



Thermo Scientific Refrigerated and Heated Bath Circulators

Advanced, configurable solutions to meet
all your temperature control needs



your success circulates
at every degree

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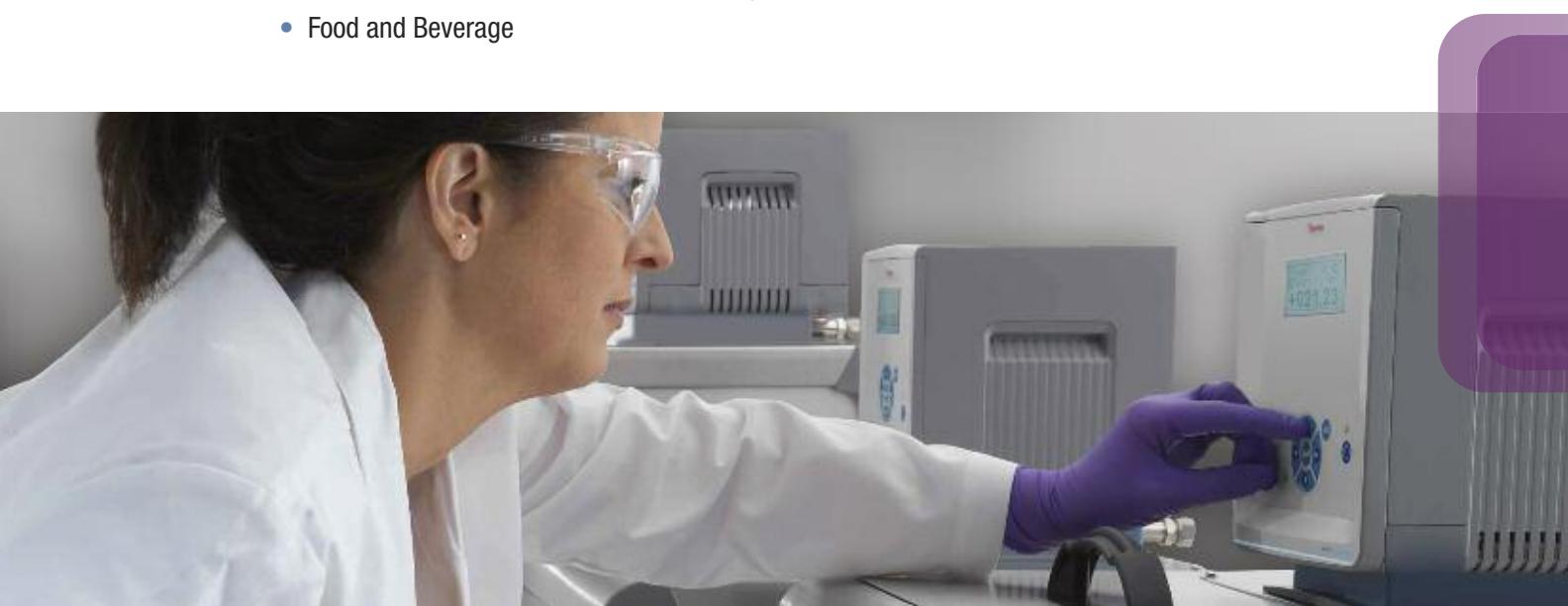
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Thermo
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Thermo Scientific temperature control products represent a giant leap forward in performance, features, configurability and technology.

Now you can configure the most flexible, cost-effective temperature control solutions for any application.

- Pharmaceutical
- BioTech
- Chemical/Petrochemical
- Food and Beverage
- QA/QC
- Research and Development
- Analytical Instruments



Environment-friendly Design

Utilize the energy savings mode to save up to 80% on energy costs and thousands of kilowatt hours during the life of the system.

- All units are RoHS/WEEE compliant
- Recycled packaging

Safe Operation

Units are CE Compliant (UL pending) ensuring safe operation.

- Optional IQ/OQ compliance

Ease of Use

All immersion circulators feature an intuitive user interface with bright display to view critical readings. Each system comes with a quick-start guide for simple set up and operation.

The controller can be indexed 90° for optimal viewing.

- Tool-less setup

Superior Warranty and Service

These products come with a 36-month warranty and are backed by Thermo Scientific service and support worldwide.

Swap Program: in the event the controller fails, it can be exchanged for a new controller at no cost to you for the life of the warranty.

Table of Contents

| | |
|--|----|
| Frequently Asked Questions | 2 |
| Immersion Circulator Comparison Table | 3 |
| Thermo Scientific STANDARD, ADVANCED & PREMIUM Heated Immersion Circulators | 4 |
| Thermo Scientific ARCTIC Series Refrigerated/Heated Bath Circulators | 6 |
| Thermo Scientific GLACIER Series Ultra-Low Temperature Refrigerated Bath Circulators | 12 |
| Thermo Scientific SAHARA Series Heated Bath Circulators | 14 |
| Accessories | 20 |
| Service and Support | 23 |
| Dimensions Chart | 24 |



Factors to consider before selecting your temperature control product

What is your application need?

Do you have an existing tank, vessel or bath and need to heat the fluids? Review the immersion circulators for the temperature control range and features that best suit your application requirements.

Do you need to circulate to an external application such as a rotary evaporator or bio reactor, or need to add heating or cooling to your application?

Consider Thermo Scientific refrigerated/heated bath circulators. All systems and immersion circulators come standard with the external circulation connections. Whether you have present or future use for external circulation you can always modify your immersion circulator, refrigerated or heated bath circulator to accomplish this in a few simple steps.

Does your temperature control application require a work area to place beakers or test tube racks?

We have a large selection of refrigerated bath circulators, heated stainless steel baths, as well as the economical PPO or Acrylic heated baths. These baths were designed to provide larger work areas to accommodate multiple beakers, test tube racks or incubation vessels.

How much cooling capacity will your application require?

Choose from multiple temperature ranges and temperature ramp rates required for your application. The heating and cooling capacity are specified in watts for each system. The corresponding heating and cooling curves will give you insight into how fast a system can heat or cool the volume of fluid to your required temperature set point.

Temperature specifications for heating baths state a minimum temperature of 'Ambient + 13°C'. This refers to the effect of 'heat soak' on the performance of these units that occurs when heat from the motor is conducted into the bath. Larger baths may lose heat quickly and may be able to accurately temperature control below the 'Amb + 13°C' threshold. Utilize a 'Cooling Coil' accessory or a refrigerated bath circulator to work in near ambient temperature conditions.

Frequently Asked Questions

Q: Does my unit come with external circulation connections?

A: Yes. The external circulation connections required to circulate the fluid from the bath to your application is a standard feature on all STANDARD, ADVANCED and PREMIUM controllers. Each ARCTIC refrigerated/heated bath and SAHARA heated bath is capable of circulating to an external application.

Q: How do I achieve more heating capacity for my application?

A: When choosing an immersion circulator, you have the ability to choose from different versions and voltages. By understanding the flexibility of your electrical supply you can increase the amount of heating capacity for your application.

For applications in North America, the ADVANCED or PREMIUM Series can be utilized with 208V single phase electrical supply, and gain between 67% and 250% more in heating capacity.

The table below illustrates the different electrical capabilities and heating capacities:

| Immersion Circulator | 100-115V 50-60Hz | 100V 50-60Hz | 115V 60Hz | 200-230V 50-60Hz | 230V-50Hz |
|----------------------|---------------------|-----------------|-----------------|---------------------|--------------|
| SC100 | – | 0.9kW @ 100V | 1.2kW @ 115V | – | 2kW @230V |
| SC150 | – | 0.9kW @ 100V | 1.2kW @ 115V | 2kW @ 230V | 2kW @230V |
| SC150L | – | 0.9kW @ 100V | 1.2kW @ 115V | 2kW @ 230V | 2kW @230V |
| AC150 | – | 0.9kW @ 100V | 1.2kW @ 115V | 2kW @ 230V | 2kW @230V |
| AC200 | – | 0.9kW @ 100V | 1.2kW @ 115V | 2kW @ 230V | 2kW @230V |
| PC200 | 1.2kW @ 115V | – | – | 2kW @ 230V | – |
| PC201 | – | – | – | 3kW @ 230V | – |
| PC300 | – | – | – | 3kW @ 230V | – |

Q: What is the difference between a refrigerated circulating bath and a refrigerated circulator?

A: A refrigerated circulating bath and a refrigerated circulator are very much alike. The defining attribute is that the work area of the refrigerated circulating bath is much larger than that of the refrigerated circulator. Accordingly, these types of systems are much larger overall than the refrigerated circulators due to the larger size of the bath (or work area).

- The refrigerated circulating bath design is focused on applications that require a large area within the bath to place samples, beakers and / or test tube racks, etc. Although the primary focus is the use of the bath, this system can still circulate externally.
- The refrigerated circulator can also be used for samples, test tube or beakers within its small bath. The difference is that the bath is much smaller and will not hold as many samples.

Q: When using silicone oil how does fluid expansion affect my application?

A: It is very important to take special precaution to ensure that your system is filled to the appropriate level to avoid overflowing the silicone oil out of the stainless steel bath onto the lab bench or other areas. It is absolutely critical to take every safety precaution and confirm all aspects of your system before setting the temperature parameters for extreme heating applications. We anticipate that for every 100°C in temperature within the bath that the fluid will expand 10%. However, depending on which immersion circulator you are utilizing the fluid expansion can range from 10% to 30%.

Note: The SAHARA stainless steel baths have been designed to be filled to the low level fluid safety cut out to enable the system to power up and start to temperature control. If filled properly to the low level, the expansion of the silicone oil will not overflow the tank at the immersion circulator's maximum temperature set point.

Q: How do I secure an immersion circulator to my tank or apparatus?

A: The model of immersion circulator will define the choices for your installation:

The STANDARD Series has a choice of the following:

- Stainless steel clamp that expands to 1" (25mm) and enables the installation of the immersion circulator to be installed on the lip of the tank or apparatus.
- Stainless steel bridge that allows the installation of a STANDARD Series immersion circulator to the legacy Haake stainless steel 'W' series baths.

The ADVANCED and PREMIUM immersion circulators are only available with a bridge.

An adjustable bridge that expands between 300mm and 800mm is available and will fit all immersion circulators. This kind of adjustable bridge is useful when the vessel is irregularly shaped.

Heated Immersion Circulator Comparison

Use the table below to **choose the immersion circulator that best fits your specific application requirements.**
Then, match the immersion circulator to a refrigerated or heated bath.

| Model | STANDARD series | | | ADVANCED series | | PREMIUM series | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | SC100 | SC150 | SC150L | AC150 | AC200 | PC200 | PC201 | PC300 |
| Specifications | | | | | | | | |
| Maximum temperature (°C) | 100 | 150 | 150 | 150 | 200 | 200 | 200 | 300 |
| Temperature stability (°C)*** | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Heater capacity (230V/115V) | 2kW/1.2kW | 2kW/1.2kW | 2kW/1.2kW | 2kW/1.2kW | 2kW/1.2kW | 2kW/1.2kW | 3kW** | 3kW** |
| Maximum flow rate (l/min) | 17 | 17 | 17 | 20 | 20 | 24 | 24 | 24 |
| Maximum pressure (mbar/psi) | 300/4.35 | 300/4.35 | 300/4.35 | 475/6.89 | 475/6.89 | 560/8.12 | 560/8.12 | 560/8.12 |
| Maximum suction (mbar/psi) | | | | 330/4.85 | 330/4.85 | 380/5.51 | 380/5.51 | 380/5.51 |
| Flow rate / pump speed steps | 2 | 2 | 2 | 3 | 3 | Adjustable**** | Adjustable**** | Adjustable**** |
| Fill level from top of tank (mm) | 60..18 | 60..18 | 105..18 | 63..18 | 63..18 | 63..18 | 63..18 | 63..18 |
| Tank depth requirement (mm) | 150 | 150 | 200 | 150 | 150 | 200 | 200 | 200 |
| Dimensions/Weight | | | | | | | | |
| Overall dimensions (mm) H x W x D | 336 x 138 x 199 | 336 x 138 x 199 | 384 x 138 x 199 | 372 x 165 x 199 | 372 x 165 x 199 | 421 x 189 x 233 | 421 x 189 x 233 | 421 x 189 x 233 |
| Overall dimensions (in) H x W x D | 13.2 x 5.4 x 7.8 | 13.2 x 5.4 x 7.8 | 15.1 x 5.4 x 7.8 | 14.6 x 6.4 x 7.8 | 14.6 x 6.4 x 7.8 | 16.6 x 7.4 x 9.2 | 16.6 x 7.4 x 9.2 | 16.6 x 7.4 x 9.2 |
| Net weight (kg) | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | 4.7 | 4.7 | 4.7 |
| Safety & Compliance | | | | | | | | |
| Safety class acc. DIN12876 | 1 / NFL | 3 / FL |
| IQ/OQ | Optional |
| Alarm Type | | | | | | | | |
| High temperature alarm | • | • | • | • | • | • | • | • |
| Low level alarm | | • | • | • | • | • | • | • |
| Refrigeration alarm | • | • | • | • | • | • | • | • |
| Application threshold alarm | | | | • | • | • | • | • |
| Application alarm (external)* | | | | Optional | Optional | Optional | Optional | Optional |
| Alarm Indicators | | | | | | | | |
| Acoustic/Optical alarm | • | • | • | • | • | • | • | • |
| Connectivity | | | | | | | | |
| Remote sensor port | | | | • | • | • | • | • |
| USB port | | • | • | | • | • | • | • |
| Multi function port | | | | | • | • | • | • |
| RS232/RS485/Ethernet/LAN | | Optional |
| Analog I/O | | Optional | Optional | | Optional | Optional | Optional | Optional |
| Information Displayed on Screen | | | | | | | | |
| High temperature warning | | | | • | • | • | • | • |
| Low level warning | | • | • | • | • | • | • | • |
| High level warning | | | | • | • | • | • | • |
| Date & Time | | | | | • | • | • | • |
| Features | | | | | | | | |
| Energy saving mode | • | • | • | • | • | • | • | • |
| RTA | • | • | • | • | • | • | • | • |
| °C/°F/°K selection | • | • | • | • | • | • | • | • |
| Auto restart | • | • | • | • | • | • | • | • |
| System temperature limits | • | • | • | • | • | • | • | • |
| Application temperature limits | • | • | • | • | • | • | • | • |
| Solenoid valve for tap water | | | | | Optional | Optional | Optional | Optional |
| On/Off timer | • | • | • | • | • | • | • | • |
| Preset setpoint temperatures | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Ramp programs | | | | | 1 | 10 | 10 | 10 |
| Real time clock | • | • | • | • | • | • | • | • |
| Multiple languages | 3 | 3 | 3 | 3 | 3 | 7 | 7 | 7 |

*In combination with a PT100 sensor probe connected to the external application. **Available only in 230V

Temperature stability data measured according to DIN 12876. *Adjustable from 40% to 100%.

Versatile in a Wide Range of Performance Levels

The new STANDARD, ADVANCED, and PREMIUM Series heated immersion circulators offer outstanding, precise temperature control. Choose from three levels of performance with multiple features, options, and benefits. Whether used alone or matched up with one of the refrigerated or heated baths, we offer a temperature control solution that will meet your needs.

The STANDARD (SC) Series

Choose from three versions.

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

The ADVANCED (AC) Series

Choose from two versions.

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

The PREMIUM (PC) Series

Choose from three versions.

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

What's included:

8mm and 12mm hose barbs with clamps or bridge, pump plug for external circulation, 6-ft. power cord, 3-year warranty.



SC100

SC150

SC150L

AC150

- Maximum temperature: 100°C
- Five programmable set point temperatures
- RTA (Real Temperature Adjustment) for calibration
- Two levels of pump speed adjustment to increase flow or bath agitation
- Three languages (English, German, French)
- Change digital display resolution between 0.1 and 0.01 and between °C – °F – °K
- Acoustic and visual alarm
- Auto-Restart feature after power failure

All of the SC 100 immersion circulator features, PLUS–

- Maximum temperature: 150°C
- Early-warning alert for fluid refill
- Automatic controller shut-down at detection of excessive high temperature, low liquid level, or motor overload
- Communication options for:
RS232
RS485
Ethernet/LAN
Analog I/O

All of the SC 150 immersion circulator features, PLUS–

- Maximum temperature: 150°C
- Increased immersion depth to accommodate larger or deeper baths

All STANDARD immersion circulator features, PLUS–

- Maximum temperature: 150°C
- Pump speed adjustment to three levels for turbulence control
- Powerful force & suction pump for external open and closed applications
- Internal or external temperature control mode (Remote Sensor, NAMUR type)
- Programmable application temperature alarm with user selected alarm, go-safe-state or shut off option
- Fluid selection with predefined temperature limits
- Five languages (English, German, French, Spanish, Italian)

Immersion Circulators

To purchase immersion circulators separately, please use the information below.

| Immersion Circulator | Order No. | | | | |
|----------------------|----------------------|--------------|-----------|----------------------|-----------|
| | 100-115V/ 50-60Hz | 100V/50-60Hz | 115V/60Hz | 200-230V/ 50-60Hz | 230V/50Hz |
| Voltage | | | | | |
| SC 100 | | 152-0006 | 152-0008 | | 152-0001 |
| SC 100 w/clamp | | 152-0016 | 152-0018 | | 152-0011 |
| SC 150 | | 153-0006 | 153-0008 | | 153-0001 |
| SC 150 w/clamp | | 153-0016 | 153-0018 | | 153-0011 |
| SC 150L | | 154-0006 | 154-0008 | | 154-0001 |
| SC 150L w/clamp | | 154-0016 | 154-0018 | | 154-0011 |
| AC 150 | | 155-0006 | 155-0008 | 155-0001 | 155-0001 |
| AC 150 | | 155-0026 | 155-0028 | 155-0021 | 155-0021 |
| AC 200 | | 156-0006 | 156-0008 | 156-0001 | 156-0001 |
| AC 200 w/bridge | | 156-0026 | 156-0028 | 156-0021 | 156-0021 |
| PC 200 | 157-0002 | | | 157-0005 | |
| PC 200 w/bridge | 157-0022 | | | 157-0025 | |
| PC 201 | | | | 158-0005 | |
| PC 201 w/bridge | | | | 158-0025 | |
| PC 300 | | | | 159-0005 | |
| PC 300 w/bridge | | | | 159-0025 | |

Useful accessories:

- Tap water cooling coil
- Solenoid valve for use with the tap water cooling coil (for AC200 controller and up)
- Pump/heater coil cage (SC100, SC150, SC150L controller only)
- Universal adjustable bridge
- External temperature probe (for AC200 controller and up)

See page 20 for complete list of available accessories.

Certification: 



AC200

PC200

PC201

PC300

All of the AC 150 immersion circulator features, PLUS–

- Maximum temperature: 200°C
- One ramp program
- On/Off timer with real time clock for time-critical applications
- USB port

All of the ADVANCED immersion circulator features, PLUS–

- Maximum temperature: 200°C
- Incremental pump speed adjustment
- Seven languages (English, German, French, Spanish, Italian, Chinese, and Japanese)
- Ten ramp programs

All of the PC 200 immersion circulator features, PLUS–

- Maximum temperature: 200°C
- 3.0 Kw heater for faster time to temperature
- All stainless steel pump with ceramic rotors

All of the PC 201 immersion circulator features, PLUS–

- Maximum temperature: 300°C
- 3.0 Kw heater for faster time to temperature
- All stainless steel pump with ceramic rotors

Thermo Scientific ARCTIC Series Refrigerated/Heated Bath Circulators

Multiple configurations allow the perfect fit for your external circulation applications.

Superior cooling power, expansive temperature ranges, powerful force/suction pumps, and sophisticated digital control technology to ensure accuracy and reproducibility of your liquid temperature control procedures. Six controller options allow you the flexibility to choose the right model for your application.

- Drain port at the front for operator convenience.
- Advanced design allows two sides of the unit to be blocked, allowing placement in a corner while maintaining full refrigeration performance.
- For less demanding applications, power consumptions can be lowered by utilizing the energy savings mode.
- Swap Program: in the event the controller fails, it can be exchanged for a new controller at no cost to you for the life of the warranty.
- The controller can be indexed 90° for easier viewing.



Typical applications:

- Calibration
- Bioreactors
- Rotary Evaporators
- Condensers
- Sample/Material Testing
- Sample/Material Preparation

What's Included: control cables, bridge with gasket and thumbscrews, 8mm and 12mm hose barbs with clamps, external circulation plumbing, 6-ft. power cord, work area cover, 3-year warranty



| Controller ▼ | Bath ► | A10 |
|------------------------------------|--------|---------------------------------------|
| SC100 | | -10 to 100°C |
| SC150 | | -10 to 100°C |
| SC150L | | — |
| AC150 | | -10 to 100°C |
| AC200 | | -10 to 100°C |
| PC200 | | — |
| Cooling capacity at 20°C 230V/115V | | 240W |
| Maximum bath volume (liters)* | | 6 |
| Work area (DxWxL) mm/in | | 150 x 136.7 x 123.5 / 5.9 x 5.4 x 4.9 |
| Net weight (kg/lb) | | 27.5/60.6 |
| Compliance | | CE/ROHS/WEEE |

Ordering information:

| Model | A10 | | |
|------------------|-----------|-----------|--------------|
| Voltages | 115V/60Hz | 230V/50Hz | 100V/50-60Hz |
| SC100 plus Bath | 152-5108 | 152-5101 | 152-5106 |
| SC150 plus Bath | 153-5108 | 153-5101 | 153-5106 |
| SC150L plus Bath | — | — | — |
| AC150 plus Bath | 155-5108 | 155-5101 | 155-5106 |
| AC200 plus Bath | 156-5108 | 156-5101 | 156-5106 |
| PC200 plus Bath | | | |

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

Bath Circulators

-40°C to +200°C

Useful Accessories:

- Fluid Displacement Block
- Auto-refill (AC200 controller and above)
- Trolley (A25, A28, and A40 models only)
- External Temperature Probe (AC150 controller and above)
- Fluids

See page 20 for complete list of available accessories.

Overall dimensions can be found on page 24-25.



| A25 | A28 | A28F | A40 |
|-----------------------------------|---------------------------------|---------------------------------|-----------------------------------|
| -25 to 100°C | -28 to 100°C | -28 to 100°C | — |
| -25 to 150°C | -28 to 150°C | -28 to 150°C | -28 to 150°C |
| -25 to 150°C | -28 to 150°C | -28 to 150°C | -28 to 150°C |
| -25 to 150°C | -28 to 150°C | -28 to 150°C | -28 to 150°C |
| -25 to 200°C | -28 to 200°C | -28 to 200°C | -40 to 200°C |
| -25 to 200°C | -28 to 200°C | -28 to 200°C | -40 to 200°C |
| 500W | 320W | 320W | 900W |
| 12 | 10 | 10 | 12 |
| 200 x 173 x 183.7 / 8 x 6.8 x 7.2 | 200 x 173 x 129 / 8 x 6.8 x 5.1 | 200 x 173 x 129 / 8 x 6.8 x 5.1 | 200 x 173 x 183.7 / 8 x 6.8 x 7.2 |
| 36.1/79.5 | 36/79.1 | 35.6/78.3 | 55.2/121.5 |
| CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE |

| A25 | | | | A28 | | | | A28F | | | | A40 | | | |
|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|--|
| 115V/60Hz | 230V/50Hz | 100V/50-60Hz | |
| 152-5258 | 152-5251 | 152-5256 | 152-5288 | 152-5281 | 152-5286 | 152-4288 | 152-4281 | 152-4286 | — | — | — | 153-5408 | 153-5401 | 153-5406 | |
| 153-5258 | 153-5251 | 153-5256 | 153-5288 | 153-5281 | 153-5286 | 153-4288 | 153-4281 | 153-4286 | 154-5408 | 154-5401 | 154-5406 | 155-5408 | 155-5401 | 155-5406 | |
| 154-5258 | 154-5251 | 154-5256 | 154-5288 | 154-5281 | 154-5286 | 154-4288 | 154-4281 | 154-4286 | 156-5408 | 156-5401 | 156-5406 | 157-5408 | 157-5401 | 157-5406 | |
| 155-5258 | 155-5251 | 155-5256 | 155-5288 | 155-5281 | 155-5286 | 155-4288 | 155-4281 | 155-4286 | 157-5408 | 157-5401 | 157-5406 | 158-5408 | 158-5401 | 158-5406 | |
| 156-5258 | 156-5251 | 156-5256 | 156-5288 | 156-5281 | 156-5286 | 156-4288 | 156-4281 | 156-4286 | 158-5408 | 158-5401 | 158-5406 | 159-5408 | 159-5401 | 159-5406 | |
| 157-5258 | 157-5251 | 157-5256 | 157-5288 | 157-5281 | 157-5286 | 157-4288 | 157-4281 | 157-4286 | 159-5408 | 159-5401 | 159-5406 | 160-5408 | 160-5401 | 160-5406 | |

Large work area enables high throughput and work flow efficiency.

Stainless steel reservoir, offered in multiple capacities with a variety of reservoir openings and depth dimensions for maximum application flexibility.

- Advanced design allows two sides of the unit to be blocked, allowing placement in a corner while maintaining full refrigeration performance.
- For less demanding applications, power consumption can be lowered by utilizing the energy savings mode.
- Up to six different controller heads can be selected to best fit your application needs.
- The controller can be indexed 90° for easier viewing.
- Drain port at the front for operator convenience.

What's Included: Control cables, bridge with gasket and thumbscrews, 8mm and 12mm hose barbs with clamps, external circulation plumbing, 6-ft. power cord, A24B and A25B models include the work area cover, 3-year warranty

| Controller ▼ | Bath ► |
|------------------------------------|--------|
| SC100 | |
| SC150 | |
| SC150L | |
| AC150 | |
| AC200 | |
| PC 200 | |
| Cooling capacity at 20°C 230V/115V | |
| Maximum bath volume (liters)* | |
| Work area (DxWxL) mm/in | |
| Net weight (kg/lb) | |
| Compliance | |
| Ordering information: | |
| Model | |
| Voltages | |
| SC100 plus Bath | |
| SC150 plus Bath | |
| SC150L plus Bath | |
| AC150 plus Bath | |
| AC200 plus Bath | |
| PC200 plus Bath | |

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

** Work area cover must be purchased separately.

Typical applications:

- Calibration
- Bioreactors
- Rotary Evaporators
- Condensers
- Sample/Material Testing
- Sample/Material Preparation

Bath Circulators

-25°C to +200°C

Useful Accessories:

- Auto-refill (AC200 controller and above)
- External Temperature Probe (AC150 controller and above)
- Work Area Cover
- Lifting Platform
- Test Tube Racks
- Fluids

See page 20 for complete list of available accessories.

Overall dimensions can be found on page 24-25.

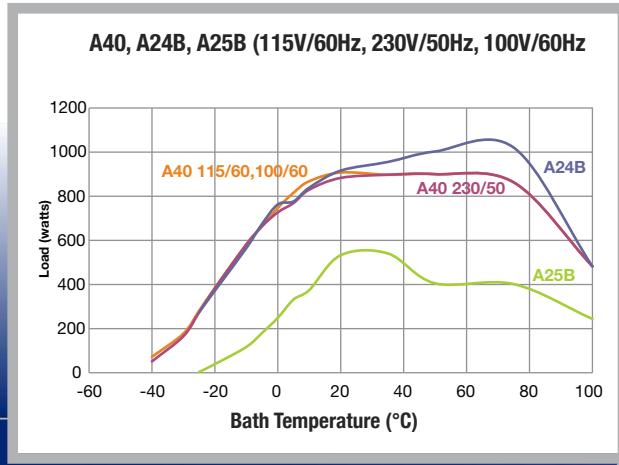
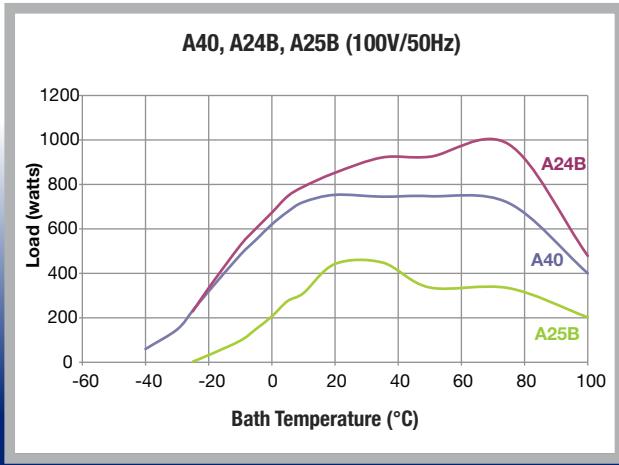
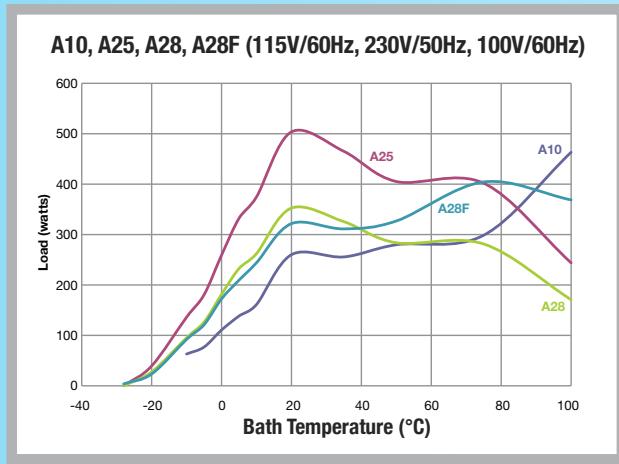
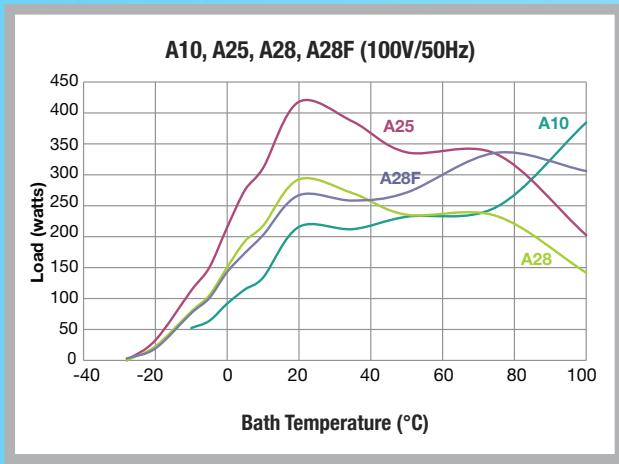
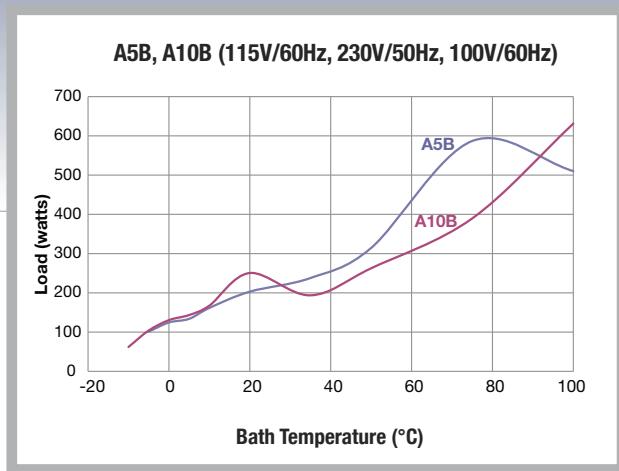
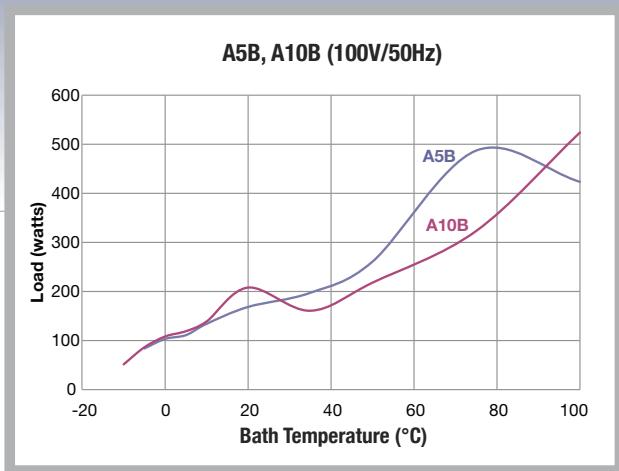


| A5B** | A10B** | A24B | A25B |
|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| -5 to 100°C | -10 to 100°C | -24 to 100°C | -25 to 100°C |
| -5 to 100°C | -10 to 100°C | -24 to 150°C | -25 to 150°C |
| — | — | -24 to 150°C | — |
| -5 to 100°C | -10 to 100°C | -24 to 150°C | -25 to 150°C |
| -5 to 100°C | -10 to 100°C | -24 to 200°C | -25 to 200°C |
| — | — | -24 to 200°C | — |
| 200W | 250W | 900W | 500W |
| 21 | 30 | 27 | 21 |
| 200 x 297.2 x 190 / 7.9 x 11.7 x 7.5 | 200 x 297.2 x 365 / 7.9 x 11.7 x 13.4 | 200 x 297.2 x 313.4 / 8 x 11.7 x 12.3 | 233 x 223.8 x 243.8 / 9.2 x 8.8 x 9.6 |
| 40/88.9 | 44.5/97.9 | 58.6/128.9 | 42.3/93.1 |
| CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE |

| A5B | | | | A10B | | | | A24B | | | | A25B | | | |
|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|------|--|--|--|
| 115V/60Hz | 230V/50Hz | 100V/50-60Hz | | | | |
| 152-4058 | 152-4051 | 152-4056 | 152-4108 | 152-4101 | 152-4106 | 152-4248 | 152-4241 | 152-4246 | 152-4258 | 152-4251 | 152-4256 | | | | |
| 153-4058 | 153-4051 | 153-4056 | 153-4108 | 153-4101 | 153-4106 | 153-4248 | 153-4241 | 153-4246 | 153-4258 | 153-4251 | 153-4256 | | | | |
| — | — | — | — | — | — | 154-4248 | 154-4241 | 154-4246 | — | — | — | | | | |
| 155-4058 | 155-4051 | 155-4056 | 155-4108 | 155-4101 | 155-4106 | 155-4248 | 155-4241 | 155-4246 | 155-4258 | 155-4251 | 155-4256 | | | | |
| 156-4058 | 156-4051 | 156-4056 | 156-4108 | 156-4101 | 156-4106 | 156-4248 | 156-4241 | 156-4246 | 156-4258 | 156-4251 | 156-4256 | | | | |
| — | — | — | — | — | — | 157-4248 | 157-4241 | 157-4246 | — | — | — | | | | |

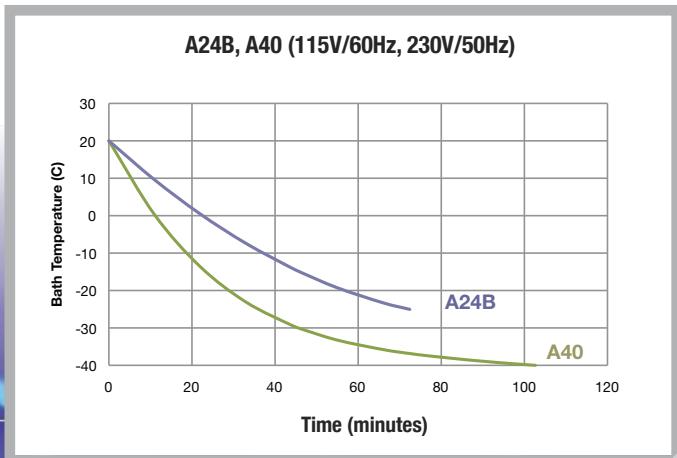
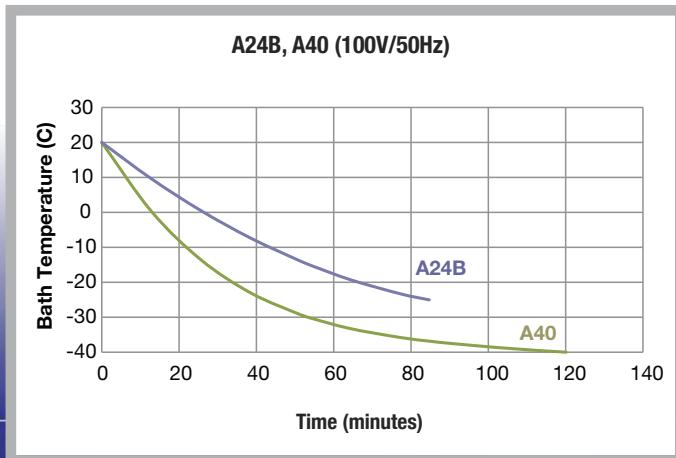
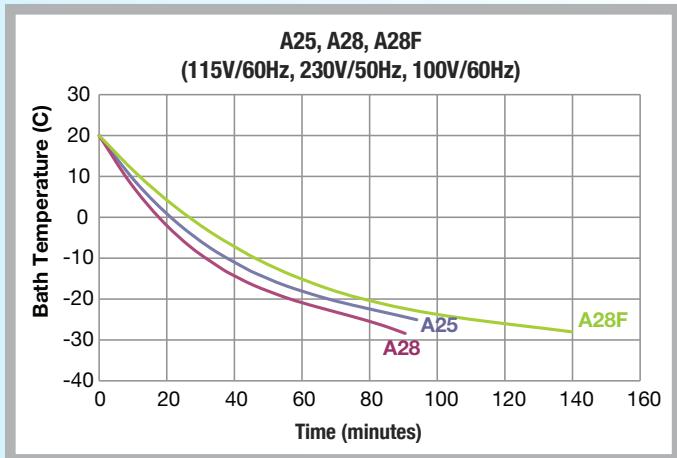
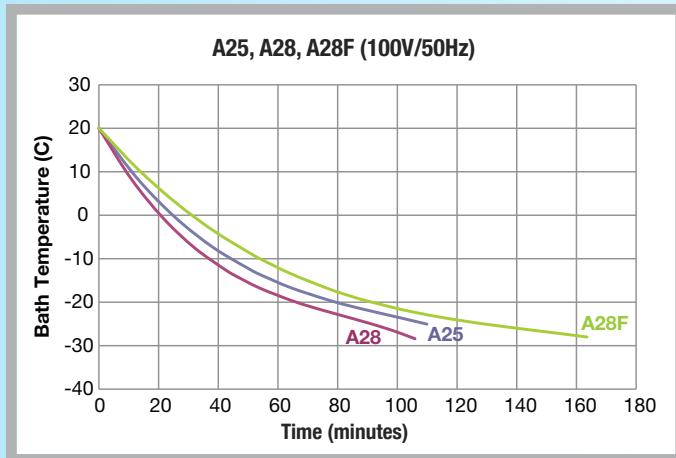
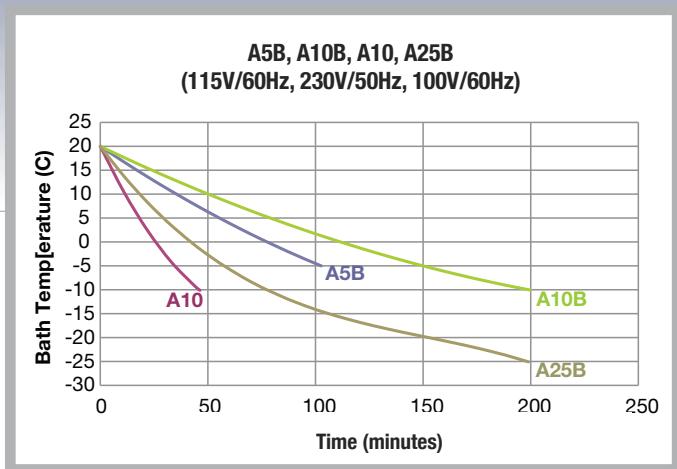
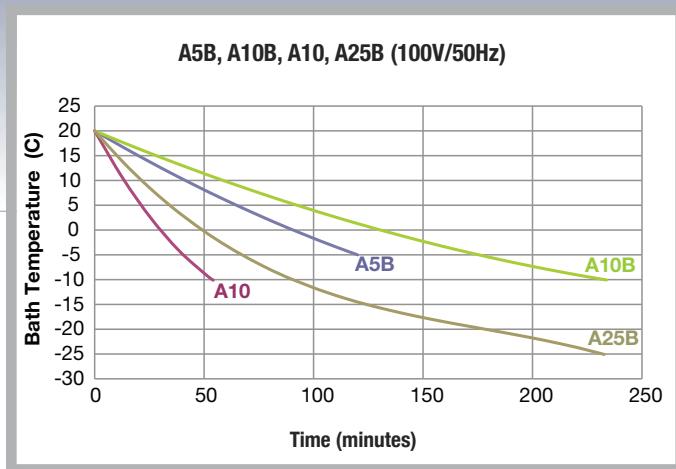
Performance Curves for Refrigerated Baths and Circulators

Cooling Capacity



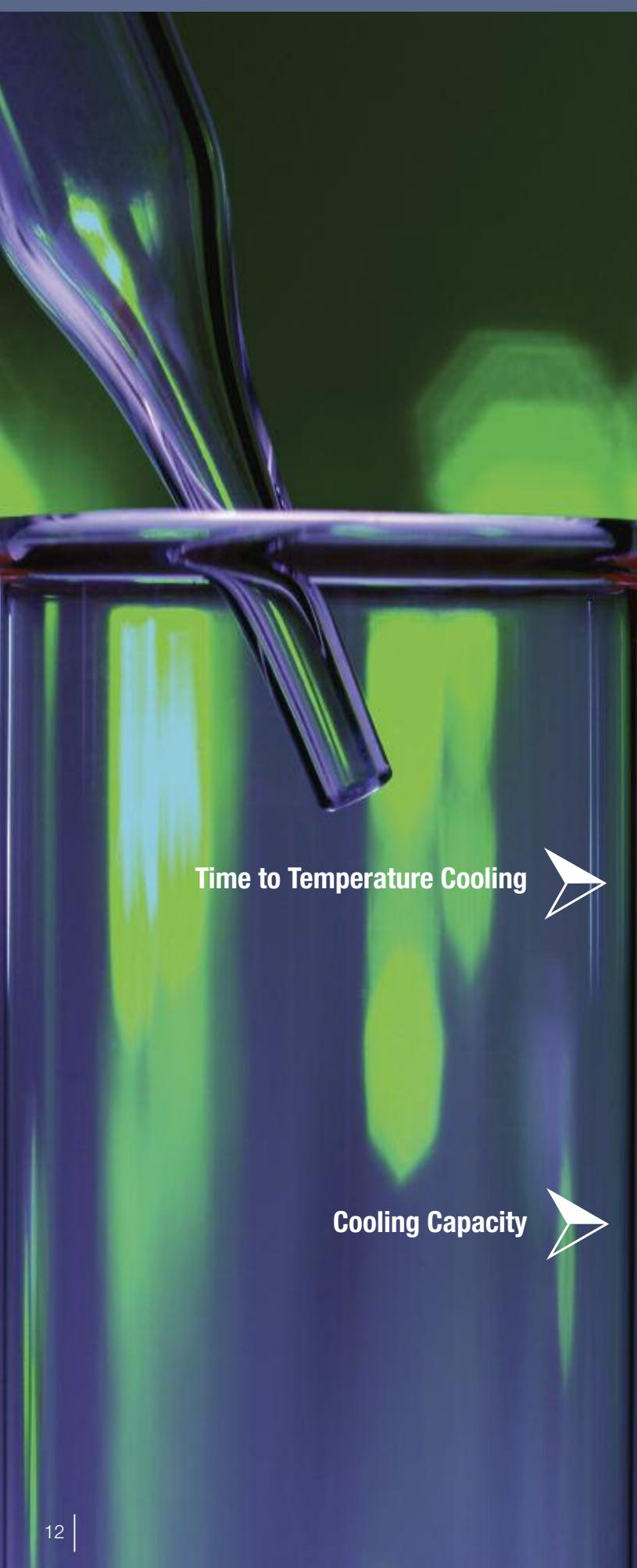
Performance Curves

➤ Time to Temperature – Cooling



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. Pump specifications are nominal values of ±10%. Specifications are for reference only and are subject to change.

Thermo Scientific GLACIER Series Ultra-low Temperature Refrigerated Bath Circulator

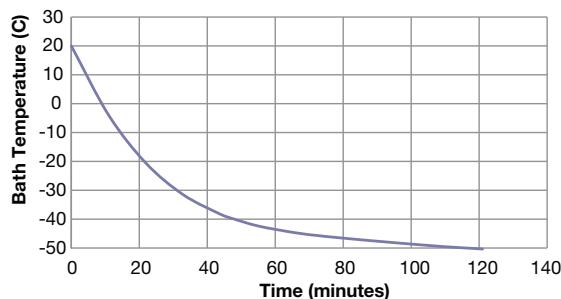


A cost effective ultra-low temperature refrigerated circulator with extreme temperature performance.

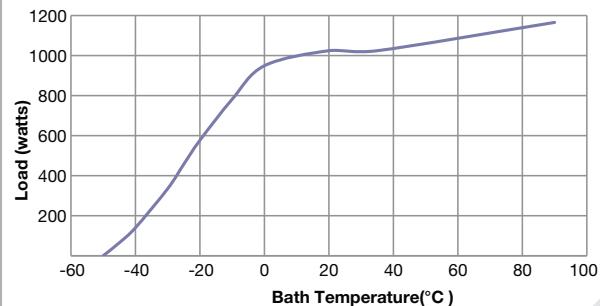
This circulator delivers high heating and cooling capacities for rapid heat-up and cool-down times. Fitted with locking castors, drainport, and handles – a perfect fit for any environment.

- Designed with heated tank top to avoid ice build up.
- Effective cooling capacity at ultra low temperatures allows you to reach your specific application temperature requirement.
- Clamped work area cover.
- Insulated supply and return ports eliminate ice build up and process temperature variation.

G50 (208-230V/60Hz, 230V/50Hz, 200V/50-60Hz)



G50 (208-230V/60Hz,-60Hz, 230V/50Hz, 200V/50-60Hz)



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. Pump specifications are nominal values of ±10%. Specifications are for reference only and are subject to change.

ULT Circulators

-50°C to +200°C



Typical applications:

- Jacketed Reaction Vessels
- Material Testing
- Analytical Instrumentation
- Calibration
- Condensers
- Crystallization



What's Included: Control cables, bridge with gasket and thumbscrews, 8mm and 12mm hose barbs with clamps, external circulation plumbing, 6-ft. power cord, sealed work area cover, 3-year warranty

| Controller ▼ | Bath ▶ | G50 |
|-------------------------------|-----------|--|
| AC200 | | -50 to 200°C |
| PC200 | | -50 to 200°C |
| Maximum bath volume (liters)* | | 12 |
| Cooling capacity at 20°C | | 1000W |
| Work area (DxWxL) (mm/in) | | 200 x 208.5 x 104.2 / 7.9 x 8.8 x 4.75 |
| Net Weight (kg/lb) | | 62/137 |
| Compliance | | CE/ROHS/WEEE |
| Ordering Information | | |
| Model | G50 | |
| Voltages | 230V/50Hz | 200-230V/60Hz; 200V/50Hz |
| AC200 plus Bath | 156-6501 | 156-6509 |
| PC200 plus Bath | 157-6501 | 157-6509 |

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

Thermo Scientific SAHARA Series Heated Bath Circulators

When your application requires high temperature, rely on these durable, seamless stainless steel baths.

Available in capacities from 5 to 51 liters with a variety of work area dimensions to meet your application needs.

- Up to 8 different controllers can be selected that best fit your application needs
- The controller can be indexed 90° for easier viewing



Typical applications:

- Viscometers
- Spectrophotometers
- Refractometers
- Metrology



Stainless Steel

+13°C to +300°C



| Controller ▾ Bath ► | S3 | S7 | S13 | S15 |
|-------------------------------|--|--|--|---|
| SC100 | Amb +13 to 100°C |
| SC150 | Amb +13 to 150°C |
| SC150L | — | Amb +13 to 150°C | Amb +13 to 150°C | Amb +13 to 150°C |
| AC150 | Amb +13 to 150°C |
| AC200 | Amb +13 to 200°C |
| PC200 | — | Amb +13 to 200°C | Amb +13 to 200°C | Amb +13 to 200°C |
| PC201 | — | Amb +13 to 200°C | Amb +13 to 200°C | Amb +13 to 200°C |
| PC300 | — | Amb +13 to 300°C | Amb +13 to 300°C | Amb +13 to 300°C |
| Maximum bath volume (liters)* | 6 | 8 | 12 | 17 |
| Work area (D x W x L) mm (in) | 150 x 154.2 x 111.9 (5.9 x 6.1 x 4.4) | 200 x 154.2 x 111.9 (7.3 x 6.1 x 4.4) | 200 x 111.9 x 239.3 (7.9 x 4.4 x 9.4) | 200 x 299.5 x 140.9 (7.9 x 11.8 x 5.5) |
| Net weight (kg/lb) | 9.8/21.5 | 10.6/23.4 | 12.3/27 | 13.7/30.1 |
| Compliance | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE |

Ordering information

| Model | S3 | | | S7 | | | S13 | | | S15 | | |
|-------------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|
| Voltages | 115V/60Hz | 230V/50Hz | 100V/50-60Hz |
| SC100 plus Bath | 152-1038 | 152-1031 | 152-1036 | 152-1078 | 152-1071 | 152-1076 | 152-1138 | 152-1131 | 152-1136 | 152-1158 | 152-1151 | 152-1156 |
| SC150 plus Bath | 153-1038 | 153-1031 | 153-1036 | 153-1078 | 153-1071 | 153-1076 | 153-1138 | 153-1131 | 153-1136 | 153-1158 | 153-1151 | 153-1156 |
| SC150L plus Bath | — | — | — | 154-1078 | 154-1071 | 154-1076 | 154-1138 | 154-1131 | 154-1136 | 154-1158 | 154-1151 | 154-1156 |
| AC150 plus Bath | 155-1038 | 155-1031 | 155-1036 | 155-1078 | 155-1071 | 155-1076 | 155-1138 | 155-1131 | 155-1136 | 155-1158 | 155-1151 | 155-1156 |
| AC200 plus Bath | 156-1038 | 156-1031 | 156-1036 | 156-1078 | 156-1071 | 156-1076 | 156-1138 | 156-1131 | 156-1136 | 156-1158 | 156-1151 | 156-1156 |
| Voltages | 100-115V/50-60Hz | | 200-230V/50-60Hz |
| PC200 plus Bath | — | — | — | 157-1072 | — | 157-1075 | — | 157-1132 | — | 157-1135 | — | 157-1152 |
| PC201 plus Bath | — | — | — | — | — | 158-1075 | — | — | — | 158-1135 | — | — |
| PC300 plus Bath | — | — | — | — | — | 159-1075 | — | — | — | 159-1135 | — | — |

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

For applications utilizing these baths from temperatures of 50°C and below, please see page 2.

Whether you need internal or external circulation, choose from a wide selection of heating bath circulators for efficient heating. Rugged and corrosion-resistant for high temperature applications up to 300°C.

What's Included: Control cables, bridge with gasket and thumbscrews, 8mm and 12mm hose barbs with clamps, external circulation plumbing 6-ft power cord, work area cover (not included with models S45 and S49), 3-year warranty

Useful accessories:

- Tap Water Cooling Coil
- Solenoid Valve for Tap Water Cooling Coil (AC200 controller and above)
- Auto-refill (AC200 controller and above)
- External Temperature Probe (AC150 controller and above)
- Work Area Cover (S45 and S49 models only)
- Lifting Platform
- Test Tube Racks
- Fluids

See page 20 for complete list of available accessories.
Overall dimensions can be found on page 24-25.

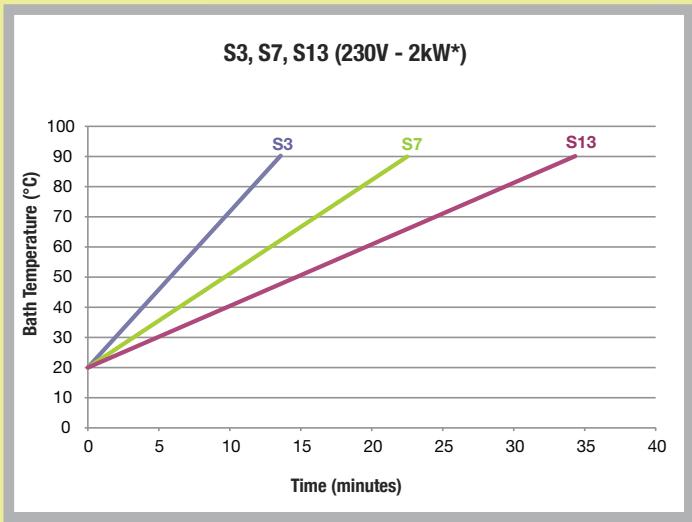
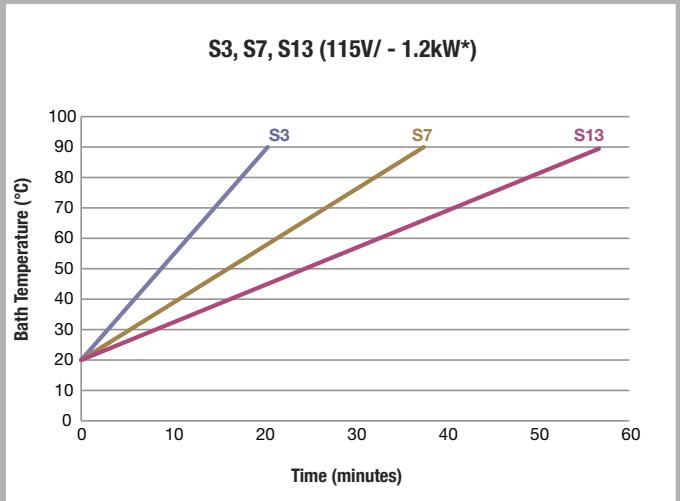


| S21 | S30 | S45 | S49 |
|--|--|---|--|
| Amb +13 to 100°C | Amb +13 to 100°C | Amb +13 to 100°C | Amb +13 to 100°C |
| Amb +13 to 150°C | Amb +13 to 150°C | Amb +13 to 150°C | Amb +13 to 150°C |
| — | Amb +13 to 150°C | Amb +13 to 150°C | Amb +13 to 150°C |
| Amb +13 to 150°C | Amb +13 to 150°C | Amb +13 to 150°C | Amb +13 to 150°C |
| Amb +13 to 200°C | Amb +13 to 200°C | Amb +13 to 200°C | Amb +13 to 200°C |
| — | Amb +13 to 200°C | Amb +13 to 200°C | Amb +13 to 200°C |
| — | Amb +13 to 200°C | Amb +13 to 200°C | Amb +13 to 200°C |
| — | | — | — |
| 19 | 26 | 41 | 53 |
| 150 x 296.5 x 311.9 (5.9 x 11.7 x 12.3) | 200 x 296.5 x 311.9 (7.9 x 11.7 x 12.3) | 300 x 298.1 x 311.9 (11.8 x 11.7 x 12.3) | 200 x 498 x 429.9 (7.9 x 19.6 x 16.9) |
| 14.2/31.2 | 16.5/36.2 | 20.3/44.7 | 24.3/53.4 |
| CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE |

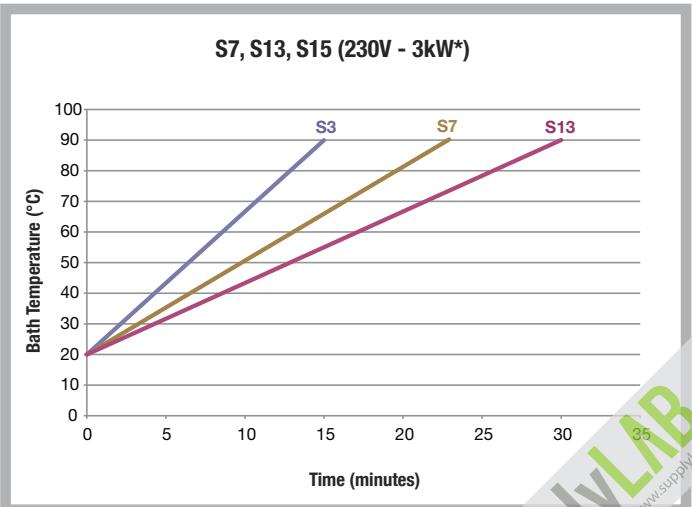
| S21 | | S30 | | | | S45 | | | | S49 | | | |
|------------------|-----------|------------------|-----------|------------------|--------------|------------------|-----------|------------------|-----------|------------------|--------------|------------------|-----------|
| 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz |
| 152-1218 | 152-1211 | 152-1216 | 152-1308 | 152-1301 | 152-1306 | 152-1458 | 152-1451 | 152-1456 | 152-1498 | 152-1491 | 152-1496 | | |
| 153-1218 | 153-1211 | 153-1216 | 153-1308 | 153-1301 | 153-1306 | 153-1458 | 153-1451 | 153-1456 | 153-1498 | 153-1491 | 153-1496 | | |
| | | | 154-1308 | 154-1301 | 154-1306 | 154-1458 | 154-1451 | 154-1456 | 154-1498 | 154-1491 | 154-1496 | | |
| 155-1218 | 155-1211 | 155-1216 | 155-1308 | 155-1301 | 155-1306 | 155-1458 | 155-1451 | 155-1456 | 155-1498 | 155-1491 | 155-1496 | | |
| 156-1218 | 156-1211 | 156-1216 | 156-1308 | 156-1301 | 156-1306 | 156-1458 | 156-1451 | 156-1456 | 156-1498 | 156-1491 | 156-1496 | | |
| 100-115V/50-60Hz | | 200-230V/50-60Hz | | 100-115V/50-60Hz | | 200-230V/50-60Hz | | 100-115V/50-60Hz | | 200-230V/50-60Hz | | 100-115V/50-60Hz | |
| — | — | — | 157-1302 | — | 157-1305 | — | 157-1452 | — | 157-1455 | — | 157-1492 | — | 157-1495 |
| — | — | — | — | — | 158-1305 | — | — | — | 158-1455 | — | — | — | 158-1495 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — |

Performance Curves for Heated Bath Circulators

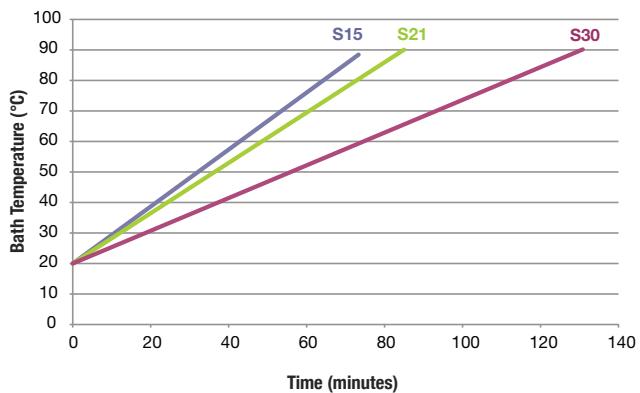
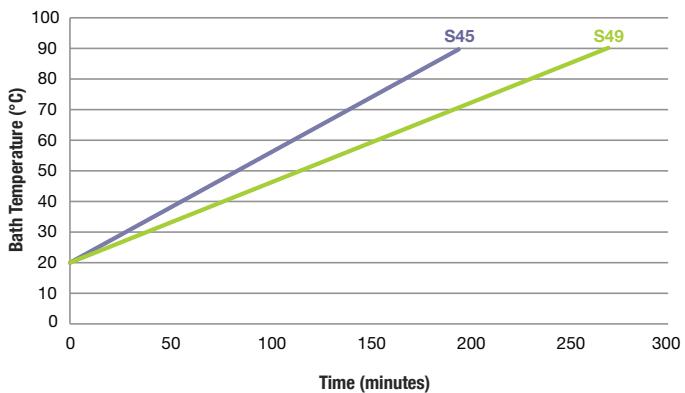
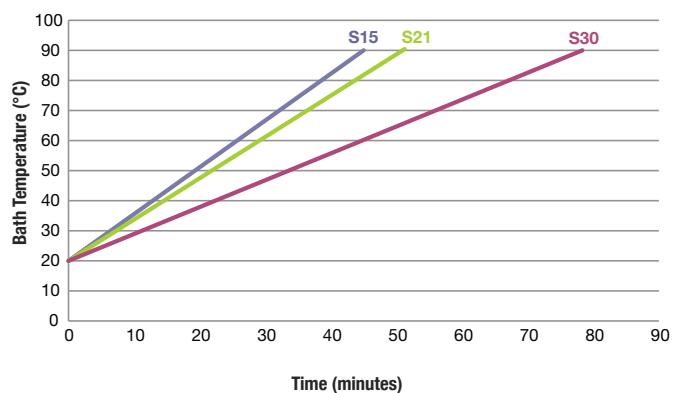
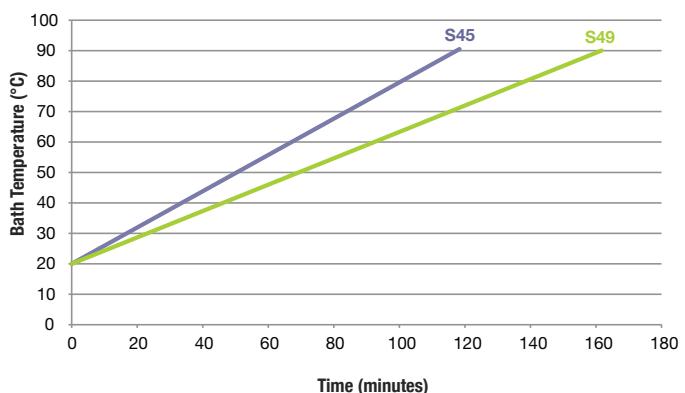
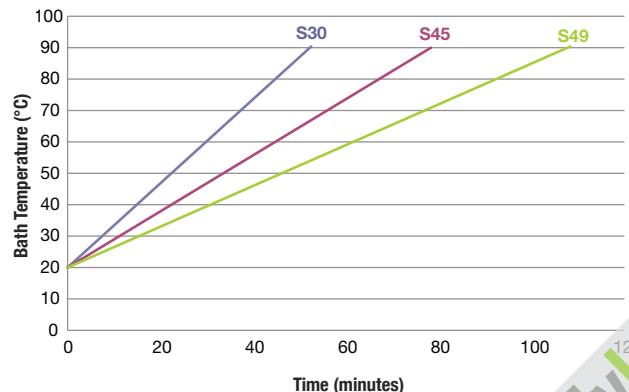
➤ Time to Temperature Heating



| Immersion Circulator | 100-115V 50-60Hz | 100V 50-60Hz | 115V 60Hz | 200-230V 50-60Hz | 230V-50Hz |
|--------------------------|---------------------|-----------------|-----------------|---------------------|--------------|
| SC100 SC150 SC150L | — | 0.9kW @ 100V | 1.2kW @ 115V | — | 2kW @230V |
| AC150 AC200 | — | 0.9kW @ 100V | 1.2kW @ 115V | 2kW @ 230V | 2kW @230V |
| PC200 | 1.2kW @ 115V | — | — | 2kW @ 230V | — |
| PC201 PC300 | — | — | — | 3kW @ 230V | — |



*See page 14/15 for available controller

S15, S21, S30 (115V - 1.2kW*)**S45, S49 (115V - 1.2kW*)****S15, S21, S30 (230V - 2kW*)****S45, S49 (230V - 2kW*)****S30, S45, S49 (230V - 3kW*)**

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. Pump specifications are nominal values of $\pm 10\%$. Specifications are for reference only and are subject to change. Heat-up rates for the 100V baths will take approximately 25% longer than the 115V.

Acrylic

Ambient +13°C to +80°C

Transparent Acrylic Baths

These baths are ideal when visibility of your application is required. Temperatures are maintained from ambient plus 13°C to a maximum of 80°C.

Useful accessories:

- Lifting Platform
- Tap Water Cooling Coil
- Test Tube Racks

See page 20 for complete list of available accessories.



| Controller ▼ | Bath ► | S6T | S12T | S19T | | | | | | |
|------------------------------|--------|-----------------------------------|--------------------------------------|-------------------------------------|-----------|-----------|--------------|-----------|-----------|--------------|
| SC100 | | Amb +13 to 80°C | Amb +13 to 80°C | Amb +13 to 80°C | | | | | | |
| SC150 | | Amb +13 to 80°C | Amb +13 to 80°C | Amb +13 to 80°C | | | | | | |
| AC150 | | — | Amb +13 to 80°C | Amb +13 to 80°C | | | | | | |
| AC200 | | — | Amb +13 to 80°C | Amb +13 to 80°C | | | | | | |
| Bath volume (liters) | | 6 | 12 | 19 | | | | | | |
| Work area (DxWxL) mm/in | | 150 x 138 x 223 / 5.9 x 5.4 x 8.8 | 150 x 302 x 148.9 / 5.9 x 11.9 x 5.9 | 150 x 302 x 326.9 / 9 x 11.9 x 12.9 | | | | | | |
| Net weight (kg/lb) | | 6.3 / 13.9 | 7.3 / 16.1 | 8.7 / 19.1 | | | | | | |
| Compliance | | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE | | | | | | |
| Ordering information: | | | | | | | | | | |
| Model | | S6T | S12T | S19T | | | | | | |
| Voltages | | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz |
| SC100 plus Bath | | 152-2068 | 152-2061 | 152-2066 | 152-2128 | 152-2121 | 152-2126 | 152-2198 | 152-2191 | 152-2196 |
| SC150 plus Bath | | 153-2068 | 153-2061 | 153-2066 | 153-2128 | 153-2121 | 153-2126 | 153-2198 | 153-2191 | 153-2196 |
| AC150 plus Bath | | — | — | — | 155-2128 | 155-2121 | 155-2126 | 155-2198 | 155-2191 | 155-2196 |
| AC200 plus Bath | | — | — | — | 156-2128 | 156-2121 | 156-2126 | 156-2198 | 156-2191 | 156-2196 |

PPO

Ambient +13°C to +100°C

Polyphenylene Oxide (PPO)

An economical alternative to stainless steel, these polyphenylene oxide baths are thermally resistant up to 100°C and deliver exceptional temperature performance with operational savings. Temperatures are maintained from ambient plus 13°C to 100°C.

See page 20 for complete list of available accessories.

Overall dimensions can be found on page 24-25.

Useful accessories:

- Tap Water Cooling Coil
- Solenoid Valve for Tap Water Cooling Coil (AC200 controller and above)
- Auto-refill (AC200 controller and above)
- External Temperature Probe (AC150 controller and above)
- Work Area Cover
- Lifting Platform
- Test Tube Racks



| Controller ▼ | Bath ► | S5P | S14P | S21P |
|-------------------------|-----------------------------------|------------------------------------|-------------------------------------|------------------|
| SC100 | | Amb +13 to 100°C | Amb +13 to 100°C | Amb +13 to 100°C |
| SC150 | | Amb +13 to 100°C | Amb +13 to 100°C | Amb +13 to 100°C |
| AC150 | | — | Amb +13 to 100°C | Amb +13 to 100°C |
| AC200 | | — | Amb +13 to 100°C | Amb +13 to 100°C |
| Bath volume (liters)* | | 5 | 14 | 21 |
| Work area (DxWxL) mm/in | 160 x 132 x 132 / 6.3 x 5.2 x 5.2 | 160 x 300 x 163 / 6.3 x 11.8 x 6.4 | 160 x 300 x 353 / 6.3 x 11.8 x 13.9 | |
| Net weight (kg/lb) | 5.1 / 11.2 | 6.3 / 13.9 | 6.6 / 14.5 | |
| Compliance | CE/ROHS/WEEE | CE/ROHS/WEEE | CE/ROHS/WEEE | |

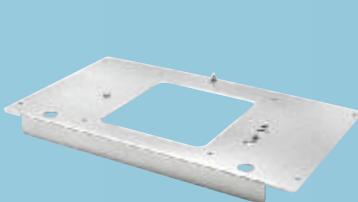
Ordering information:

| Model | S5P | | | S14P | | | S21P | | |
|------------------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|
| Voltages | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz | 115V/60Hz | 230V/50Hz | 100V/50-60Hz |
| SC100 plus Bath | 152-3058 | 152-3051 | 152-3056 | 152-3148 | 152-3141 | 152-3146 | 152-3218 | 152-3211 | 152-3216 |
| SC150 plus Bath | 153-3058 | 153-3051 | 153-3056 | 153-3148 | 153-3141 | 153-3146 | 153-3218 | 153-3211 | 153-3216 |
| AC150 plus Bath | — | — | — | 155-3148 | 155-3141 | 155-3146 | 155-3218 | 155-3211 | 155-3216 |
| AC200 plus Bath | — | — | — | 156-3148 | 156-3141 | 156-3146 | 156-3218 | 156-3211 | 156-3216 |

Accessories



Stainless steel rack



Bath bridge

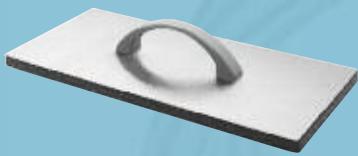
| Part # | Racks and inserts |
|----------|--|
| 160-0002 | Stainless steel rack for bath types A5B, A10B, A24B, S49, S19T, S14P, S21P. Choose a rack insert below: |
| 160-0003 | • Rack insert - includes top and bottom panels that will hold up to 100 test tubes that are 10 mm Ø |
| 160-0004 | • Rack insert - includes top and bottom panels that will hold up to 60 test tubes that are 16 mm Ø |
| 160-0005 | • Rack insert - includes top and bottom panel that will hold up to 25 test tubes that are 10mm Ø |
| 160-0006 | • Rack insert - includes top and bottom panel with no holes |
| 160-0079 | Stainless steel rack for bath types A25B, A40, S21, S30. Choose a rack insert below: |
| 160-0080 | • Rack insert - includes top and bottom panels that will hold up to 55 test tubes that are 10 mm Ø |
| 160-0081 | • Rack insert - includes top and bottom panel that will hold up to 32 test tubes that are 16mm Ø |
| 160-0082 | • Rack insert - includes top and bottom panel that will hold up to 13 test tubes that are 25mm Ø |
| 160-0083 | • Rack insert - includes top and bottom panel with no holes |
| 160-0026 | Universal stainless steel rack for bath types S13, S12T, S15. Choose a rack insert below: |
| 160-0084 | • Rack insert - includes top and bottom panels that will hold up to 39 test tubes that are 10 mm Ø |
| 160-0085 | • Rack insert - includes top and bottom panel that will hold up to 20 test tubes that are 16mm Ø |
| 160-0086 | • Rack insert - includes top and bottom panel that will hold up to 8 test tubes that are 25mm Ø |
| 160-0087 | • Rack insert - includes top and bottom panel with no holes |
| 160-0066 | Rack insert for GLACIER G50 ultra low refrigerated bath. Holds up to 26 test tubes that at 4.2mm Ø |
| 160-0067 | Rack insert for GLACIER G50 ultra low refrigerated bath. Holds up to 30 test tubes that at 2mm Ø |
| Part # | Bridges |
| 160-0007 | Extension bridge for liftplate in S15, S21, S30, S45 baths |
| 160-0077 | Extension bridge for immersion cooler. Fits S15, S21, S30 heated baths |
| 160-0078 | Steel bridge to hold SC controller in W13, W15, W26, W45, W46 baths |
| 160-0009 | Extension bridge for liftplate in the S49 bath |
| 160-0036 | Extension bridge for liftplate in the A5B and A10B baths |
| 160-0018 | Adjustable bridge - 400 and 800 mm, for SC, AC & PC bridge circulators |
| 160-0098 | Extension bridge for S14P & S21P bath for liftplate 333-0583 & 333-0582 |
| Part # | Lifting Platforms |
| 160-0011 | Lifting platform, stainless steel for S21, S30, S45 |
| 160-0012 | Lifting platform, stainless steel for S15 |
| 160-0013 | Lifting platform stainless steel for S49 |
| 160-0121 | Lifting Platform, stainness steel for A5B |
| 160-0142 | Lifting Platform, stainless steel for A10B |



| | |
|---------------|--|
| Part # | Lifting Platforms |
| 160-0011 | Lifting platform, stainless steel for S21, S30, S45 |
| 160-0012 | Lifting platform, stainless steel for S15 |
| 160-0013 | Lifting platform stainless steel for S49 |
| 160-0121 | Lifting platform, stainless steel for A5B |
| 160-0142 | Lifting platform, stainless steel for A10B |
| Part # | Tap Water Cooling Coils |
| 160-0014 | Tap water cooling coil for SC100, SC150, AC150, PC200, PC201, or PC300 with S13, S15, S21, S30, S45, S49, S14P, S21P, S12T, S19T |
| 160-0015 | Tap water cooling coil for SC 100 or SC150 immersion circulator with a clamp |
| 160-0016 | Tap water cooling coil for SC150L controller with S13, S15, S30, S45, S49 |
| 160-0017 | Tap water cooling coil for SC150L immersion circulator with a clamp |
| 160-0090 | Tap water cooling coil for SC100 or SC150 controller with S5P |
| 160-0091 | Tap water cooling coil for SC100 or SC150 controller with S6T |
| 160-0092 | Tap water cooling coil for SC100 or SC150 controller with S3 or S7 |
| 160-0093 | Tap water cooling coil for SC150L controller with S7 |
| 160-0094 | Tap water cooling coil for AC150 or AC200 controller with S3 or S7 |
| Part # | Connectivity |
| 160-0027 | RS232 serial communication adapter |
| 160-0075 | RS485 serial communication adapter |
| 160-0076 | Communication extension board for Ethernet/LAN |
| 160-0033 | Interface cable USB 1.8m long |
| 160-0034 | Interface cable RS232 and RS485 5 feet long |
| 160-0035 | Interface cable LAN 5m long |
| 160-0149 | Analog I/O adapter |
| Part # | Work Area Covers |
| 160-0020 | Stainless steel work area cover for S5P |
| 160-0021 | Stainless steel work area cover for S14P |
| 160-0022 | Stainless steel work area cover for S21P |
| 160-0037 | Stainless steel work area cover for S15 |
| 160-0038 | Stainless steel work area cover for S21, S30, S45 |
| 160-0040 | Stainless steel work area cover for S49 |
| 160-0041 | Stainless steel work area cover for A5B |
| 160-0042 | Stainless steel work area cover for A10B |
| 160-0100 | Work area cover with leveling device for A10 |
| 160-0101 | Work area cover with leveling device for A28/A28F |
| 160-0102 | Work area cover with leveling device for S3/S7 |
| 160-0103 | Work area cover with leveling device for S13 |



Tap water cooling coil



Work area cover

Accessories

| Part # | Tubing and Accessories |
|--------------|--|
| 160-0028 | Adapter M16x1 female/1/4"NPTF male |
| 160-0029 | Adapter M16x1 male/1/4"NPTF male |
| 160-0146 | Plumbing Package – includes (4) clamps and (2) 5' Viton tubing (insulated), temperature range of -30°C to +200°C, 12mm ø |
| 160-0147 | Plumbing Package – includes (4) clamps and (2) 5' Viton tubing (uninsulated), temperature range of -30°C to +200°C, 12mm ø |
| Part # | Temperature Sensors |
| 333-0818 | BT Pt100 sensor, teflon coated, flexible, 300 mm long, Ø 3 mm, cable length 3 m |
| 333-0429 | Pt 100 sensor, 18/8 stainless steel tubing, 150mm long, 3mm Ø, 3m cable, up to 600°C |
| Part # | Heat Transfer Fluids |
| 999-0201 | Sil 100 Silicone oil bath liquid, temperature range -75 to 75°C , 5L |
| 999-0202 | Sil 100 Silicone oil bath liquid, temperature range -75 to 75°C , 10L |
| 999-0203 | Sil 180 Silicone oil bath liquid, temperature range -40 to 200°C, 5L |
| 999-0204 | Sil 180 Silicone oil bath liquid, temperature range -40 to 200°C, 10L |
| 999-0205 | Sil 300 Silicone oil bath liquid, temperature range +80 to 300°C, 5L |
| 999-0206 | Sil 300 Silicone oil bath liquid, temperature range +80 to 300°C, 10L |
| 999-0213 | Synth 260 bath liquid, temperature range +40 to 250°C, 5L |
| 999-0214 | Synth 260 bath liquid, temperature range +40 to 250°C, 10L |
| 999-0225 | Synth 200 bath liquid, temperature range +20 to +210°C, 5L |
| 999-0226 | Synth 200 Bath liquid, temperature range +20 to +210°C, 10L |
| 128-0019 | Ethylglycol, 5 gallons (approx. 19 liters) for low temperature applications to -30°C |
| Part # | Software |
| 422000000004 | NEScom 4.0 software package |
| Part # | Miscellaneous Accessories |
| 160-0070 | Trolley w/castors for A40 |
| 160-0071 | Trolley w/castors for A28/A25 |
| 160-0088 | Cage for SC100/SC150 immersion circulator |
| 160-0089 | Cage for SC150L immersion circulator |
| 160-0045 | Fluid displacement box for A10 bath |
| 160-0105 | Fluid displacement box for A25/A40 bath |
| 160-0106 | Fluid displacement box for A28 bath |
| 160-1000 | Solenoid valve (100-230V/50-60Hz) for tap water cooling coil (AC200 and up) |
| 160-3000 | Autorefill (100-230V/50-60Hz) (AC200 and up) |

Service and Support

Have a question or concern, contact our Temperature Control Experts!



Support and Maintenance

Technical Questions

Our technical service team is ready to answer any of your questions on your existing systems.

Customer Service

Let our professional and experienced customer service representatives guide you when choosing your temperature control needs. They will evaluate your needs, develop a system recommendation, and coordinate your order and shipment.

New Lab Construction

We offer the most comprehensive line of temperature control products in the world. We can configure the temperature control system that is a perfect fit for your new lab's needs.

Service and Support

Maintaining your temperature control system is crucial to the overall productivity of your laboratory, the long-term performance of the system and the total cost of ownership. We offer a variety of services to suit your individual needs. Professional service delivers improved productivity, convenience, peace-of-mind, and budget control.

Installation

Factory-trained technicians can install your system to ensure it operates with precision. With our services you will receive:

- Installation scheduled at your convenience
- Assurance that all technical specifications are met
- Practical hands-on instructions

Onsite and Depot Repair

Should an unexpected repair event occur, you will be covered with our on-site and depot repair services. Certified and experienced technicians conduct rapid failure detection and analysis. Prior to return, performance tests are conducted to insure factory specifications are met.

Extended Warranty and Repair Services

Control your cost of ownership by securing an extended warranty or repair service plan. Continue to receive the same benefits as the original warranty, giving you piece of mind.

Controller Swap Program: in the event that the controller fails, it can be exchanged for a new controller –at no cost to you – for the life of the warranty.

Preventative Maintenance/Calibration

Extend the functional integrity of your system via a scheduled preventative maintenance and calibration service. Regularly scheduled preventative maintenance can help prevent premature failure of critical components like pumps, compressors and fan motors.

Please ask your local sales representative for additional information about service offerings in your area.

Dimensions

Thermo Scientific SAHARA Acrylic Heated Baths

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|-------------|-------------------------|--------------------|
| SC100-S 6T | 352.7 x 188.8 x 407 | 13.9 x 5.9 x 16 |
| SC150-S 6T | 352.7 x 188.8 x 407 | 13.9 x 5.9 x 16 |
| SC100-S 12T | 354.7 x 356.1 x 348 | 14 x 14 x 13.7 |
| SC150-S 12T | 354.7 x 356.1 x 348 | 14 x 14 x 13.7 |
| AC150-S 12T | 392.7 x 356.1 x 348 | 15.5 x 14 x 13.7 |
| AC200-S 12T | 392.7 x 356.1 x 348 | 15.5 x 14 x 13.7 |
| SC100-S 19T | 354.7 x 356.1 x 526 | 14 x 14 x 20.7 |
| SC150-S 19T | 354.7 x 356.1 x 526 | 14 x 14 x 20.7 |
| AC150-S 19T | 392.7 x 356.1 x 526 | 15.5 x 14 x 20.7 |
| AC200-S 19T | 392.7 x 356.1 x 526 | 15.5 x 14 x 20.7 |

Thermo Scientific SAHARA PPO Heated Baths

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|-------------|-------------------------|--------------------|
| SC100-S 5P | 359.5 x 190 x 388 | 14.2 x 7.5 x 15.3 |
| SC150-S 5P | 359.5 x 190 x 388 | 14.2 x 7.5 x 15.3 |
| SC100-S 14P | 360.5 x 358 x 452 | 14.2 x 14.1 x 17.8 |
| SC150-S 14P | 360.5 x 358 x 452 | 14.2 x 14.1 x 17.8 |
| AC150-S 14P | 398.5 x 358 x 452 | 15.7 x 14.1 x 17.8 |
| AC200-S 14P | 398.5 x 358 x 452 | 15.7 x 14.1 x 17.8 |
| SC100-S 21P | 360.5 x 358 x 642 | 14.2 x 14.1 x 25.3 |
| SC150-S 21P | 360.5 x 358 x 642 | 14.2 x 14.1 x 25.3 |
| AC150-S 21P | 398.5 x 358 x 642 | 15.7 x 14.1 x 25.3 |
| AC200-S 21P | 398.5 x 358 x 642 | 15.7 x 14.1 x 25.3 |

Thermo Scientific SAHARA Stainless Steel Heated Baths

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|-------------|-------------------------|--------------------|
| SC100-S 3 | 406.2 x 234.8 x 428.4 | 16 x 9.2 x 16.7 |
| SC150-S 3 | 406.2 x 234.8 x 428.4 | 16 x 9.2 x 16.7 |
| AC150-S 3 | 444.2 x 234.8 x 428.4 | 17.5 x 9.2 x 16.7 |
| AC200-S 3 | 444.2 x 234.8 x 428.4 | 17.5 x 9.2 x 16.7 |
| SC100-S 7 | 456.2 x 234.8 x 428.4 | 18 x 9.2 x 16.7 |
| SC150-S 7 | 456.2 x 234.8 x 428.4 | 18 x 9.2 x 16.7 |
| AC150-S 7 | 494.2 x 234.8 x 428.4 | 19.5 x 9.2 x 16.7 |
| AC200-S 7 | 494.2 x 234.8 x 428.4 | 19.5 x 9.2 x 16.7 |
| PC200-S 7 | 494.2 x 234.8 x 428.4 | 19.5 x 9.2 x 16.7 |
| PC201-S 7 | 494.2 x 234.8 x 428.4 | 19.5 x 9.2 x 16.7 |
| PC300-S 7 | 494.2 x 234.8 x 428.4 | 19.5 x 9.2 x 16.7 |
| SC100-S 13 | 456.2 x 320.8 x 428.4 | 18 x 12.6 x 16.7 |
| SC150-S 13 | 456.2 x 320.8 x 428.4 | 18 x 12.6 x 16.7 |
| AC150-S 13 | 494.2 x 320.8 x 428.4 | 19.5 x 12.6 x 16.7 |
| AC200-S 13 | 494.2 x 320.8 x 428.4 | 19.5 x 12.6 x 16.7 |
| PC200-S 13 | 494.2 x 320.8 x 428.4 | 19.5 x 12.6 x 16.7 |
| PC201-S 13 | 494.2 x 320.8 x 428.4 | 19.5 x 12.6 x 16.7 |
| PC300-S 13 | 494.2 x 320.8 x 428.4 | 19.5 x 12.6 x 16.7 |
| SC100-S 15 | 456.2 x 380.8 x 457.4 | 18 x 15 x 18 |
| SC150-S 15 | 456.2 x 380.8 x 457.4 | 18 x 15 x 18 |
| SC150L-S 15 | 456.2 x 380.8 x 457.4 | 18 x 15 x 18 |
| AC150-S 15 | 494.2 x 380.8 x 457.4 | 19.5 x 15 x 18 |
| AC200-S 15 | 494.2 x 380.8 x 457.4 | 19.5 x 15 x 18 |
| PC200-S 15 | 494.2 x 380.8 x 457.4 | 19.5 x 15 x 18 |
| PC201-S 15 | 494.2 x 380.8 x 457.4 | 19.5 x 15 x 18 |
| SC150-S 21 | 408.5 x 380.8 x 628.4 | 16.1 x 15 x 24.7 |
| SC150-S 21 | 408.5 x 380.8 x 628.4 | 16.1 x 15 x 24.7 |
| AC150-S 21 | 446.5 x 380.8 x 628.4 | 17.6 x 15 x 24.7 |
| AC200-S 21 | 446.5 x 380.8 x 628.4 | 17.6 x 15 x 24.7 |

Thermo Scientific SAHARA Stainless Steel Heated Baths

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|-------------|-------------------------|--------------------|
| SC100-S 30 | 456.2 x 380.8 x 628.4 | 18 x 15 x 24.7 |
| SC150-S 30 | 456.2 x 380.8 x 628.4 | 18 x 15 x 24.7 |
| SC150L-S 30 | 456.2 x 380.8 x 628.4 | 18 x 15 x 24.7 |
| AC150-S 30 | 494.2 x 380.8 x 628.4 | 19.5 x 15 x 24.7 |
| AC200-S 30 | 494.2 x 380.8 x 628.4 | 19.5 x 15 x 24.7 |
| PC200-S 30 | 494.2 x 380.8 x 628.4 | 19.5 x 15 x 24.7 |
| PC201-S 30 | 494.2 x 380.8 x 628.4 | 19.5 x 15 x 24.7 |
| SC100-S 45 | 556.2 x 380.8 x 628.4 | 21.9 x 15 x 24.7 |
| SC150-S 45 | 556.2 x 380.8 x 628.4 | 21.9 x 15 x 24.7 |
| SC150L-S 45 | 556.2 x 380.8 x 628.4 | 21.9 x 15 x 24.7 |
| AC150-S 45 | 594.2 x 380.8 x 628.4 | 23.4 x 15 x 24.7 |
| AC200-S 45 | 594.2 x 380.8 x 628.4 | 23.4 x 15 x 24.7 |
| PC200-S 45 | 594.2 x 380.8 x 628.4 | 23.4 x 15 x 24.7 |
| PC201-S 45 | 594.2 x 380.8 x 628.4 | 23.4 x 15 x 24.7 |
| SC100-S 49 | 456.2 x 578.8 x 746.4 | 18 x 22.8 x 29.4 |
| SC150-S 49 | 456.2 x 578.8 x 746.4 | 18 x 22.8 x 29.4 |
| SC150L-S 49 | 456.2 x 578.8 x 746.4 | 18 x 22.8 x 29.4 |
| AC150-S 49 | 494.2 x 578.8 x 746.4 | 19.5 x 22.8 x 29.4 |
| AC200-S 49 | 494.2 x 578.8 x 746.4 | 19.5 x 22.8 x 29.4 |
| PC200-S 49 | 494.2 x 578.8 x 746.4 | 19.5 x 22.8 x 29.4 |
| PC201-S 49 | 494.2 x 578.8 x 746.4 | 19.5 x 22.8 x 29.4 |

Thermo Scientific ARCTIC Refrigerated Baths

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|--------------|-------------------------|--------------------|
| SC100-A 5B | 470.7 x 428.5 x 738 | 18.5 x 16.9 x 29.1 |
| SC150-A 5B | 470.7 x 428.5 x 738 | 18.5 x 16.9 x 29.1 |
| AC150-A 5B | 508.7 x 428.5 x 738 | 20 x 16.9 x 29.1 |
| AC200-A 5B | 508.7 x 428.5 x 738 | 20 x 16.9 x 29.1 |
| | | |
| SC100-A 10B | 470.7 x 428.5 x 913 | 18.5 x 16.9 x 35.9 |
| SC150-A 10B | 470.7 x 428.5 x 913 | 18.5 x 16.9 x 35.9 |
| AC150-A 10B | 508.7 x 428.5 x 913 | 20 x 16.9 x 35.9 |
| AC200-A 10B | 508.7 x 428.5 x 913 | 20 x 16.9 x 35.9 |
| | | |
| SC100-A 24B | 573.7 x 765 x 610 | 22.6 x 30.1 x 24 |
| SC150-A 24B | 573.7 x 765 x 610 | 22.6 x 30.1 x 24 |
| SC150L-A 24B | 573.7 x 765 x 610 | 22.6 x 30.1 x 24 |
| AC150-A 24B | 611.7 x 765 x 610 | 24.1 x 30.1 x 24 |
| AC200-A 24B | 611.7 x 765 x 610 | 24.1 x 30.1 x 24 |
| PC200-A 24B | 611.7 x 765 x 610 | 24.1 x 30.1 x 24 |
| | | |
| SC100-A 25B | 739.7 x 324 x 541 | 29.1 x 12.8 x 21.3 |
| SC150-A 25B | 739.7 x 324 x 541 | 29.1 x 12.8 x 21.3 |
| AC150-A 25B | 777.7 x 324 x 541 | 30.6 x 12.8 x 21.3 |
| AC200-A 25B | 777.7 x 324 x 541 | 30.6 x 12.8 x 21.3 |

Thermo Scientific ARCTIC Refrigerated Circulators

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|--------------|-------------------------|--------------------|
| SC100-A 10 | 631.7 x 220 x 414 | 24.9 x 8.7 x 16.3 |
| SC150-A 10 | 631.7 x 220 x 414 | 24.9 x 8.7 x 16.3 |
| AC150-A 10 | 669.7 x 220 x 414 | 26.4 x 8.7 x 16.3 |
| AC200-A 10 | 669.7 x 220 x 414 | 26.4 x 8.7 x 16.3 |
| | | |
| SC100-A 25 | 710.7 x 273 x 483 | 28 x 10.7 x 19 |
| SC150-A 25 | 710.7 x 273 x 483 | 28 x 10.7 x 19 |
| SC150L-A 25 | 710.7 x 273 x 483 | 28 x 10.7 x 19 |
| AC150-A 25 | 748.7 x 273 x 483 | 29.5 x 10.7 x 19 |
| AC200-A 25 | 748.7 x 273 x 483 | 29.5 x 10.7 x 19 |
| PC200-A 25 | 748.7 x 273 x 483 | 29.5 x 10.7 x 19 |
| | | |
| SC100-A 28 | 710.7 x 273 x 483 | 28 x 10.7 x 19 |
| SC150-A 28 | 710.7 x 273 x 483 | 28 x 10.7 x 19 |
| SC150L-A 28 | 710.7 x 273 x 483 | 28 x 10.7 x 19 |
| AC150-A 28 | 748.7 x 273 x 483 | 29.5 x 10.7 x 19 |
| AC200-A 28 | 748.7 x 273 x 483 | 29.5 x 10.7 x 19 |
| PC200-A 28 | 748.7 x 273 x 483 | 29.5 x 10.7 x 19 |
| | | |
| SC100-A 28F | 519.7 x 514 x 426 | 20.5 x 20.2 x 16.8 |
| SC150-A 28F | 519.7 x 514 x 426 | 20.5 x 20.2 x 16.8 |
| SC150L-A 28F | 519.7 x 514 x 426 | 20.5 x 20.2 x 16.8 |
| AC150-A 28F | 557.7 x 514 x 426 | 22 x 20.2 x 16.8 |
| AC200-A 28F | 557.7 x 514 x 426 | 22 x 20.2 x 16.8 |
| PC200-A 28F | 557.7 x 514 x 426 | 22 x 20.2 x 16.8 |
| | | |
| SC150-A 40 | 748.7 x 385 x 519 | 29.5 x 15.2 x 20.4 |
| SC150L-A 40 | 748.7 x 385 x 519 | 29.5 x 15.2 x 20.4 |
| AC150-A 40 | 786.7 x 385 x 519 | 31 x 15.2 x 20.4 |
| AC200-A 40 | 786.7 x 385 x 519 | 31 x 15.2 x 20.4 |
| PC200-A 40 | 786.7 x 385 x 519 | 31 x 15.2 x 20.4 |

Thermo Scientific GLACIER Ultra Low Temperature Refrigerated Circulators

| Model | Millimeters (H x W x L) | Inches (H x W x L) |
|------------|-------------------------|--------------------|
| AC200-G 50 | 851.1 x 418.8 x 554 | 33.5 x 16.5 x 21.8 |
| PC200-G 50 | 851.1 x 418.8 x 554 | 33.5 x 16.5 x 21.8 |





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