

# Product datasheet

Specifications



## motor voltage and temperature control relay - RM35-T - 24..240 V AC/DC - 2 NO

RM35TM50MW

### Main

Range of product	Harmony Control Relays
Relay type	Motor temperature control relay
Product or component type	Motor temperature control relay
Product specific application	For 3-phase supply
Relay name	RM35TM
Relay monitored parameters	Phase sequence Motor temperature via PTC probe Phase failure detection
Measurement range	208...480 V AC 15...3100 Ohm
time delay	Without
Output contacts	2 NO
Nominal output current	5 A
Contacts type and composition	2 NO
[Uc] control circuit voltage	24...240 V

### Complementary

[Un] rated nominal voltage	24...240 V AC/DC 50/60 Hz, non self-powered
Supply voltage limits	20.4...264 V AC 20.4...264 V DC
Reset time	10000 ms output
Maximum switching voltage	250 V AC 250 V DC
Switching capacity in VA	1250 VA
Minimum switching current	10 mA at 5 V DC
Maximum switching current	5 A AC 5 A DC
Power consumption in VA	0...4 VA at 24...240 V AC
power consumption	0.5 W DC
Control circuit frequency	50...60 Hz +/- 10 %
Resistance across terminals	602 mOhm
Measurement voltage limits	176...528 V AC
delay at power up	500 ms
Voltage range	176...528 V

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

<b>Response time</b>	> 50 ms (input Y1 (contact Y1-T1) and push-button)
<b>[Uc] control circuit voltage</b>	<= 3.6 V of temperature control circuit (T1-T2 terminals open)
<b>Short-circuit current</b>	0.007 A temperature sensing circuit (T1-T2 terminals short circuited)
<b>Maximum resistance</b>	1500 Ohm for temperature sensor at 20 °C
<b>Tripping threshold</b>	3100 Ohm +/- 10 % for temperature control circuit
<b>Reset threshold</b>	1650 Ohm +/- 10 % for temperature control circuit
<b>Insulation resistance</b>	> 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60255-5 > 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60664-1 > 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60255-5 > 500 MOhm at 500 V DC between supply and relay output conforming to IEC 60664-1 > 500 MOhm at 500 V DC between measurement and relay output conforming to IEC 60255-5 > 1 MOhm at 500 V DC between supply and measurement conforming to IEC 60664-1
<b>[Ui] rated insulation voltage</b>	400 V conforming to IEC 60664-1
<b>Supply frequency</b>	50/60 Hz +/- 10 %
<b>Operating position</b>	Any position without derating
<b>Connections - terminals</b>	Screw terminals, 1 x 0.5...1 x 4 mm <sup>2</sup> (AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> (AWG 24...AWG 12) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> (AWG 24...AWG 16) flexible with cable end
<b>Tightening torque</b>	0.6...1 N.m conforming to IEC 60947-1
<b>Housing material</b>	Self-extinguishing plastic
<b>Local signalling</b>	LED (green) for power ON LED (yellow) for phase of relay (R2) LED (yellow) for temperature of relay (R1)
<b>Mounting support</b>	35 mm symmetrical DIN rail conforming to IEC 60715
<b>Electrical durability</b>	10000 cycles
<b>Mechanical durability</b>	30000000 cycles
<b>Operating rate</b>	<= 360 operations/hour full load
<b>Utilisation category</b>	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
<b>Width</b>	35 mm
<b>Net weight</b>	0.13 kg
<b>Control type</b>	Without test button

## Environment

<b>Immunity to microbreaks</b>	20 ms at 20.4 V
<b>Electromagnetic compatibility</b>	Emission standard for industrial environments conforming to IEC 61000-6-4 Emission standard for residential, commercial and light-industrial environments conforming to IEC 61000-6-3 Immunity for industrial environments conforming to IEC 61000-6-2
<b>Standards</b>	IEC 60255-6 IEC 60034-11-2

<b>Product certifications</b>	GL UL GOST C-Tick CSA
<b>Marking</b>	CE
<b>Directives</b>	73/23/EEC - low voltage directive 89/336/EEC - electromagnetic compatibility
<b>Ambient air temperature for storage</b>	-40...70 °C
<b>Ambient air temperature for operation</b>	-20...50 °C
<b>Relative humidity</b>	95 % at 55 °C conforming to IEC 60068-2-30
<b>Vibration resistance</b>	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
<b>Shock resistance</b>	15 gn for 11 ms conforming to IEC 60255-21-1
<b>IP degree of protection</b>	IP20 (terminals) conforming to IEC 60529 IP30 (casing) conforming to IEC 60529
<b>Pollution degree</b>	3 conforming to IEC 60664-1
<b>Overvoltage category</b>	III conforming to IEC 60664-1
<b>Dielectric test voltage</b>	2 kV, 1 min AC 50 Hz
<b>Non-dissipating shock wave</b>	4 kV

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	4.300 cm
<b>Package 1 Width</b>	7.800 cm
<b>Package 1 Length</b>	9.500 cm
<b>Package 1 Weight</b>	127.000 g
<b>Unit Type of Package 2</b>	S03
<b>Number of Units in Package 2</b>	48
<b>Package 2 Height</b>	30.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	7.000 kg

## Contractual warranty

<b>Warranty</b>	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency

## Well-being performance



Mercury Free

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**Reach Regulation**

[REACH Declaration](#)

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**Eu Rohs Directive**

Pro-active compliance (Product out of EU RoHS legal scope)

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**China Rohs Regulation**

[China RoHS declaration](#)

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**Environmental Disclosure**

[Product Environmental Profile](#)

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**Circularity Profile**

[End of Life Information](#)

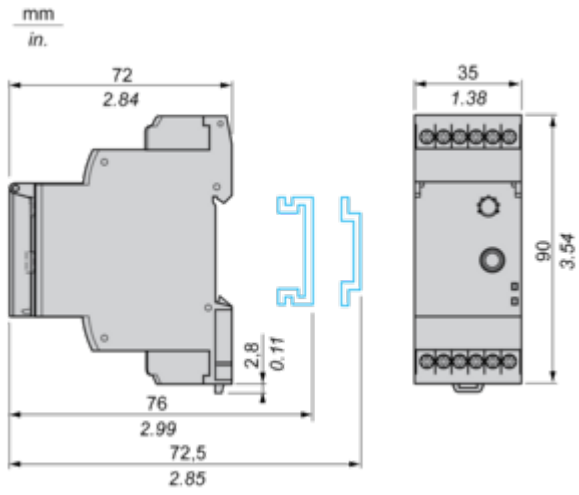
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Dimensions Drawings

3-Phase Supply and Motor Temperature Control Relays

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Dimensions and Mounting

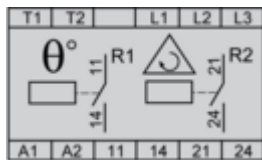


Connections and Schema

3-Phase Supply and Motor Temperature Control Relays

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Wiring Diagram

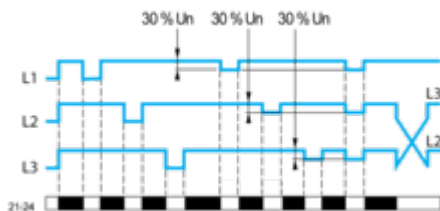


Technical Description

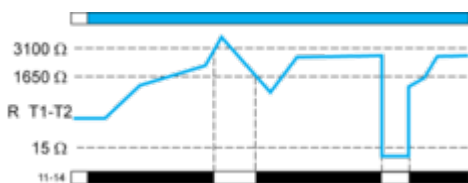
Function Diagrams

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Phase Sequence Control and Phase Failure Detection (U measured < 0.7 x nominal supply voltage)



Motor Temperature Control via PTC Probe



Legend

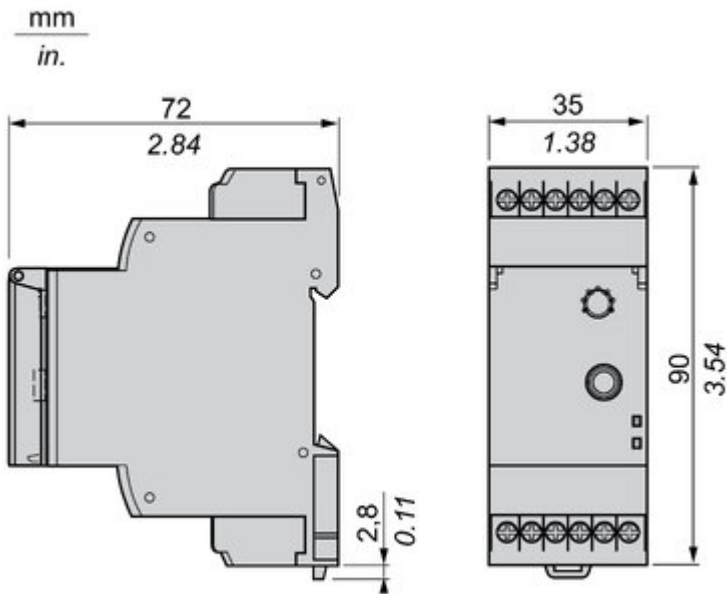
- Un Nominal 3-phase supply voltage
- R T1-T2 Resistance between terminals T1 and T2
- 11-14 R1 output relay connections
- Relay status: black color = energized.

**NOTE:** The temperature control relay can take up to 6 PTC (positive temperature coefficient) probes wired in series between terminals T1 and T2.

Technical Illustration

Dimensions

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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-CO<sub>2</sub> product



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

Image of product / Alternate images

Alternative

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