

## Thermal management for electrical enclosures



### TMX

FAN ASSISTED PTC HEATERS  
User's manual

[www.alfaelectric.com](http://www.alfaelectric.com)

## WARNING

- Safety of TMX is warranted only by proper use of these instruction which must be kept.
- Installation must be done by qualified personnel only after power supply disconnecting
- Before any operation, switch off the power supply.
- Install the TMX only inside an electrical enclosure, in the bottom part of cabinet.
- Upstream of the electrical connection, an efficient disconnection system must be provided
- Protection against access to live parts must be warranty by installer.
- Don't install TMX in ambient with excessive moisture and dirt
- Installation position of TMX must be selected to ensure good ventilation. Take care that any internal components of enclosure don't obstruct air passage.
- Do not mount TMX under easily inflammable materials
- Follow all technical data shown in this manual.

This manual contains the information necessary for the product to be installed correctly and also instructions for its maintenance and use; we therefore recommend that the utmost attention is paid to the following instructions.

Though this manual has been issued with the greatest care, ALFA ELECTRIC will not take any responsibility deriving from its use. The same applies to each person or Company involved in the issuing of this manual.

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ALFA ELECTRIC reserves the right to make any formal or functional changes at any moment and without any notice.

## 1 - DESCRIPTION

### GENERAL DESCRIPTION

Super compact and light weight fan assisted PTC heaters with spring terminal, optimized to avoid condensation or grant a minimum temperature in closed cabinets.

Tab. 1

Model	Heating Capacity* [W]	Power supply [V/Hz]	Delayed fuse (advised) [A]
TMX150.0x	150	230/50-60	6.3
TMX150.1x	150	115/50-60	10
TMX250.0x	250	230/50-60	6.3
TMX250.1x	250	115/50-60	10
TMX300.0x	300	230/50-60	6.3
TMX300.1x	300	115/50-60	10
TMX400.0x	400	230/50-60	6.3
TMX400.1x	400	115/50-60	10

X at the end of code can be 0 or 1 according to TMX version (see 4-ELECTRICAL CONNECTION)

## 2 - INSTALLATION

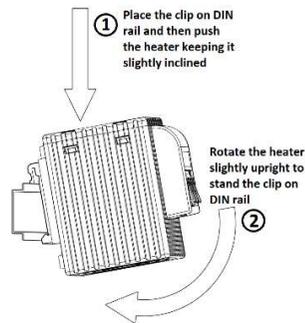
### 2.1 GENERAL DESCRIPTION

TMX is fitted by clip for DIN rail 35mm mounting.

### 2.2 INSTALLATION

#### WARNING

- Keep a thermal safety clearance of 300 mm from the air outlet and 100mm from air inlet, 20mm of clearance from sides
- Install vertically (cables below heater) in the bottom part of cabinet.
- Do not mount heaters under easily inflammable materials
- Do not operate in corrosive ambient air.
- Install TMX only in an electrical enclosure



## 3 - REMOVAL

- Before any operation, switch off the power supply

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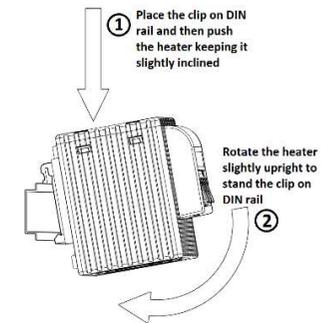
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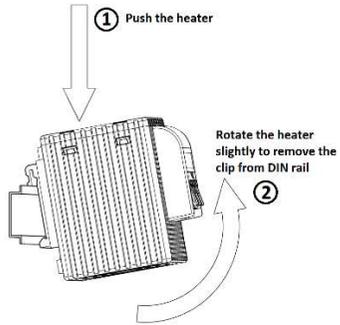
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## 3 - REMOVAL

- Before any operation, switch off the power supply

**WARNING: top grill surface is very hot for 15-20 minutes after electrical disconnection.**



#### 4 – ELECTRICAL CONNECTION

##### 4.1 GENERAL DESCRIPTION

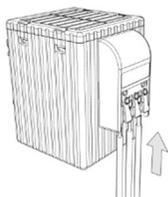
TMX must be powered at voltage rating shown on label pasted above the terminal.

##### 4.2 ELECTRICAL CONNECTION

TMX connection must be done by trained electricians according national electrical safety codes.

- Before any operation, disconnect cabinet
- Connect TMX according to wiring diagram
- Connect the TMX to the power supply by adequate section cable according to dimension allowed by terminal.
- Connect the TMX according to version type .00/.01 or .01/.11

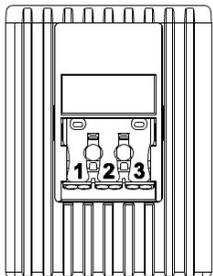
**TMX terminals are suitable to connect rigid or stranded wires according following range:**



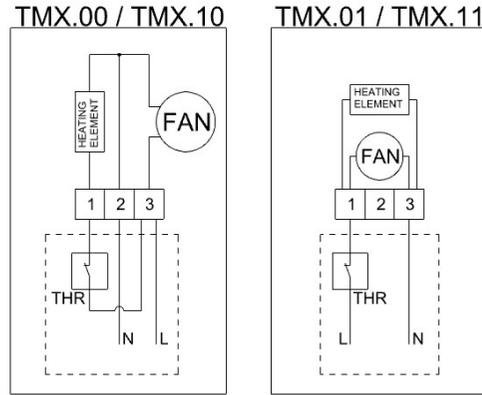
0.5 - 2.5 mm<sup>2</sup> solid,  
0.75 - 2.5 mm<sup>2</sup> stranded,  
0.5 - 1.5 mm<sup>2</sup> fine stranded wire  
with ferrule

**TMX is fitted with push-in terminal: to connect the wire push slightly it inside of terminal.**

- Use a thermostat ALFAELECTRIC THR series to pilot heating functions according to enclosure temperature.
- Connect the cabinet



**Connect the TMX according to version type .00/.01 or .01/.11**



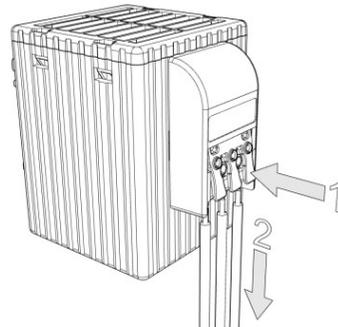
**Inrush current could be 6 times higher than rated current, a delayed fuse is suggested to prevent fuse break during TMX starting (see tab.1 for references).**

##### 4.3 ELECTRICAL DISCONNECTION

###### WARNING

- **Disconnection must be done by qualified personnel only after power supply disconnecting**
- **Before any operation, switch off the power supply.**

To disconnect the wire, push the button and pull out the wire from terminal



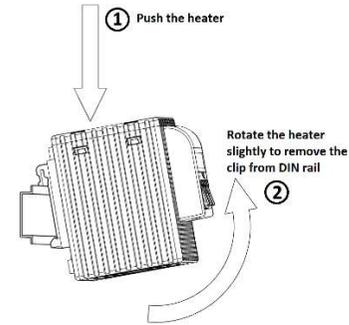
#### 5 – CLEANING, MAINTENANCE AND DISPOSAL

Cleaning and maintenance must be done only by specialized people after switching off power supply.

For cleaning use only a wiper and compressed air.

TMX must be disposed of separately from ordinary household wastes

**WARNING: top grill surface is very hot for 15-20 minutes after electrical disconnection.**



#### 4 – ELECTRICAL CONNECTION

##### 4.1 GENERAL DESCRIPTION

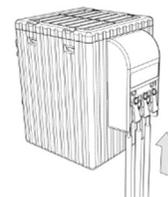
TMX must be powered at voltage rating shown on label pasted above the terminal.

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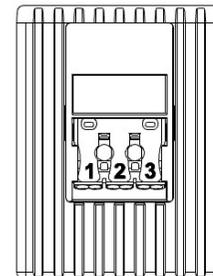
**TMX terminals are suitable to connect rigid or stranded wires according following range:**



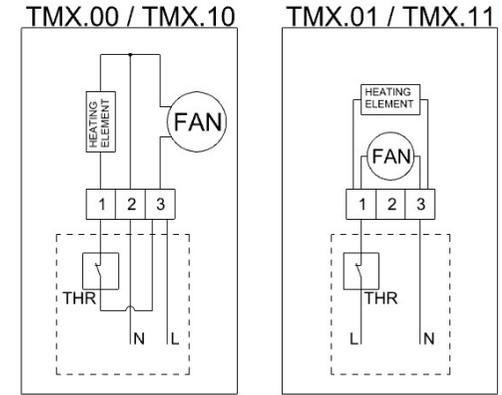
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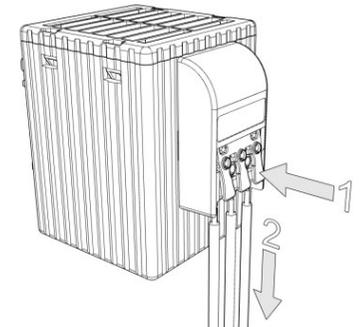
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