

TECHNICAL DATA SHEET

ALab™ DMS7-550M 7-Inch Digital Hotplate Magnetic Stirrer

184 × 184 mm glass-ceramic plate · room temp – 550 °C · 20 L [H₂O] · 50–1500 rpm · PT1000



ACS Material ALab™ DMS7-550M 7-Inch Digital Hotplate Magnetic Stirrer

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Revision Date **09/04/2026**

SECTION I

Product Overview

The ALab™ DMS7-550M 7-Inch Digital Hotplate Magnetic Stirrer heats and stirs on one 184 × 184 mm glass-ceramic plate. It heats from room temperature to 550 °C in 1 °C increments, and its brushless DC drive delivers 50 W, stirring up to 20 L of water with a stirrer bar up to 80 mm long across 50 to 1500 rpm in 1 rpm increments. An external PT1000 sensor, accurate to ±0.2 °C, lets the controller work from the liquid temperature rather than the plate; control accuracy in heating liquid is ±1 °C below 100 °C and ±1% above 100 °C. The listed maxima are individual ratings, not a validated simultaneous operating condition. The DMS7-550M is the strong-magnetic version of our 7-inch range.

SECTION II

Core Advantages

- **550 °C on a 7-inch plate** — in 1 °C steps, overheating protection at 580 °C
- **20 L stirring capacity** — up to 20 L of water, stirrer bar up to 80 mm
- **Control on the liquid** — PT1000 at ±0.2 °C; in liquid ±1 °C / ±1%
- **1 rpm and 1 °C resolution** — temperature display accuracy 0.1 °C

SECTION III

Specifications

Technical data

Specifications	
Working Plate	184 × 184 mm (7 inch) · Glass Ceramic
Stirring	Brushless DC motor, 50 W · 1 position · 20 L [H ₂ O] · bar up to 80 mm
Speed Range	50–1500 rpm, increment 1 rpm
Heating Temperature Range	Room temp – 550 °C, increment 1 °C
Temperature Control Accuracy of Heating Liquid	±1 °C (<100 °C) · ±1% (>100 °C)
Temperature Display Accuracy	0.1 °C
External Temperature Sensor	PT1000, accuracy ±0.2 °C
Thermal Protection	Overheating protection 580 °C · waste-heat warning 50 °C
Display / Timer	Speed display LCD · temperature display LCD · timer 1 min – 99 h 59 min
Input / Connection / Protection	100–120 / 200–240 V, 50/60 Hz · 1200 W total, 1150 W heating · RS232 · IP21
Dimensions [L × W × H] / Weight	360 × 230 × 110 mm · 4.3 kg
Permissible Ambient Conditions	5–40 °C, 80% RH

Configuration to confirm

Instrument	DMS7-550M — 7-inch digital hotplate magnetic stirrer
Temperature Sensor	External PT1000, accuracy ± 0.2 °C — part no. and inclusion confirmed on your quotation
Scope of Supply	Confirmed on your quotation

We confirm the scope of supply on your quotation rather than list contents we have not confirmed for your order; items shown alongside the instrument appear for context. For control detail — heating modes, safety-temperature setting, keypad lock and alarm behaviour — contact ACS and we will confirm in writing what your unit does.

Configuration to confirm

- **Instrument:** DMS7-550M
- **Probe part number:** confirmed on your quotation
- **Connection:** RS232 · external sensor input
- **Temperature sensor:** external PT1000, ± 0.2 °C
- **Input:** 100–120 / 200–240 V, 50/60 Hz, 1200 W
- **Stirrer bars and support hardware:** confirmed on your quotation

SECTION IV**Applications and Considerations**

Typical applications for the ALab™ DMS7-550M, each subject to the noted considerations:

- **Heated stirring to 550 °C** — the full plate setting range, in 1 °C steps
- **Batch volumes up to 20 L of water** — with a stirrer bar up to 80 mm
- **Viscous media** — the strong-magnetic version of our 7-inch range; contact us about your medium
- **Temperature-controlled work** — PT1000 probe input, a 1 min–99 h 59 min timer and RS232

Suitability depends on chemical compatibility, the configuration supplied and your laboratory's own safety assessment. We do not publish a chemical-compatibility table, plate-temperature uniformity data or a maximum-viscosity rating — tell us your application and we will advise.

Revision Date: 09/04/2026

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