Advanced Thermostatic Heating Mantle

LB-67HMT

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1. Safety Measures

- Read the instructions carefully before operating the instrument.
- Use an electrical outlet with a fuse or circuit breaker and a ground faultinterrupts the circuit.
- Disconnect the mantle from the power supply before maintenance andservicing to avoid personal injury.
- Do not use flammable or combustible material near the instrument forsafety measures.
- Flasks and vessels should be handled with care and appropriate safety clothing, glasses, gloves, and coats should be worn when operating all mantles.
- The heating mantle can reach 400°C without directly touching the heated surface. Keep the unit away from the explosive vapors and clear of papers, drapery, and other flammable materials.
- Keep the power cord away from the heating mantle.
- Do not operate the unit at high temperatures without a vessel/sample in theheating mantle.
- Turn the heating power button OFF first and then the stirring power buttonwhen the heating mantle is cooled down.
- Smoke and a pungent smell will occur when using it for the first time.
- It is normal to change the brown or yellow color of the inner sleeve of the heating mantle when the heating mantle temperature exceeds 100 degrees, and the color can be returned when it works over 200 degrees.

2. Introduction

Advanced thermostatic heating mantle LB-67HMT is a tabletop heating mantle with a capacity of 5 L. It features a PID temperature controller and has an optimum temperature of 380 °C with maximum temperature resistance up to 450 °C. It consists of an outer thermocouple that measures and controls the liquid temperature value together with the front panel and an inner thermocouple that controls and measures the heating mantle temperature.

3. Features

1. Capacity of 5 L
2. Continuous working time
3. Alkali-free glass fiber
4. PID temperature control
5. Customized mantle available
6. Insulating course material of alumina silicate fiber
7. It has a self-tuning mechanism by which it checks the temperature value reaches the set temperature value

4. Specifications

Model No.	LB-67HMT
Capacity	5 L
Power	1100 W
Temperature	380 °C
Temperature accuracy	±1 °C
Voltage	160V- 240 V, 110V- 120V

5. Applications

Used in laboratories to apply heat to containers and samples, for distillations thatrequire high temperatures, health care and other fields.

6. Instrument Introduction

Figure.1

7. Installation

- Upon receiving the heating mantle ensure that no damage has occurred to the shipment if you find any such damage the carrier must be notified.
- After unpacking place, the heating mantle on a level bench or table away from explosive vapors.
- Make sure that the surface on which the unit is placed will withstand typical heat produced by the unit and place the unit at a minimum of 30 cm from a vertical surface.
- The instrument should be plugged into a properly grounded outlet.
- The 110V unit plugs into a 110-volt, 50/60 Hz source and 220V unit plugs into 220volt, 50/60Hz source.

8. Operations

8.1 Getting Ready

1) Place a vessel with a solution and the appropriate accessories in the center of the heating mantle.
2) Plug the power cord into a properly grounded outlet.
3) Put the inner thermocouple on the heating mantles, it's not on it.

8.2 Operation Instruction

1) **Set temperature adjustment**
   - Turn ON the power button for heating in the lateral.

Figure.2

- PV windows display the ambient temperature, and SV displays the set temperature last time.
- Press or button for 3 seconds to quickly set the temperature users require, and the SV window displays the set temperature, and the PV displays theinner heating mantle temperature LED display.
- LED **OFF** when the inner heating mantle temperature reaches the set temperature.
- The heating mantle stops working when the liquid temperature reaches the set and one can work again when the liquid temperature is below the set one.
- Pull out the inner thermocouple at the back of the heating mantle and the heating mantle stops working the SV displays the last time set temperature and the PV displays “**HHH**”.

2) **<u>Measured the liquid temperature adjustment</u>**
- Pull the inner thermocouple by hand, the PV window displays HHH, and the SV window shows the last set temperature.

Figure.3

- Connect the outlet thermocouple 4 holes with the heating mantle 4 spins.
- Put another stainless-steel part of the outer thermocouple into the liquid users measured.
- The PV window displays the measured temperature.

9. Accessories

Standard Accessories

Figure	item	Quantity
	Inner thermocouple 4- spin	1pc
	Outer K type Thermocouple 4-spins Stainless steel length: 235 mm Wire length: 1000nm	1pc
	Can remove holder Length 280mm Diameter 10m Material: Stainless steel	1pc
	Clamp with screw	1pc

Accessory	Quantity
Magnetic bead	1 pc
Designed specifically for round bottom flasks	
PTFE–coated	
Length: 20 mm	
Diameter: 10 mm	