

## Product data sheet

### Characteristics

# RM35ATR5MW

Harmony Control Relays, Modular temperature control relay, 5 A , 2 NO, 24..240 V AC/DC



### Main

Range of product	Harmony Control Relays
Relay type	Temperature control relays
Product or component type	Elevator machine room temperature control relay
Product specific application	For elevator machine rooms and 3-phase supplies
Relay name	RM35AT
Relay monitored parameters	Overtemperature: 34...46°C Undertemperature: -1...11°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
Time delay	Adjustable 1...10 s Tt- time delay upon fault
Measurement range	+/- 1...46 °C

### Complementary

Reset time	8 s
Maximum switching voltage	250 V AC/DC
[Us] rated supply voltage	24...240 V AC/DC
[Un] rated nominal voltage	24...240 V AC/DC 50/60 Hz, non self-powered
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	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) <= 3.5 s (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 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
[Ui] rated insulation voltage	250 V conforming to IEC 60664-1
Operating voltage tolerance	- 10 % + 10 % Un DC - 15 % + 10 % Un AC
Supply frequency	50/60 Hz +/- 10 %
Insulation	Galvanic insulation between supply and measurement
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) 1 LED yellow for correct temperature (low R2)
Mounting support	35 mm symmetrical DIN rail conforming to IEC 60715
Electrical durability	100000 cycles
Mechanical durability	30000000 cycles
Operating rate	<= 360 operations/hour full load
Control type	Without test button

## Environment





Immunity to microbreaks	10 ms
Electromagnetic compatibility	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 NF EN/IEC 61000-6-2
Standards	IEC 60255-6 NF EN 60255-6
Product certifications	GL[RETURN]GOST[RETURN]C-Tick[RETURN]CSA[RETURN]UL
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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.52 cm
Package 1 Width	4.4 cm
Package 1 Length	9.7 cm
Package 1 Weight	131.0 g

Unit Type of Package 2	S03
Number of Units in Package 2	48
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.001 kg

### Offer Sustainability

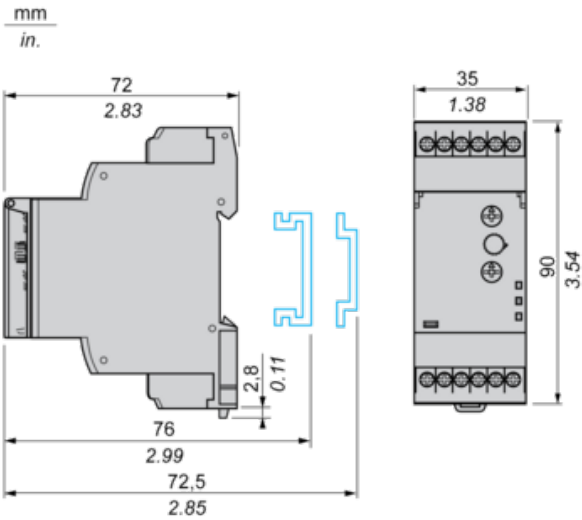
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#"> REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<a href="#"> China RoHS Declaration</a>
RoHS exemption information	<a href="#"> Yes</a>
Environmental Disclosure	<a href="#"> Product Environmental Profile</a>
Circularity Profile	<a href="#"> End Of Life Information</a>
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
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Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

Dimensions and Mounting

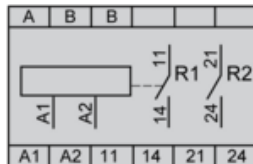


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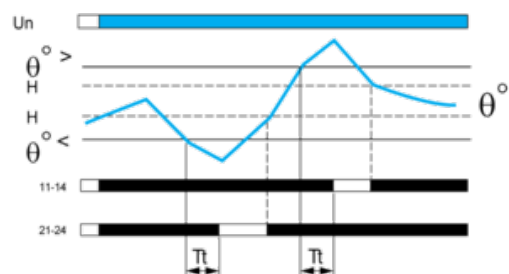
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### Wiring Diagram



## 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

21-22, 21-24 R2 output relay connections

Relay status: black color = energized.