



**Main**

Range of product	Harmony Control Relays
Product or component type	Temperature control relay
Relay type	Temperature control relays
Product specific application	For elevator machine rooms and 3-phase supplies
Relay name	RM35AT
Relay monitored parameters	Phase sequence Phase failure detection Undertemperature: -1...11°C Overtemperature: 34...46°C
Time delay range	0.1...10 s adjustable delay (tolerance: 0...10 % of the full scale value)
Switching capacity in VA	1250 VA
Minimum switching current	10 mA at 5 V DC
Maximum power consumption in VA	3.5 VA AC
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	8 s
Maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	24...240 V AC/DC
[Us] rated supply voltage	24...240 V AC/DC
Supply voltage limits	20.4...264 V AC 21.6...264 V DC
Maximum power consumption in W	0.6 W DC
Resistance across terminals	600 KOhm at 3-phase 1.33 kOhm at temperature
Width	35 mm
Output contacts	2 NO
Contacts material	Cadmium free
Nominal output current	5 A
Delay at power up	0.2 s
Measurement accuracy	+/- 2 °C
Response time	<= 3.5 s + Tt (in case of temperature fault) 500 ms (in case of 3-phase fault) 500 ms (on disappearance of fault)
Temperature probe type	Pt 100 - 3-wire
Installed device	Pt 100 probe cable length <= 10 m
Marking	CE : EMC 89/336/EEC CE : 73/23/EEC
Overvoltage category	III conforming to IEC 60664-1

Insulation resistance	> 500 MΩ at 500 V DC between supply and relay output conforming to IEC 60255-5 > 500 MΩ at 500 V DC between measurement and relay output conforming to IEC 60664-1 > 1 MΩ at 500 V DC between supply and measurement conforming to IEC 60255-5 > 500 MΩ at 500 V DC between supply and relay output conforming to IEC 60664-1 > 500 MΩ at 500 V DC between measurement and relay output conforming to IEC 60255-5 > 1 MΩ at 500 V DC between supply and measurement conforming to IEC 60664-1
[Ui] rated insulation voltage	400 V conforming to IEC 60664-1
Operating voltage tolerance	- 10 % + 10 % Un DC - 15 % + 10 % Un AC
Supply frequency	50/60 Hz +/- 10 %
Operating position	Any position without derating
Connections - terminals	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
Tightening torque	0.6...1 N.m conforming to IEC 60947-1
Housing material	Self-extinguishing plastic
Local signalling	1 LED green for power ON 1 LED yellow for correct temperature (high R1)/(low R2) 1 LED yellow for phases of relay
Mounting support	35 mm symmetrical DIN rail conforming to EN/IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load

## Environment

Immunity to microbreaks	10 ms
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	NF EN 60255-6 IEC 60255-6
Product certifications	GL UL C-Tick CSA GOST
Ambient air temperature for storage	-40...70 °C
Ambient air temperature for operation	-20...50 °C
Vibration resistance	0.35 mm (f= 5...57.6 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1 1 gn (f= 57.6...150 Hz) conforming to IEC 60068-2-6/IEC 60255-21-1
Shock resistance	15 gn for 11 ms conforming to IEC 60255-21-1
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, 1 min AC 50 Hz
Non-dissipating shock wave	4 kV

## Packing Units

Package 1 Weight	0.133 kg
Package 1 Height	0.780 dm
Package 1 width	0.440 dm
Package 1 Length	0.970 dm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<input checked="" type="checkbox"/> REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <input checked="" type="checkbox"/> EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	<input checked="" type="checkbox"/> Yes
China RoHS Regulation	<input checked="" type="checkbox"/> China RoHS Declaration
Environmental Disclosure	<input checked="" type="checkbox"/> Product Environmental Profile
Circularity Profile	<input checked="" type="checkbox"/> End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Contractual warranty

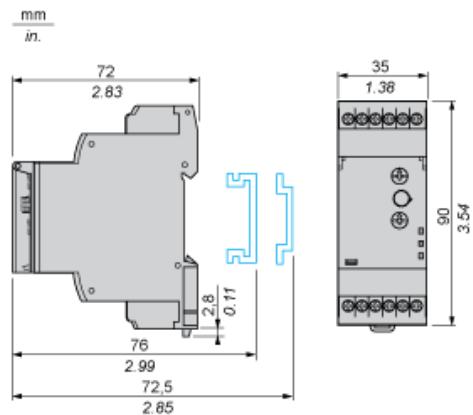
Warranty	18 months
----------	-----------

---

Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

---

Dimensions and Mounting

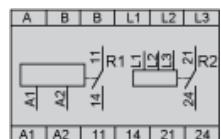


---

Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

---

Wiring Diagram

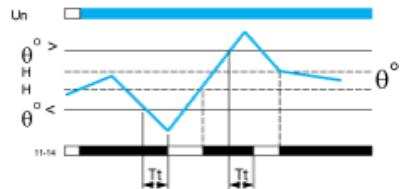


---

## Function Diagram

---

### Temperature Control by PT 100 Probe



### Legend

Tt Time delay after crossing of the temperature threshold

Un Supply voltage

$\theta^\circ$  Temperature monitored

$\theta^\circ >$  High temperature threshold

$\theta^\circ <$  Low temperature threshold

H Hysteresis

11-12, 11-14 R1 output relay connections

Relay status: black color = energized.