



### 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      | Overtemperature: 34...46°C<br>Undertemperature: -1...11°C   |
| Time delay range                | 0.1...10 s adjustable 0...10 % of the full scale value)   |
| Switching capacity in VA        | 1250 VA   |
| Minimum switching current       | 10 mA 5 V DC  |
| Maximum power consumption in VA | 3.5 VA AC   |
| Utilisation category            | AC-12 IEC 60947-5-1<br>AC-13 IEC 60947-5-1<br>AC-14 IEC 60947-5-1<br>AC-15 IEC 60947-5-1<br>DC-12 IEC 60947-5-1<br>DC-13 IEC 60947-5-1<br>DC-14 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<br>21.6...264 V DC   |
| Maximum power consumption in W | 0.6 W DC   |
| Resistance across terminals    | 1.33 kOhm temperature  |
| Width                          | 1.38 in (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)<br><= 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<br>CE : 73/23/EEC  |
| Overvoltage category           | III IEC 60664-1  |
| Insulation resistance          | > 500 MOhm 500 V DC between supply and relay output IEC 60255-5<br>> 500 MOhm 500 V DC between measurement and relay output IEC 60664-1<br>> 1 MOhm 500 V DC between supply and measurement IEC 60255-5<br>> 500 MOhm 500 V DC between supply and relay output IEC 60664-1<br>> 500 MOhm 500 V DC between measurement and relay output IEC 60255-5<br>> 1 MOhm 500 V DC between supply and measurement IEC 60664-1 |
| [Ui] rated insulation voltage  | 250 V IEC 60664-1  |

|                             |  |
|-----------------------------|--|
| Operating voltage tolerance | - 10 % + 10 % Un DC<br>- 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<br>Screw terminals, 2 x 0.5...2 x 2.5 mm <sup>2</sup> AWG 20...AWG 14) solid without cable end<br>Screw terminals, 1 x 0.2...1 x 2.5 mm <sup>2</sup> AWG 24...AWG 12) flexible with cable end<br>Screw terminals, 2 x 0.2...2 x 1.5 mm <sup>2</sup> AWG 24...AWG 16) flexible with cable end |
| Tightening torque           | 5.31...8.85 lbf.in (0.6...1 N.m) IEC 60947-1   |
| Housing material            | Self-extinguishing plastic   |
| Local signalling            | 1 LED Green power ON<br>1 LED Yellow correct temperature (high R1)<br>1 LED Yellow correct temperature (low R2)  |
| 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 EN/IEC 61000-6-4<br>Emission standard for residential, commercial and light-industrial environments EN/IEC 61000-6-3<br>Immunity for industrial environments NF EN/IEC 61000-6-2 |
| Standards                             | IEC 60255-6<br>NF EN 60255-6   |
| Product Certifications                | GL<br>GOST<br>C-tick<br>CSA<br>UL  |
| Ambient Air Temperature for Storage   | -40...158 °F (-40...70 °C)   |
| Ambient Air Temperature for Operation | -4...122 °F (-20...50 °C)  |
| Vibration resistance                  | 0.35 mm 5...57.6 Hz)IEC 60068-2-6/IEC 60255-21-1<br>1 gn 57.6...150 Hz)IEC 60068-2-6/IEC 60255-21-1  |
| Shock resistance                      | 15 gn 11 ms IEC 60255-21-1   |
| IP degree of protection               | IP20 IEC 60529 terminals)<br>IP30 IEC 60529 casing)  |
| Pollution degree                      | 3 IEC 60664-1  |
| Dielectric test voltage               | 2 kV AC 50 Hz, 1 min   |
| Non-dissipating shock wave            | 4 kV   |

## Ordering and shipping details







|                       |                                      |
|-----------------------|--------------------------------------|
| Category              | 22380-RELAYS-MEASUREMENT (RM17-RM35) |
| Discount Schedule     | CP2                                  |
| GTIN                  | 3389119405171                        |
| Nbr. of units in pkg. | 1                                    |
| Package weight(Lbs)   | 4.62 oz (131.0 g)                    |
| Returnability         | No                                   |
| Country of origin     | ID                                   |

## Packing Units

|                              |                   |
|------------------------------|-------------------|
| Unit Type of Package 1       | PCE               |
| Package 1 Height             | 2.96 in (7.52 cm) |
| Package 1 width              | 1.73 in (4.4 cm)  |
| Package 1 Length             | 3.82 in (9.7 cm)  |
| Unit Type of Package 2       | S03               |
| Number of Units in Package 2 | 48                |

|                  |                         |
|------------------|-------------------------|
| Package 2 Weight | 15.43 lb(US) (7.001 kg) |
| Package 2 Height | 11.81 in (30 cm)        |
| Package 2 width  | 11.81 in (30 cm)        |
| Package 2 Length | 15.75 in (40 cm)        |

### Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           |  <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)  <a href="#">EU RoHS Declaration</a>  |
| Mercury free               | Yes   |
| RoHS exemption information |  <a href="#">Yes</a>   |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</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

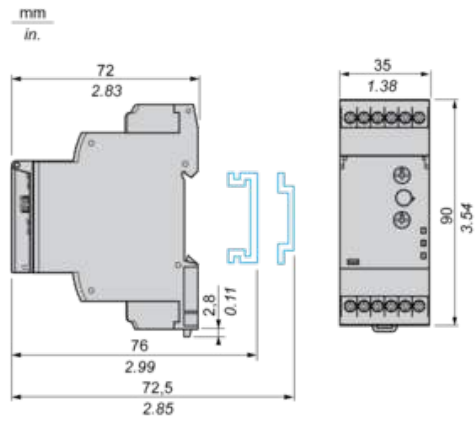
|          |           |
|----------|-----------|
| Warranty | 18 months |
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Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

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Dimensions and Mounting

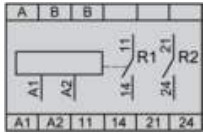


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Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

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Wiring Diagram

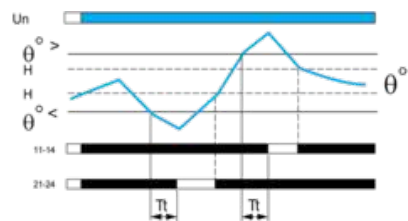


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Function Diagram

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Temperature Control by PT 100 Probe



Legend

$T_t$  Time delay after crossing of the temperature threshold

$U_n$  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.