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TER-3 (E, F)

Thermostats line TER-3

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Characteristics

- single thermostat for temperature monitoring and regulation in range 0 .. 60 °C (32 °F .. 140 °F)
- it can be used for temperature monitoring e.g. in switchboards, heating systems, liquids, radiators, motors, devices, open spaces, etc.
- fixed hysteresis at 1 °C (1.8 °F)
- TER-3E choice of external temperature sensors with double insulation in standard lengths 3, 6 and 12 m (9.8', 19.7' and 39.4')
- TER-3F sensor is a part of device, serves for monitoring temperature in a switchboard
- supply voltage AC/DC 24 240 V
- output contact 1x NO- SPST 16 A / 250 V AC1
- output status is indicated by red LED
- 1-MODULE, DIN rail mounting

Description



- 1. Supply terminals
- 2. Output indication
- 3. Supply indication
- 4. Temperature adjusting
- 5. Sensor
- 6. Output contact 7. External sensor

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18 T1 ¢ °C T1 8

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A2

Connection

Symbol





TER-3F

Example of an order

Please specify a type of thermostat in your order (TER-3E, TER-3F).

Type of load	 cos φ ≥ 0.95 AC1	–(M)– AC2	–(M)– AC3	≠〕‡ AC5a uncompensated	f d⊟ AC5a compensated	AC5b	AC6a	 AC7b	 AC12
Mat. contacts AgSnO ₂ , contact 16A	250V / 16A	250V / 5A	250V / 3A	230V / 3A (690VA)	230V / 3A (690VA) to max. input C=14uF	1000W	х	250V / 3A	х
Type of load	AC13	 AC14	 \$\$\ AC15	- <u></u> _	- <u>M</u> -	- <u>M</u> -			
Mat. contacts AgSnO ₂ , contact 16A	x	250V / 6A	250V / 6A	24V / 10A	24V / 3A	24V / 2A	24V/6A	24V / 2A	x

Technical parameters

	TER-3E	TER-3F			
Function:	single level				
Supply terminals:	A1-	A2			
Voltage range:	AC/DC 24 - 240 V (AC 50 - 60 Hz)				
Power input:	max. 2 VA / 1 W				
Max. dissipated power					
(Un + terminals):	2.5	W			
Supply voltage tolerance:	- 15 %; +10 %				
Measuring circuit					
Measuring terminals:	T1 - T1	х			
Temperature range:	0 60 °C (32	°F 140 °F)			
Hysteresis:	fixed 1 °C (1.8 °F)				
Sensor:	thermistor NTC	in-built			
Sensor fault indication					
(short-circuit / disconnection):	flashing	red LED			
Accuracy					
Setting accuracy (mech.):	5 %				
Switching difference:	0.5 °C ((0.9 °F)			
Temperature dependance:	< 0.1 % / °C (°F)				
Output					
Number of contacts:	1x NO- SPST (AgSnO_)				
Current rating:	16A / AC1, 10 A / 24 V DC				
Breaking capacity:	4000 VA / AC	1, 300 W / DC			
Switching voltage:	250 V AC / 24 V DC				
Output indication:	red LED				
Mechanical life:	3x10 ⁷				
Electrical life (AC1):	0.7x10 ⁵				
Other information					
Operating temperature:	- 20 55 °C (-4 °F 131 °F)				
Storage temperature:	- 30 70 °C (-22 °F 158 °F)				
Electrical strength:	2.5 kV (supply - output)				
Operating position:	any				
Mounting:	DIN rail EN 60715				
Protection degree:	IP40 from front panel / IP10 terminals				
Overvoltage category:	Ш.				
Pollution degree:	2				
Max. cable size (mm ²):	solid wire max. 2x2.5, max. 1x4				
	with sleeve max. 1x2.5, max. 2x1.5 (AWG 12)				
Dimensions:	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)				
Weight:	64 g (2.3 oz.)	60 g (2.1 oz.)			
Standards:	EN 60255-1, EN 60255-26, E	N 60255-27, IEC 60730-2-9			

Function



It is a single thermostat for temperature monitoring with separated sensor (except for TER-3F). Device is located in a switchboard and external sensor senses temperature of required space, object or liquid. Supply is not galvanically separated from sensor but sensor is double insulated. Maximal length of sensor cable is 12 m (39.4'). Temperature sensing is decreased by set hysteresis. When installing it is necessary to keep in mind that hysteresis is increased by temperature gradient between sensor's jacket and thermistor.

Warning

Device is constructed for connection in 1-phase AC 230 V main alternating current voltage and must be installed according to norms valid in the state of application. Connection according to the details in this direction. Installation, connection, setting and servicing should be installed by qualified electrician staff only, who has learnt these instruction and functions of the device. This device contains protection against overvoltage peaks and disturbancies in supply. For correct function of the protection of this device there must be suitable protections of higher degree (A, B, C) installed in front of them. According to standards elimination of disturbancies must be ensured. Before installation the main switch must be in position "OFF" and the device should be de-energized. Don't install the device to sources of excessive electro-magnetic interference. By correct installation ensure ideal air circulation so in case of permanent operation and higher ambient temperature the maximal operating temperature of the device is not exceeded. For installation and setting use screw-driver cca 2 mm. The device is fully-electronic - installation should be carried out according to this fact. Non-problematic function depends also on the way of transportation, storing and handling. In case of any signs of destruction, deformation, non-function or missing part, don't install and claim at your seller.