TECHNICAL DATA SHEET

ALab™ MS-H220-V3 / MS-H220-V5 LCD Digital Heating Magnetic Stirring Bath

LCD digital heating magnetic stirring bath · water or oil · RT to 220℃ · 100 to 1500 rpm · 3 L or 5 L



ALab™ MS-H220-V3 / MS-H220-V5 LCD Digital Heating Magnetic Stirring Bath

The ALab™ MS-H220-V3 / MS-H220-V5 LCD Digital Heating Magnetic Stirring Bath, shown as two units; image shown for reference.

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SECTION I

Product Overview

The ALab™ MS-H220-V3 / MS-H220-V5 are LCD digital heating magnetic stirring baths for water or oil, with a high borosilicate glass liner on a stainless steel base. They heat the bath from RT to 220°C and stir at 100 to 1500 rpm, for 3 L (V3) or 5 L (V5) flasks.

Stirring the bath liquid also stirs the sample in the flask. A timer from 1 min to 99 h 59 min stops heating but keeps stirring; dry-burn, overcurrent, ground-fault and over-temperature protection, a "HOT" warning and two independent safety circuits protect the operator.

SECTION II

Core Advantages

- **Bath** — water or oil, glass liner
- **Speed** — 100 to 1500 rpm
- **Timer** — 1 min to 99 h 59 min
- **Heating** — RT to 220°C, ±1°C
- **Flask** — 3 L or 5 L
- **Safety** — HOT warning, 2 circuits

SECTION III

Specifications

Technical data — MS-H220-V3 · MS-H220-V5

Specifications	
Brand	ALab™ by ACS Material
Models	MS-H220-V3, MS-H220-V5
ACS Cat. No.	Parent ALMSH35G; ALMSH300, ALMSH500
Product type	LCD digital heating magnetic stirring bath
Heating pan material	High borosilicate glass + stainless steel base
Motor type	Brushless DC motor
Stirring positions	1
Maximum stirrer bar length	40 mm
Speed range	100 to 1500 rpm
Speed control accuracy	±10 rpm
Speed display	LCD
Temperature display	LCD
Heating temperature range	RT to 220°C
Heating liquid temperature control accuracy	±1°C
Overheating temperature protection	350°C
Temperature display resolution	0.1°C
External temperature sensor	PT1000
"HOT" warning	50°C
Buzzer	Yes
Forward and reverse rotation	Yes
Timer	1 min to 99 h 59 min
Protection class	IP21
Voltage, frequency	100 to 120 V / 200 to 240 V, 50/60 Hz
Permissible ambient temperature and humidity	5 to 40°C, 80% RH

Model comparison

Parameter	MS-H220-V3	MS-H220-V5
Max. stirring quantity [H_2O]	3 L	5 L
Bath size	Ø220 × 105 mm	Ø240 × 135 mm
Maximum flask volume	3 L	5 L
Dimensions [W × D × H]	283 × 343 × 215 mm	283 × 343 × 228 mm
Weight	6.0 kg	6.7 kg
ACS Cat. No.	ALMSH300	ALMSH500

Control and design

Function	Detail
Controls	Touch buttons with audible prompts; safety lock prevents accidental changes to the operating status
Display	LCD shows speed, time and temperature
Status light	Green during operation, flashing green before the set temperature is reached, red for an alarm
Timer	1 min to 99 h 59 min; at the end of the countdown heating stops, stirring continues and the buzzer sounds
Stirring	Brushless DC motor (spark-free, low noise, maintenance-free); forward and reverse rotation; secondary stirring of the sample in the flask
Safety	Dry-burn, overcurrent, ground-fault and over-temperature protection; when the plate temperature is above 50°C, the screen flashes "HOT" as a residual-heat warning, even after the power is turned off; two independent safety circuits stop heating with an error or cut the power on overheating, sensor failure or a short circuit
Protection class	IP21

SECTION IV

Applications

Heating and stirring of a flask in a water or oil bath with uniform heating of the bath liquid and the sample, with a glass window to observe the reaction.

Specifications are per the tables above.

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