

TECHNICAL DATA SHEET

ALab™ CCP5-Mini Mini Low-Temperature Circulator

Mini low-temperature circulator · -20 °C to room temperature · 700 W at 20 °C · 4.5 L tank · PID control



ACS Material ALab™ CCP5-Mini Mini Low-Temperature Circulator

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SECTION I

Product Overview

The ALab™ CCP5-Mini Mini Low-Temperature Circulator supplies temperature-controlled coolant to laboratory equipment from a compact housing that fits on a bench, under a bench or in a fume hood. It covers a setpoint range from -20 °C to room temperature with ± 0.3 °C temperature stability, combining PID control with proportional refrigeration, and delivers 700 W of cooling capacity at a 20 °C coolant temperature. A maintenance-free pressure/suction pump adapts its pressure and flow to the connected load, drawing from a 4.5 L tank with a liquid-level window, overflow port and drain port.

SECTION II

Core Advantages

- **Compact installation** — bench, under-bench or fume-hood placement
- **700 W cooling capacity** — manufacturer figure at a 20 °C coolant temperature
- **PID + proportional refrigeration** — ± 0.3 °C stability, LED display resolving 0.1 °C
- **Self-adapting pump** — maintenance-free pressure/suction pump adapts to the connected load

SECTION III

Specifications

Technical data

Specifications	
Temperature Range	-20 °C to room temperature (upper limit follows ambient)
Temperature Stability	± 0.3 °C
Temperature Control	PID control with proportional refrigeration
Temperature Display	LED · display accuracy 0.1 °C
Cooling Capacity at 20 °C	700 W
Pump Pressure	0.3 bar
Pump Suction	0.2 bar
Maximum Pump Flow	22 L/Min
Tank Size	4.5 L
Cooling Water Tubing	Silicone insulation tube, 1.8 m × 2 pcs (supplied)
Connection Size	For silicone insulation tube of 8 mm inner diameter
Communication Interface	Optional RS232 / RS485

Specifications	
Low-Level Alarm	Optional
Heating Function	Optional
Dimensions [W×D×H]	220 × 420 × 495 mm
Operating Environment	5–32 °C
Power Supply	220 V / 50 Hz

The 700 W figure is published at a 20 °C coolant temperature; capacity at lower setpoints is not published and is lower. Pump pressure, suction and maximum flow are separate published limits; no pump curve is published.

Scope of delivery and connection

- Supplied: circulator, 1 unit
- Supplied: certificate, warranty card, operating manual
- Supply: 220 V / 50 Hz
- Supplied: silicone insulation tube, 1.8 m × 2 pcs
- Connection: for 8 mm inner-diameter insulation tube
- Options: RS232/485, low-level alarm, heating

SECTION IV

Applications

Typical applications for the ALab™ CCP5-Mini Mini Low-Temperature Circulator include:

- **Laboratory cooling** — cooling for rotary evaporators of the 3 L class and condensing reflux devices
- **Reaction and process systems** — reaction kettle systems and bioreactors
- **Distillation and extraction** — distillation systems, concentrators and extractors
- **Analytical instruments** — ultrasonic disruptors and continuous-flow analyzers

Product value: a compact circulator that fits on or under the bench, ±0.3 °C temperature stability from –20 °C to room temperature, and 700 W of cooling at a 20 °C coolant temperature with a self-adapting pressure/suction pump. Match the circulator to the condensing duty of your process; capacity at lower setpoints is not published and is lower than the 20 °C figure.

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