Product datasheet

Specifications



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

RM10TE00N

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 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	< 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 % for input and measurement circuit 3 % for 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 at 500 V DC
[Ui] rated insulation voltage	400 V
Supply frequency	47...63 Hz

Disclaimer: 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

Connections - terminals	Screw terminals, 2 x 0.5...2 x 1.5 mm² (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) LED (red) for overvoltage LED (red) for undervoltage LED (red) for alarm asymmentry 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	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
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	4.727 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

Use Better

Materials and Substances

EU RoHS Directive	Compliant with Exemptions
REACh Regulation	REACh Declaration

Use Longer

Lifetime extension

Repair	No

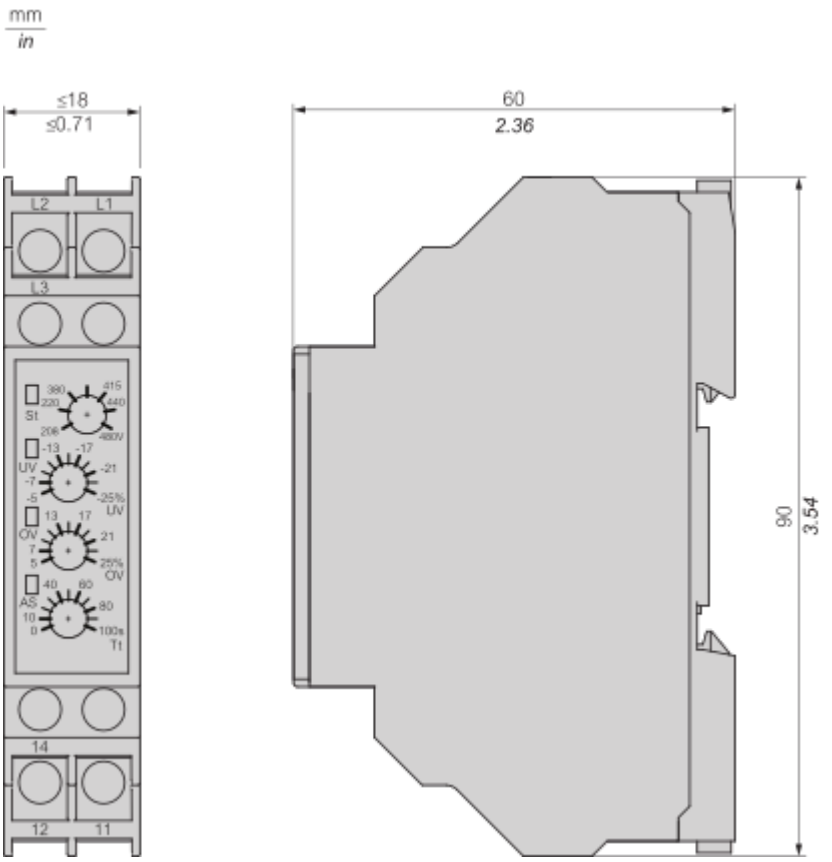
Use Again

Repack and remanufacture

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

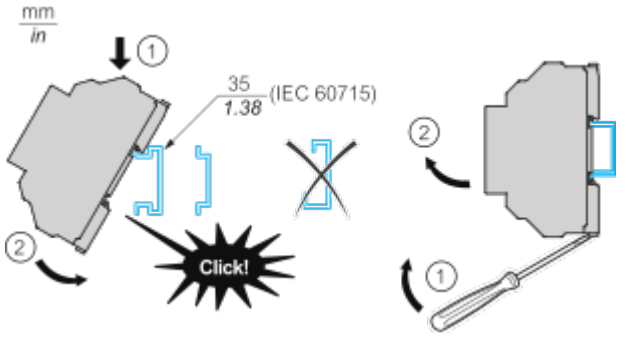
Dimensions Drawings

Dimensions



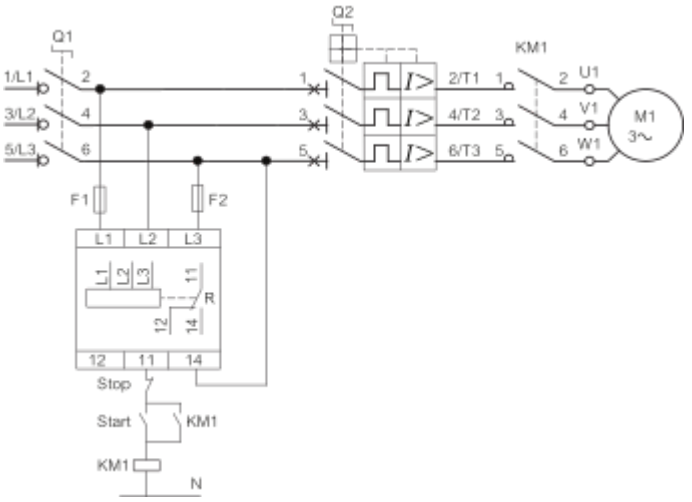
Mounting and Clearance

Mounting

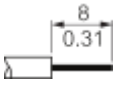


Connections and Schema

Wiring



NOTE:

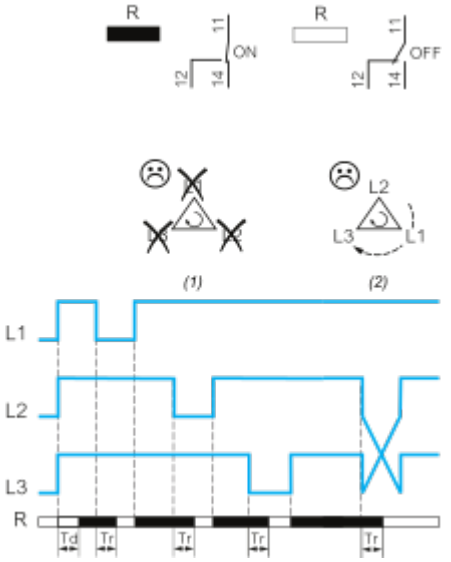
- Use copper conductors only
- TORQUE : 0.5…0.7 N.m (4.4…6.2 lbf.in)
- 

2x (0.5...1.5mm² / 20...16AWG)

Technical Description

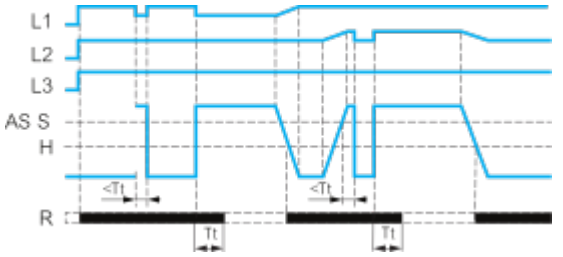
Function Diagram

Phase Loss & Phase Sequence



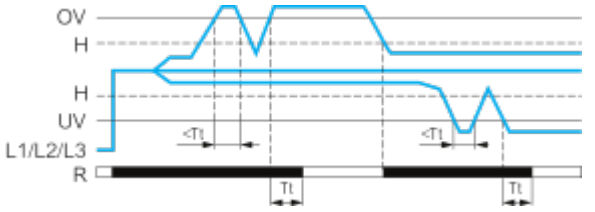
Td : Delay at power up
Tr : Response time
R : Relay
(1) : Phase Loss
(2) : Phase Sequence Fault

Asymmetry



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

Over Voltage (OV) & Under Voltage (UV)



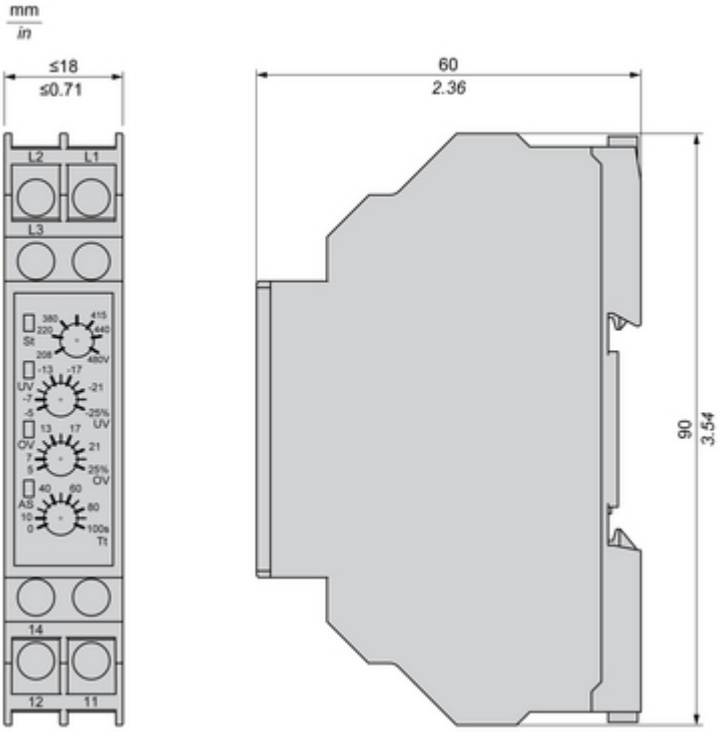
OV : Over voltage setting
UV : Under voltage setting
H : Hysterisis 2% fixed

LED	Status

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

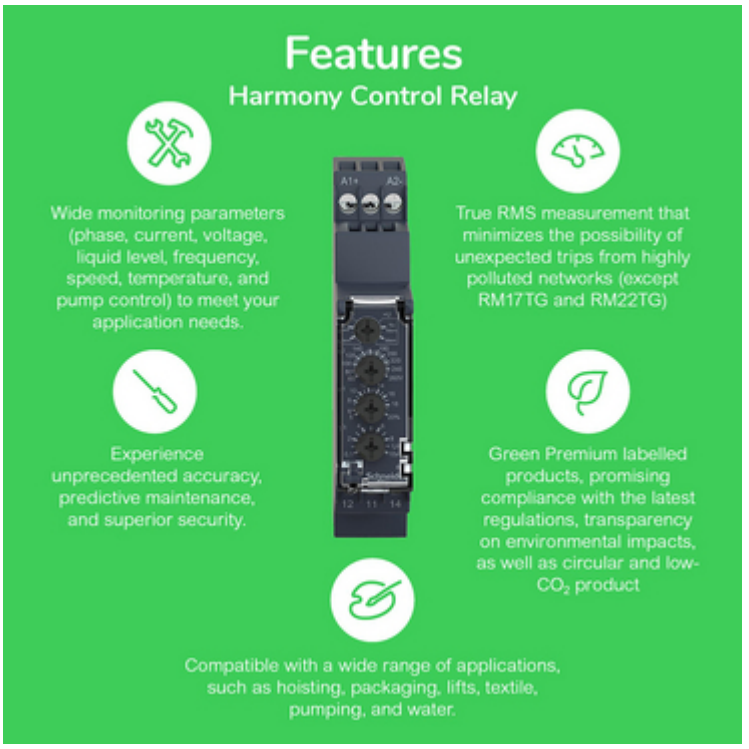
Technical Illustration

Dimensions



Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

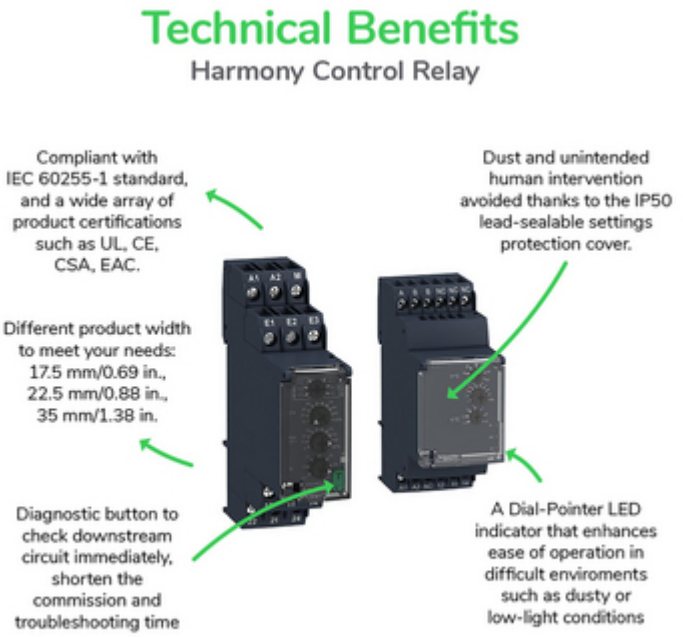
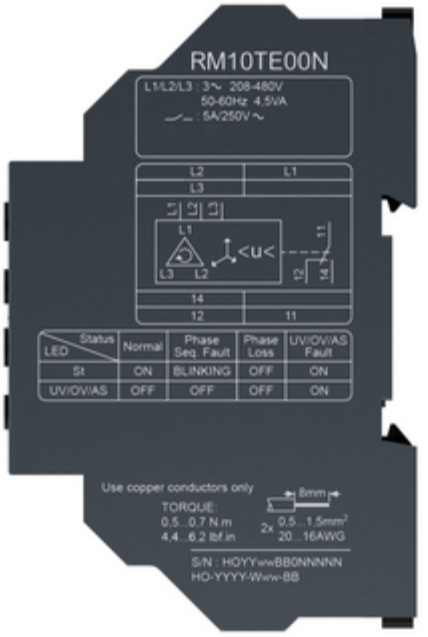


Image of product / Alternate images

Alternative






RM10TE00N
L1/L2/L3 : 3~ 208-480V
50-60Hz 4.5VA
: 5A/250V~
L2
L1
L3
L1
<u<
L3
L2
11
12
14
14
12
11
Status
LED
Normal
Phase Seq. Fault
Phase Loss
UV/OV/AS Fault
St
ON
BLINKING
OFF
ON
UV/OV/AS
OFF
OFF
OFF
ON
Use copper conductors only
8mm
TORQUE:
0.5...0.7 N.m
4.4...6.2 lbf.in
2x
0.5...1.5mm²
20...16AWG
S/N : HOYYwwBB0NNNNN
HO-YYYY-Www-BB




14
12
11


L2
L1
L3
RM10TE00N
St
UV
OV
AS
Schneider
14
12
11