TECHNICAL DATA SHEET

# ALab™ DMS5-340 LCD Digital 5-Inch Timed Heating Magnetic Stirrer

*LCD digital heating magnetic stirrer · Ø135 mm plate · RT to 340℃ · 50 to 1500 rpm · 20 L · timer · RS232*



**ALab™ DMS5-340 LCD Digital 5-Inch Timed Heating Magnetic Stirrer**

The ALab™ DMS5-340 LCD Digital 5-Inch Timed Heating Magnetic Stirrer; image shown for reference.

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SECTION I

## Product Overview

The ALab™ DMS5-340 is an LCD digital heating magnetic stirrer with a 5-inch (Ø135 mm) aluminum plate with a ceramic coating. It heats from RT to 340°C in 1°C increments (heating output 600 W) and stirs up to 20 L of water at 50 to 1500 rpm. Its parallel magnetic field is uniform at any position on the plate, which suits parallel reactions.

Three heating modes (A rapid, B standard, C stable), a timer from 1 min to 99 h 59 min that stops heating while stirring continues, external PT1000 control (±0.2°C), 420°C overheating protection, two independent safety circuits, a settable safety temperature, a "HOT" warning above 50°C, a safety lock and an RS232 connector for remote PC control are built in.

SECTION II

## Core Advantages

- **Field** — uniform, for parallel reactions
- **Speed** — 50 to 1500 rpm, 20 L
- **Timer** — heating stops, stirring continues
- **Heating** — RT to 340°C, 1°C steps
- **Modes** — A rapid, B standard, C stable
- **Safety** — 420°C protection, HOT warning

SECTION III

## Specifications

**Technical data — DMS5-340**

| Specifications | |
|---|---|
| **Brand** | ALab™ by ACS Material |
| **Model** | DMS5-340 |
| **ACS Cat. No.** | Parent ALDMS00F; ALDMS000 |
| **Product type** | LCD digital heating magnetic stirrer with 5-inch ceramic-coated plate and uniform magnetic field |
| **Work plate dimension** | Ø135 mm (5 inch) |
| **Work plate material** | Aluminum with ceramic coating |
| **Motor type** | Brushless DC motor |
| **Stirring positions** | 1 |
| **Maximum stirring volume [$H_2O$]** | 20 L |
| **Maximum stirrer bar length** | 80 mm |
| **Speed range** | 50 to 1500 rpm, increment 1 rpm |
| **Speed display** | LCD |
| **Temperature display** | LCD |
| **Heating temperature range** | RT to 340°C, increment 1°C |
| **Temperature control accuracy (liquid)** | ±1°C (<100°C), ±1% (>100°C) |
| **Overheating protection** | 420°C |
| **Temperature display accuracy** | ±0.1°C |
| **External temperature sensor** | PT1000 (accuracy ±0.2°C) |
| **"HOT" warning** | 50°C |
| **Data connector** | RS232 |
| **Timer function** | 1 min to 99 h 59 min |
| **Motor output power** | 10 W |
| **Power** | 650 W |
| **Heating output** | 600 W |
| **Voltage, frequency** | 100 to 120 V / 200 to 240 V, 50/60 Hz |
| **Dimensions [L × W × H]** | 270 × 175 × 98 mm |

| Specifications | |
|---|---|
| **Weight** | 2.2 kg |
| **Permissible ambient temperature and humidity** | 5 to 40°C, 80% RH |

### Control and safety

| Function | Detail |
|---|---|
| **Heating modes** | A: rapid heating, B: standard heating, C: stable heating |
| **Timer** | 1 min to 99 h 59 min; at the end of the countdown heating stops while stirring continues, so the sample is not overheated |
| **Overheating protection** | Overheating protection at 420°C |
| **Two independent safety circuits** | Continuous monitoring: on overheating or sensor failure the unit reports an error and stops heating; on a short circuit it cuts the power supply |
| **"HOT" warning** | When the plate is above 50°C and heating is off, "HOT" flashes on the display, even after the power is switched off |
| **Safety temperature** | Settable safety temperature limit |
| **External temperature control** | PT1000 temperature sensor, accuracy ±0.2°C, for control of the liquid temperature |
| **Safety lock** | Locks the settings against accidental changes during operation |
| **Buzzer** | Sounds when the unit detects a fault and when the timer countdown ends |
| **RS232 data connector** | Remote control from a PC |

SECTION IV

## Applications

Heating from RT to 340°C and magnetic stirring of up to 20 L of water on a 5-inch plate in the laboratory, including parallel reactions.

Specifications are per the tables above.

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