

## VTSYIQI MS300

# VTSYIQI Thermostatic Hot Plate Magnetic Stirrer MS300 User Manual

Model: MS300

## 1. INTRODUCTION

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This manual provides essential information for the safe and effective operation of your VTSYIQI Thermostatic Hot Plate Magnetic Stirrer MS300. This laboratory instrument is designed for heating and stirring liquids, offering precise temperature control and adjustable stirring speeds. Please read this manual thoroughly before use and retain it for future reference.

## 2. SAFETY INFORMATION

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- Always operate the unit on a stable, level, and heat-resistant surface.
- Ensure the power supply matches the specifications of the unit (AC 220V/50Hz).
- Do not immerse the unit in water or other liquids.
- Avoid touching the hot plate surface during and immediately after operation, as it can reach temperatures up to 300°C. Use appropriate personal protective equipment (PPE).
- Always use appropriate glassware and containers that can withstand the operating temperatures.
- Do not operate the unit in explosive atmospheres or near flammable materials.
- Disconnect the power cord before cleaning or maintenance.
- Keep children and unauthorized personnel away from the operating unit.
- If the unit shows signs of damage or malfunction, discontinue use immediately and contact customer support.

## 3. PACKAGE CONTENTS

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Carefully unpack the unit and check for any damage. Ensure all items listed below are present:

- VTSYIQI Hot Plate Magnetic Stirrer (Main Host)
- Temperature Probe (TP-100P)
- Stir Bar(s)
- Power Cord



Image: Complete package contents, including the magnetic stirrer unit, instruction manual, temperature probe, stir bars, and product packaging.

Your browser does not support the video tag.

Video: An overview of the Digital Thermostatic Magnetic Stirrer, demonstrating its components and basic appearance.

## 4. PRODUCT OVERVIEW

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The VTSYIQI MS300 features a robust design with a stainless steel top plate and an intuitive control panel for precise operation.



Image: Side view of the VTSYIQI Hot Plate Magnetic Stirrer MS300, showing the main unit and control panel.

#### 4.1 Control Panel

The control panel features a large LCD display and push-buttons for setting parameters.



Image: Close-up of the control panel, displaying the LCD screen for timer and temperature, along with 'TIME', '°C', 'EXIT', and 'ENTER' buttons.

## 4.2 Heating and Stirring Plate

The unit is equipped with a durable stainless steel top plate for efficient heating and stirring.



Image: Detail of the stainless steel heating and stirring plate, showing its robust construction.

### 4.3 Rear Panel

The rear panel includes the power input, main power switch, and a fuse holder for safety.



Image: Rear panel detail, showing the power cord connection, fuse holder, and main power switch.

## 5. SETUP

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1. **Placement:** Place the magnetic stirrer on a stable, level, and heat-resistant workbench, ensuring adequate ventilation around the unit.
2. **Power Connection:** Connect the power cord to the power input on the rear panel of the unit, then plug it into a grounded electrical outlet (AC 220V/50Hz).
3. **Temperature Probe:** If external temperature control is desired, connect the TP-100P temperature probe to the designated port on the unit. Place the probe into the liquid to be heated/stirred.
4. **Stir Bar Placement:** Place the stir bar into the center of the vessel containing the liquid to be stirred. Ensure the vessel is placed centrally on the hot plate.

## 6. OPERATION

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The MS300 offers independent control for heating and stirring functions, along with a timing feature.

### 6.1 Power On/Off

- Flip the main power switch on the rear panel to the 'ON' position. The LCD display will illuminate.
- To power off, flip the switch to the 'OFF' position.

### 6.2 Setting Stirring Speed

1. Press the 'ENTER' button to enter the setting mode.
2. Use the 'UP' or 'DOWN' arrow buttons to adjust the desired stirring speed (0-1250 rpm).
3. Press 'ENTER' again to confirm the speed setting. The stirring will begin.
4. To stop stirring, reduce the speed to 0 rpm or press 'EXIT'.

### 6.3 Setting Heating Temperature

1. Press the '°C' button to enter temperature setting mode.
2. Use the 'UP' or 'DOWN' arrow buttons to adjust the desired heating temperature (0-300°C).
3. Press 'ENTER' to confirm the temperature setting. The heating function will activate.
4. The unit will automatically maintain the set temperature using the external temperature probe (if connected).
5. To stop heating, reduce the temperature to 0°C or press 'EXIT'.

### 6.4 Setting Timer

1. Press the 'TIME' button to enter timer setting mode.
2. Use the 'UP' or 'DOWN' arrow buttons to set the desired operation time (up to 999 minutes).
3. Press 'ENTER' to confirm. The timer will start counting down once stirring or heating begins.
4. Upon completion of the set time, the stirring and heating functions will automatically stop.

### 6.5 Temperature Calibration

The unit supports 1-point temperature calibration for improved accuracy.

1. While the unit is powered on, press and hold the 'UP' and 'DOWN' arrow buttons simultaneously for 3 seconds to enter calibration mode.
2. The display will show the current temperature value.
3. Use the 'UP' or 'DOWN' arrow buttons to adjust the displayed temperature to match a known reference temperature.
4. Press 'ENTER' to save the calibration value and exit.

## 7. MAINTENANCE

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- **Cleaning:** Disconnect the unit from power before cleaning. Wipe the exterior surfaces and the hot plate with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the unit in a dry, clean environment away from direct sunlight and extreme temperatures when not in use.
- **Fuse Replacement:** If the unit does not power on, check the fuse located on the rear panel. Disconnect power, unscrew the fuse holder, and replace with a fuse of the same rating (refer to specifications).

- **Stir Bar Care:** Clean stir bars after each use. Replace damaged or worn stir bars to ensure efficient stirring.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Unit does not power on.	No power supply; Blown fuse; Power switch off.	Check power cord connection; Replace fuse; Ensure power switch is ON.
Stirring function not working.	Stir bar not present or stuck; Speed set to 0; Motor malfunction.	Ensure stir bar is in vessel and free; Increase speed setting; Contact support if motor issue.
Heating function not working.	Temperature set to 0; Heating element malfunction.	Increase temperature setting; Contact support if heating element issue.
Inaccurate temperature reading.	Temperature probe not properly inserted; Calibration needed.	Ensure probe is fully immersed; Perform 1-point temperature calibration.

## 9. SPECIFICATIONS

Parameter	Value
Stirring Volume	0~2000mL
Stirring Speed	0~1250rpm
Temperature Range	0~300°C
Top Plate Size	135(L)×135(W)mm, Stainless Steel
Timer Range	Up to 999 minutes
Power Requirements	AC 220V/50Hz
Dimensions	230(L)×180(W)×120(H)mm
Weight	2.2kg
Item Model Number	MS300 (VTSYIQI202503170840456453453VTSYIQI)

## 10. WARRANTY AND SUPPORT

For warranty information or technical support, please contact your supplier or the manufacturer directly. Keep your purchase receipt and product model number (MS300) available when seeking assistance.