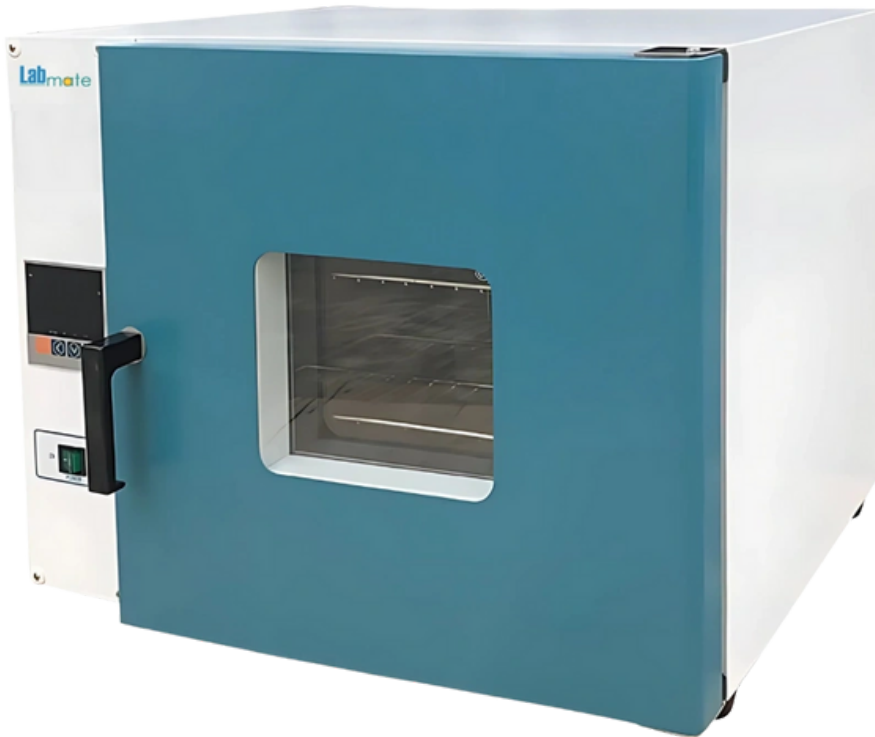




Drying Oven LM0D-A109

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1. Safety Measures

- To avoid electrical dangers, ensure the drying oven's outside shell is correctly grounded.
- If the device will not be used for a long time, unplug it and turn off the power supply after use.
- Do not put anything flammable, volatile, or explosive within the drying oven chamber because it is not explosion-proof.
- Any combustible or explosive products should not be kept on or close to the oven.
- The drying oven should be placed away from heat sources and direct sunshine in a well-ventilated location.
- To ensure optimum ventilation and avoid overheating, keep enough space around the oven.
- To maintain a consistent temperature and stop heat loss, make sure the oven door is completely closed while it is operating.
- To ensure uniform airflow and effective hot air circulation, leave enough space between samples and avoid blocking the chamber's air vents.
- To avoid burns, wear gloves that can withstand heat when handling things inside the heated chamber.
- Avoid opening the door too often while the machine is operating, as this could lead to temperature changes and impair drying efficiency.
- Clean the internal chamber on a regular basis to avoid debris accumulation that could obstruct heat transfer.
- Only trained professionals should do repairs or servicing on the oven; do not alter or tamper with its parts.
- The oven may sustain internal component damage if it is used in corrosive or humid conditions.

2. Introduction

Drying Oven LMOD-A109 features 70 L capacity, 50 to 300°C temperature range, and $\pm 1^\circ\text{C}$ temperature fluctuation. Equipped with an LCD display, PID temperature controller, and corrosion-resistant powder-coated steel housing. Incorporated with double-layer tempered glass window and high-quality silicone door seal for optimal insulation. It is equipped with stainless steel inner chamber, adjustable shelves, and uniform hot air circulation for consistent performance. Our Oven is suitable for drying, sterilization, and thermal processing in laboratories and industrial setups.

3. Features

- Digital Timer Display
- Semicircle Chamber Corners
- Over Temperature Alarm
- Automatic Operation Alarm

4. Specifications

Model No.	LMOD-A109
Capacity	70 L
Temperature Range	50 to 300°C
Temperature Resolution	0.1°C
Temperature Fluctuation	$\pm 1^\circ\text{C}$
Timer	0 to 9999min
Power Consumption	1000 W
Power Supply	110V 60Hz / 220V 50Hz
Working Dimensions	450 × 350 × 450 mm
Dimensions	620 × 710 × 620 mm
Packaging Dimensions	720 × 750 × 740 mm
Net Weight	48 Kg
Gross Weight	62 Kg

5. Applications

Drying Oven LMOD-A109 is employed for drying, heating, and sterilizing samples in labs and industrial setups. It is ideal for moisture removal, thermal processing, and material testing in pharmaceutical and electronic industries.

6. Structure Introduction

The instrument boasts a durable exterior shell made from fine steel plate, while the interior working chamber is constructed of stainless steel or coated with high-temperature resistant silver lacquer for optimal thermal performance. Each chamber contains two to four adjustable shelves for versatility.

For insulation, ultrafine glass wool is utilized, ensuring energy efficiency, while a double-layer glass observation box provides visibility without significant heat loss. A high-temperature resistant silicone rubber gasket or asbestos cord secures the seal between the working chamber and the observation box door.

Control functions are conveniently located at the front, including a power switch and an intuitive temperature controller. The heating system features a fan, an electric heater, and a duct system designed for even heat distribution. Upon activation, the fan circulates heated air throughout the chamber, ensuring a consistent temperature.

The microcomputer-controlled temperature system offers precise regulation with progressive heating to prevent overshoot. It includes self-regulation, accuracy in temperature settings, and a protection device with an alert function for optimal operation.

7. Operations

- 1) After moving the drying materials into the working chamber and shutting the box door, plug in the power source.
- 2) After setting the temperature and adjusting the temperature controller, the heat indicator illuminates, indicating that the instrument has begun to heat up. The specific procedure is as follows:

After setting the power switch to **"ON"** for around 7 seconds, the temperature controller's upper section shows the box's actual temperature, while the lower section is used to set the temperature. Press ▲, the first line displays **SP**. press▲ or ▼, which can make the second line displays your required temperature; press again, the first line displays **ST** (press ▲ or ▼, which make the second line displays your required time. when ST is 0, the instrument cancels timing function; when ST is not 0, the instrument has timing function). Press ▲ once again, return to the standard model, and then the temperature controller finishes setting, the instrument can work. Typically, the temperature controller will reach a constant temperature after 90 minutes of heating the instrument.
- 3) The working chamber can quickly reach a stable temperature state by setting it a second time when your desired working temperature is lower. This will lessen or even eliminate the occurrence of temperature overshoot.
- 4) Depending on the needs of the various objects, select a different drying time.
- 5) Select **"OFF"** on the power switch once the drying process is complete, but do not open the door to take anything out right away. To avoid getting burned, you can open the box's door to reduce the temperature.

8. Troubleshooting

Phenomena	Reason	Treatment
No electricity	Not connecting the power supply well or wire breaks	Check and reconnect the power supply wire.
	The fuse is broken	Replace the fuse.
No warming up in the box	The set temperature is too low	Adjust the set temperature
	The heater is not functioning correctly	Replace the heater
	The temperature controller is abnormal	Replace the temperature controller
	The fan is not working	Replace the fan
There is a magnitude error between the setting temperature and the actual temperature in the box	The temperature sensor is abnormal	Replace the temperature sensor
	The temperature controller is not properly adjusted	Adjust the temperature controller
Over-temperature Alarm abnormal	The set temperature is low	Adjust the set temperature
	The temperature controller is abnormal	Replace the temperature controller

9. Circuit Diagram

