

Product data sheet

Characteristics

RM35ATW5MW

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



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 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	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 ² (AWG 20...AWG 11) solid without cable end Screw terminals, 2 x 0.5...2 x 2.5 mm ² (AWG 20...AWG 14) solid without cable end Screw terminals, 1 x 0.2...1 x 2.5 mm ² (AWG 24...AWG 12) flexible with cable end Screw terminals, 2 x 0.2...2 x 1.5 mm ² (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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.8 cm
Package 1 Width	4.4 cm
Package 1 Length	9.7 cm
Package 1 Weight	133.0 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	7.097 kg

Offer Sustainability

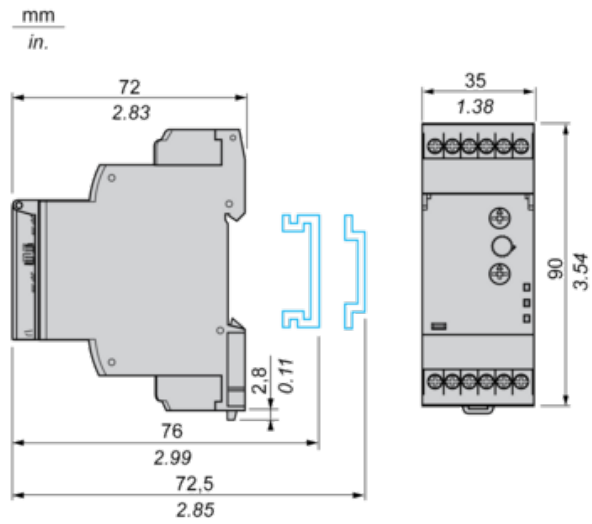
Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	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
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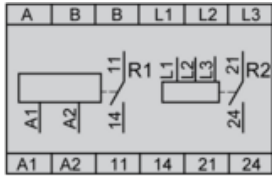
Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

Dimensions and Mounting



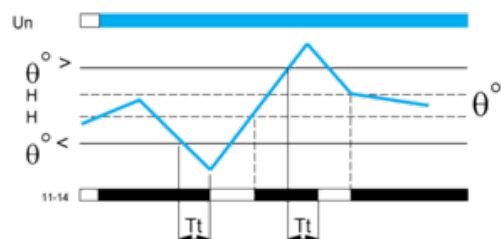
Temperature Control Relays for Elevator Machine Rooms and 3-Phase Supplies

Wiring Diagram



Function Diagram

Temperature Control by PT 100 Probe



Legend

T_t Time delay after crossing of the temperature threshold

U_n Supply voltage

θ° 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.