative humidity	10...95 %
Shock resistance	30 gn 6 ms
IP degree of protection	IP20 terminals) IP40 casing)
Pollution degree	2
Overvoltage category	II
Dielectric test voltage	1.89 kV AC 50 Hz, 1 min
Non-dissipating shock wave	4 kV

Ordering and shipping details

Category	US10CP222370
Discount Schedule	0CP2
GTIN	3606487344698
Returnability	Yes

Country of origin	IN
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Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.984 in (2.500 cm)
Package 1 Width	2.756 in (7.000 cm)
Package 1 Length	4.331 in (11.000 cm)
Package weight(Lbs)	2.998 oz (85.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	48
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	10.421 lb(US) (4.727 kg)

Contractual warranty

Warranty (in months)	18
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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 with Exemptions
REACH Regulation	REACH Declaration
California proposition 65	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. For more information go to www.P65Warnings.ca.gov

Use Longer



Lifetime extension

Repair	No
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Use Again

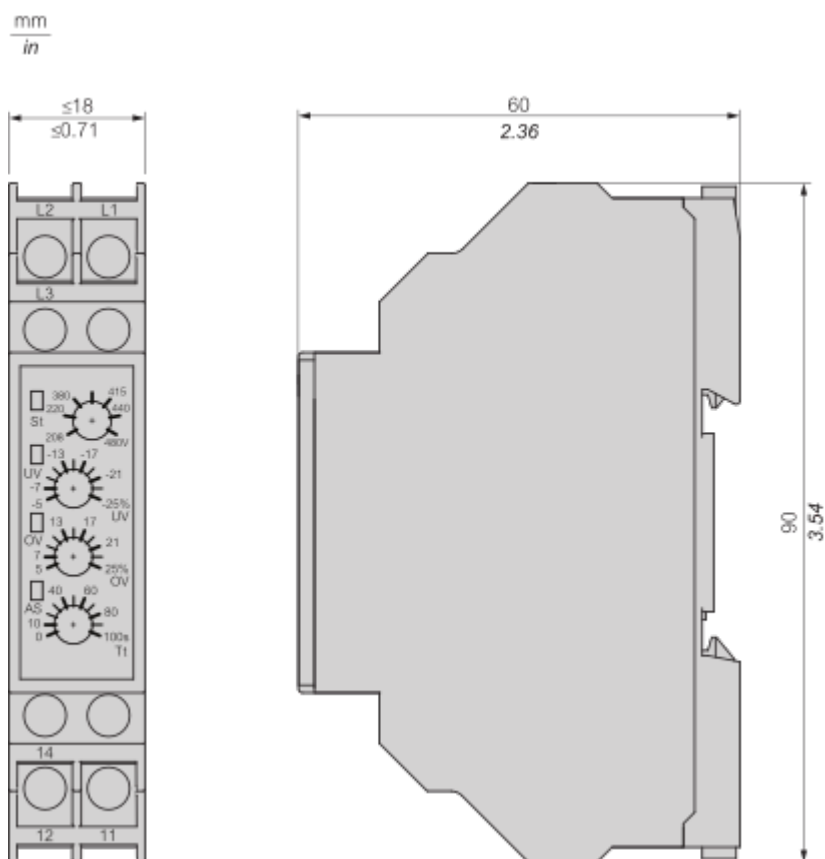


Repack and remanufacture

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.

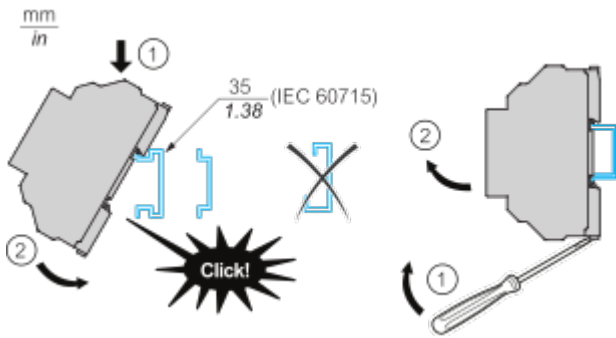
Dimensions Drawings

Dimensions



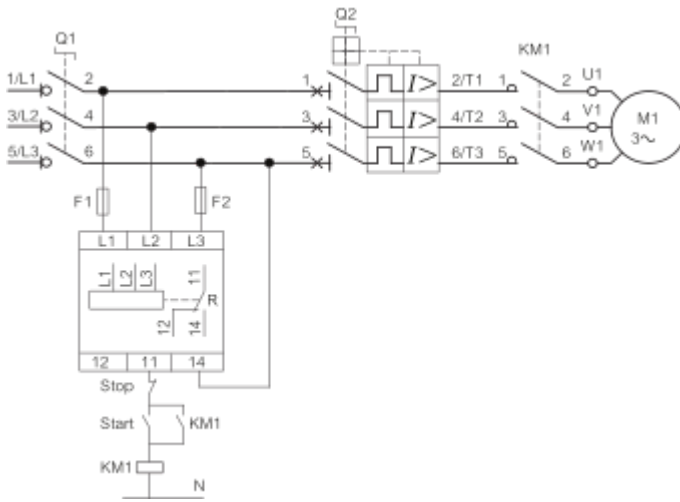
Mounting and Clearance

Mounting



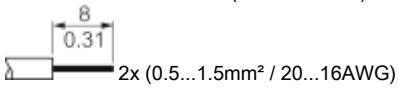
Connections and Schema

Wiring



NOTE:

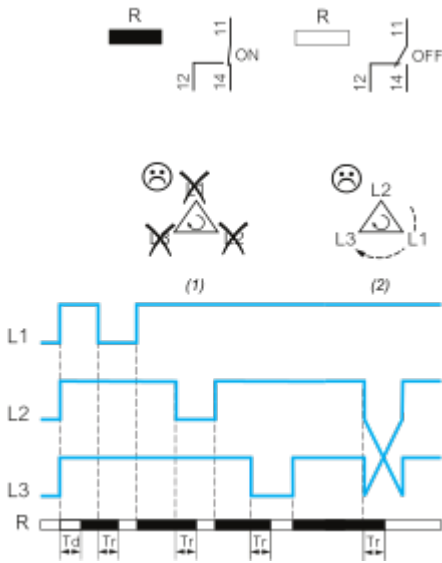
- Use copper conductors only
- TORQUE : 0.5...0.7 N.m (4.4...6.2 lbf.in)



Technical Description

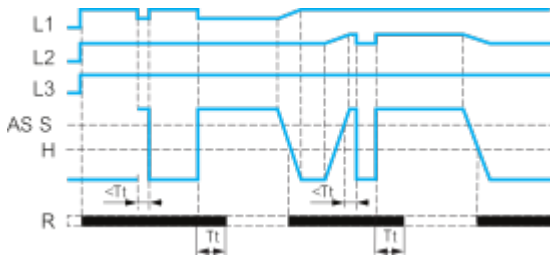
Function Diagram

Phase Loss & Phase Sequence



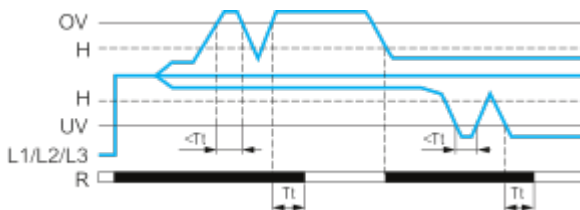
- Td : Delay at power up
- Tr : Response time
- R : Relay
- (1) : Phase Loss
- (2) : Phase Sequence Fault

Asymmetry







- AS S : Asymmetry Setting
- H : Hysterisis 2% fixed
- Tt : On delay

Over Voltage (OV) & Under Voltage (UV)



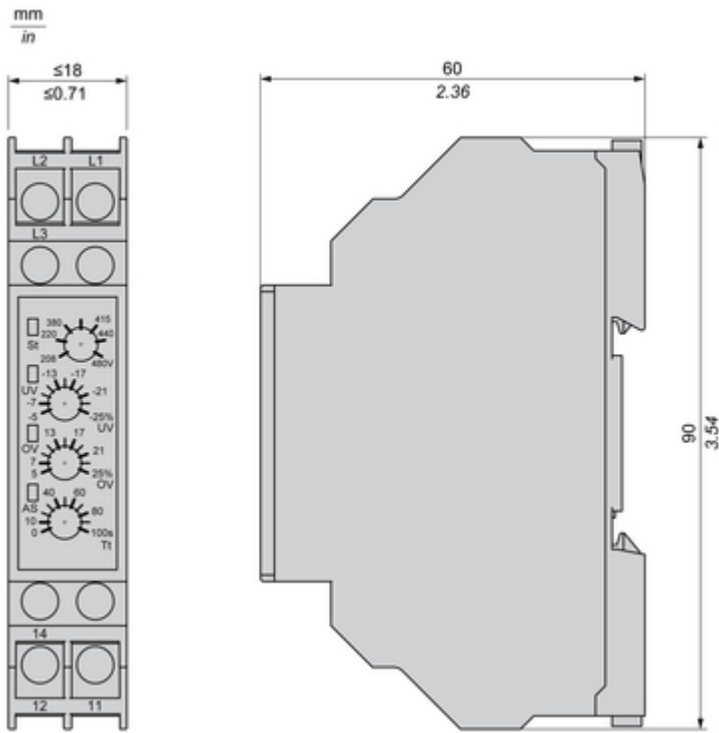
- OV : Over voltage setting
- UV : Under voltage setting
- H : Hysterisis 2% fixed

LED	Status
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	Normal	Phase Seq. Fault	Phase Loss	UV/OV/AS Fault
St	ON	BLINKING	OFF	ON
UV/OV/AS	OFF	OFF	OFF	ON
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.

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

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

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



