



Refrigerated and heated bath circulators

Customizable solutions designed to
meet your needs today and tomorrow

Arctic and Sahara Series refrigerated and heated bath circulators

Your application is as individual as you are. Bath circulators provide temperature-controlled fluid circulation to support diverse workflows in laboratory and process applications. Bath circulators support water conservation by replacing tap water for cooling and heating, saving thousands of dollars per year.

Using over 50 years of expertise, we designed Thermo Scientific™ bath circulators to meet the demands of temperature-control applications in scientific, research, and industrial labs. Our reliable immersion circulators can be used alone or with one of the bath solutions for analytical instrumentation, jacketed reactors, and rotary evaporators.

Customizable solutions designed to meet your needs today and tomorrow

- Extensive choice of temperature ranges, pumping capacities, and bath volumes, with leading warranty coverage
- Selection of intuitive displays to support your application and budget
- A range of accessories and inserts for sample security and management

Robust reliability even in the most demanding applications

- Digital control technology for precise temperature control and stability
- Powerful pumping capacity for external fluid circulation
- Corrosion-resistant stainless steel work area

Support for you and the environment

- Technical expertise and support at your fingertips
- Service provided by dedicated local, depot, and technical support team
- Sustainability in mind with water conservation, energy-saving options, and zero-waste manufacturing



Flexibility to customize

All systems and immersion circulators come standard with external circulation connections



Immersion circulators

Choice of 8 controllers that can be paired to an existing tank, vessel, or bath to heat the fluid



Bath circulators

Choice of heating and cooling temperature control with a large selection of stainless steel baths as well as economical polypropylene baths



Accessories

An extensive selection of accessories, from work area covers to racks and inserts to heat transfer fluids to provide ultimate flexibility

Immersion circulators

Thermo Scientific™ Standard, Advanced, and Premium Series heated immersion circulators offer advanced, precise sample temperature control. Powerful, integrated pumps ensure uniform temperature distribution for external circulations usage or internal temperature control.

- Programmable with temperature set points and ramping
- The controller can be indexed 90° for optimal viewing
- Real temperature adjustment (RTA) for calibration
- Audio/visual alarms for temperature and levels
- Adjustable pump speeds for flow or bath agitation
- Auto-restart after power failure
- On/off timer with real-time clock
- USB/serial communication options



Thermo Scientific™ SC100
Immersion Circulator



Thermo Scientific™ AC150
Immersion Circulator



Thermo Scientific™ PC200
Immersion Circulator

Standard (SC) Series—choose from 3 versions

Designed for ease of use with powerful pumping and heating capabilities for closed-loop applications, this economical choice offers solid performance for applications with temperatures ranging from +13°C above ambient to 150°C.

Advanced (AC) Series—choose from 2 versions

This series offers greater pumping performance, ramp programming, application alarms, and temperature ranges from +13°C above ambient to 200°C.

Premium (PC) Series—choose from 3 versions

This series is ideal for applications that require sophisticated control, multiple ramp programming, and extreme temperature performance, ranging from +13°C above ambient to 300°C.

| | Standard Series | | | Advanced Series | | Premium Series | | | |
|--|-------------------------|--|--------|---|-------|--|----------------|----------------|--|
| Model | SC100 | SC150 | SC150L | AC150 | AC200 | PC200 | PC201 | PC300 | |
| Maximum temperature (°C) | 100 | 150 | 150 | 150 | 200 | 200 | 200 | 300 | |
| Temperature stability (°C)** | 0.02 | | | 0.01 | | 0.01 | | | |
| Heater capacity (kW) 230 V/115 V | 2/1.2 | | | 2/1.2 | | 2/1.2 | 3 [†] | 3 [†] | |
| Maximum flow rate (L/min) | 17 | | | 20 | | 24 | | | |
| Maximum pressure (mbar/psi) | 300/4.35 | | | 475/6.89 | | 560/8.12 | | | |
| Maximum suction (mbar/psi) | – | | | 330/4.78 | | 380/5.51 | | | |
| Tank depth requirement (mm) | 150 | 150 | 200 | 150 | | 200 | | | |
| Programmable set point temperatures | 5 | | | | | | | | |
| Ramp programs | – | – | – | – | 1 | 10 | | | |
| High temperature warning | – | – | – | Yes | | Yes | | | |
| Low level warning | – | Yes | Yes | Yes | | Yes | | | |
| Application threshold alarm | – | – | – | Yes | | Yes | | | |
| Fluid selection with predefined temperature limits | – | Yes | | | | | | | |
| Remote sensor port | | | | Y | Y | Y | Y | Y | |
| USB port | | Y | Y | | Y | Y | Y | Y | |
| Multifunction port | | | | | Y | Y | Y | Y | |
| Safety | – | Automatic shutdown for high temperature, low liquid level, or motor overload | | | | | | | |
| Pump | 2 speed | | | 3 speed | | Incremental speed 40% to 100% | | | |
| Languages | English, German, French | | | English, German, French, Spanish, Italian | | English, German, French, Spanish, Italian, Chinese, Japanese | | | |

* In combination with a Thermo Scientific™ PT100 sensor probe (Cat. No. 3330818 and 3330429) connected to the external application.

** Temperature stability data measured according to DIN 12876.

† Available only in 230 V.

Thermo Scientific™ Arctic™ Series refrigerated bath circulators

Choose from multiple capacities with a variety of reservoir openings and depth dimensions for maximum application flexibility



Arctic Series refrigerated bath circulators

| Controller/bath | A10 | A25 | A45HC |
|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| SC100 | –10 to 100°C | –25 to 100°C | – |
| SC150 | –10 to 100°C | –25 to 150°C | – |
| SC150L | – | –25 to 150°C | –28 to 150°C |
| AC150 | –10 to 100°C | –25 to 150°C | – |
| AC200 | –10 to 100°C | –25 to 200°C | –45 to 200°C |
| PC200 | – | –25 to 200°C | –45 to 200°C |
| Cooling capacity at 20°C | 240 W | 500 W | 900 W |
| Maximum bath volume (liters)* | 6 | 12 | 12 |
| Work area (D x W x L) mm (in.) | 150 x 136.7 x 123.5 (5.9 x 5.4 x 4.9) | 200 x 173 x 183.7 (7.9 x 6.8 x 7.2) | 200 x 173 x 183.7 (7.9 x 6.8 x 7.2) |
| Net weight (kg/lb) | 27.5/60.6 | 36.1/79.5 | 55.2/121.5 |
| Compliance | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE |

* Fluid volume varies depending on the fluid used, temperature range, and items inserted in the reservoir.



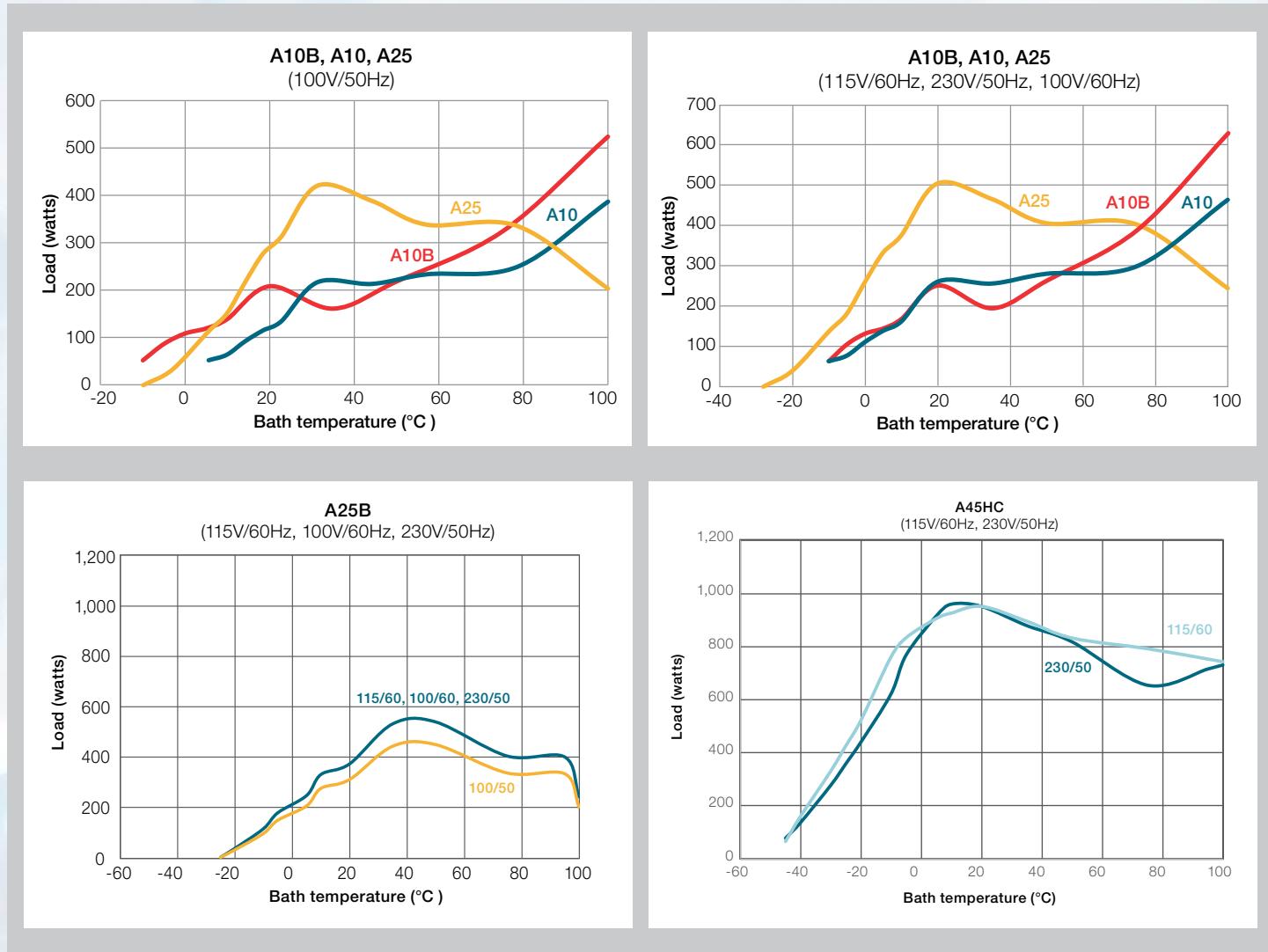
Arctic Series refrigerated bath circulators, continued

| Controller/bath | A10B | A25B |
|--|---------------------------------------|---------------------------------------|
| SC100 | –10 to 100°C | –25 to 100°C |
| SC150 | –10 to 100°C | –25 to 150°C |
| SC150L | – | – |
| AC150 | –10 to 100°C | –25 to 150°C |
| AC200 | –10 to 100°C | –25 to 200°C |
| PC200 | – | – |
| Cooling capacity at 20°C 230 V and 115 V | 240 W | 500 W |
| Maximum bath volume (liters)* | 30 | 21 |
| Work area (D x W x L) mm (in.) | 200 x 297.2 x 365 (7.9 x 11.7 x 13.4) | 233 x 223.8 x 243.8 (9.2 x 8.8 x 9.6) |
| Net weight (kg/lb) | 44.5/97.9 | 42.3/93.1 |
| Compliance | CE/ROHS/WEEE | CE/ROHS/WEEE |

* Fluid volume varies depending on the fluid used, temperature range, and items inserted in the reservoir.

Performance curves for refrigerated bath circulators

Cooling capacity



Specifications obtained at sea level using water (above 5°C to 90°C) or a fluid with a specific heat of 2.3 kJ/kg-K or 0.55 Btu/lb-F (less than 5°C) as the recirculating fluid at a 20°C ambient condition, at nominal operating voltage. Other fluids, process temperatures, ambient temperatures, altitude, or operating voltage will affect performance. Specifications are for reference only and are subject to change.