Heated Circulating Baths

Heated Circulating Baths, Open Tank Systems, and Immersion Circulators. If it needs heat, it needs PolyScience.

Features:

- Working temperatures from ambient +10°C to +200°C
- Temperature stabilities to ±0.005°C
- Capacities from 6 to 28 liters
- Six controller types with large, intuitive displays and multiple communication options
- Large bath openings and easy to clean surfaces
- Swivel 180™ Rotating Controllers
- LidDock™ lid stowing system
- DuraTop™ chemical resistant deck

PolyScience offers almost 50 different solutions for your laboratory's liquid-heating needs – from a simple immersion circulator to economical open bath systems to full-featured circulating baths with ramp and soak capability. Typical applications include warming reagents and culture media, thawing or tempering samples, biological incubation, cell culture, enzyme assays, or controlling the temperature of laboratory equipment such as chromatography columns, viscometers, and densitometers.

PolyScience Heated Circulators come with the following accessories:

- Reservoir cover
- Bypass tubing
- Male inlet and outlet adapters for 3/8, 1/4, and 3/16" (.95, .63, and .47 cm) tubing. 1/4" NPT to M16 adapters also included on 50 Hz units.

Also included is a 6' (1.83 m) standard grounded electrical cord with country-specific plug.

Intertek

Features:

- Intuitive
  Whether equipped with the entry-level MX Controller or the most sophisticated Performance Programmable, our Heated Circulating Baths are extremely easy to use. Crisp menu architecture, screen icons, and plain-text prompts make it easy to navigate through operational settings and options.

- Convenient
  LidDock™ helps keep moisture where it belongs – in the bath. And accessing the reservoir drain is as simple as removing the Circulator's front panel.

- Safe
  All models feature user-settable high-temperature safeties as well as redundant over-temperature protection and comply with RoHS, WEEE, IEC 61010-1, IEC 61010-2-010, IEC 61326-1, DIN 12876 and are CE and ETL certified. Our DuraTop™ surface is cooler to the touch when operating at high temperatures.

- Precise
  Exceptionally exacting temperature control, combined with a tap-water cooling-coil, allow you to maintain bath temperatures at or near ambient with stabilities as precise as ±0.005°C.

- Versatile
  A variety of communication and control options, including Ethernet, USB data logging and computer control, bi-directional serial communication, and external circulation with remote temperature control, enhance functionality and applications flexibility.

Heated Circulating Baths Selection Guide

		Fully Integrated Heated Circulating Baths				Open Bath Systems	
	Capacity	7 Liter	15 Liter	20 Liter	28 Liter	6 Liter	10 Liter
	Maximum Temperature[1]	200°C	200°C	200°C	200°C	150°C	150°C
	Minimum Temperature[2]	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C
	Working Access (L x W x D)	6.18 x 5.59 x 5" 15.7 x 14.2 x 12.7 cm	8.35 x 10.88 x 5.5" 21.2 x 27.6 x 14 cm	9.85 x 12.45 x 5.5" 25 x 31.6 x 14 cm	12.35 x 14.13 x 5.5" 31.4 x 35.9 x 14 cm	3.9 x 4.3 x 6" 10 x 11 x 15.2 cm	3.9 x 10.1 x 6" 9.9 x 25.5 x 15.2 cm
	Tank Material	Insulated Stainless Steel	Insulated Stainless Steel	Insulated Stainless Steel	Insulated Stainless Steel	Stainless Steel	Stainless Steel
	Drain	•	•	•	•		
	Tap Water Cooling-Coil	•	•	•	•		
	LidDock™	•	•	•	•		
Catalog Number	Performance Programmable 120 VAC/60 Hz 240 VAC/50 Hz	PP07H200-A11B PP07H200-A12E	PP15H200-A11B PP15H200-A12E	PP20H200-A11B PP20H200-A12E	PP28H200-A11B PP28H200-A12E		
	Advanced Programmable 120 VAC/60 Hz 240 VAC/50 Hz	AP07H200-A11B AP07H200-A12E	AP15H200-A11B AP15H200-A12E	AP20H200-A11B AP20H200-A12E	AP28H200-A11B AP28H200-A12E	AP06S150-A11B AP06S150-A12E	AP10S150-A11B AP10S150-A12E
	Performance Digital 120 VAC/60 Hz 240 VAC/50 Hz	PD07H200-A11B PD07H200-A12E	PD15H200-A11B PD15H200-A12E	PD20H200-A11B PD20H200-A12E	PD28H200-A11B PD28H200-A12E		
	Advanced Digital 120 VAC/60 Hz 240 VAC/50 Hz	AD07H200-A11B AD07H200-A12E	AD15H200-A11B AD15H200-A12E	AD20H200-A11B AD20H200-A12E	AD28H200-A11B AD28H200-A12E	AD06S150-A11B AD06S150-A12E	AD10S150-A11B AD10S150-A12E
	Standard Digital 120 VAC/60 Hz 240 VAC/50 Hz	SD07H170-A11B SD07H170-A12E	SD15H170-A11B SD15H170-A12E	SD20H170-A11B SD20H170-A12E	SD28H170-A11B SD28H170-A12E		
	MX 120 VAC/60 Hz 240 VAC/50 Hz	MX07H135-A11B MX07H135-A12E	MX15H135-A11B MX15H135-A12E	MX20H135-A11B MX20H135-A12E		MX06S135-A11B MX06S135-A12E	MX10S135-A11B MX10S135-A12E

1. Maximum temperature is controller dependent for integrated systems (see Controller Selection Guide, pages 28 and 29); maximum temperature is dependent on tank material for Open Bath Systems with stainless steel or polycarbonate tanks. Immersion Circulator's maximum temperature is dependent on fluid volume.
2. Minimum temperature is shown with no external heat load.

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.

	Open Bath Systems								Immersion Circulator
	20 Liter	28 Liter	8 Liter	11 Liter	14 Liter	17 Liter	23 Liter	28 Liter	Up to 28 Liters
	150°C	150°C	85°C	85°C	85°C	85°C	85°C	85°C	135°C
	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C
	10.4 x 9 x 6" 26.4 x 22.8 x 15.2 cm	10.1 x 8.4 x 8" 25.7 x 21.4 x 20.3 cm	4.1 x 6.1 x 8" 10.5 x 15.6 x 20.3 cm	8.3 x 6.1 x 8" 21 x 15.6 x 20.3 cm	12.4 x 6.1 x 8" 31.4 x 15.6 x 20.3 cm	4.1 x 12 x 8" 10.5 x 30.5 x 20.3 cm	8.3 x 12 x 8" 21 x 30.5 x 20.3 cm	12.4 x 12 x 8" 31.5 x 30.5 x 20.3 cm	N/A
	Stainless Steel	Stainless Steel	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	N/A
						•	•	•	
	AP20S150-A11B AP20S150-A12E	AP28S150-A11B AP28S150-A12E	AP08P100-A11B AP08P100-A12E	AP11P100-A11B AP11P100-A12E	AP14P100-A11B AP14P100-A12E	AP17P100-A11B AP17P100-A12E	AP23P100-A11B AP23P100-A12E	AP28P100-A11B AP28P100-A12E	
	AD20S150-A11B AD20S150-A12E	AD28S150-A11B AD28S150-A12E							
	MX20S135-A11B MX20S135-A12E	MX28S135-A11B MX28S135-A12E	MX08P100-A11B MX08P100-A12E	MX11P100-A11B MX11P100-A12E	MX14P100-A11B MX14P100-A12E	MX17P100-A11B MX17P100-A12E	MX23P100-A11B MX23P100-A12E	MX28P100-A11B MX28P100-A12E	MX-CA11B MX-CA12E

Performance Programmable Temperature Controller

Key Specifications

Working Temperature:	Up to 200°C
Temperature Stability:	±0.005°C

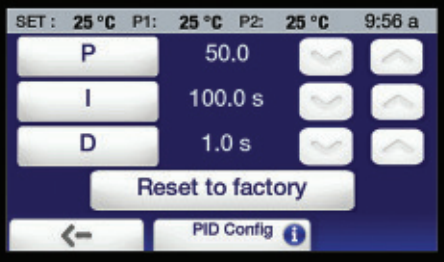
Maximum Pressure:	psi (bar)
120 VAC/60 Hz Models	4.3 (0.3)
240 VAC/50 Hz Models	3.6 (0.25)

Maximum Flow Rate:	Pressure	Suction
	gpm (l/min)	gpm (l/min)
120 VAC/60 Hz Models	5.3 (20.1)	3.9 (14.7)
240 VAC/50 Hz Models	4.4 (16.7)	3.2 (12.2)

Features:

- OpenMode time/temperature programming (no restriction on number of programs or steps)
- Intuitive 4.3" (10.9 cm) SmartTouch display
- 11 languages: French, German, Spanish, Chinese, Portuguese, Russian, Hindi, Arabic, Italian, Korean, English
- Variable-speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180™, LidDock™, DuraTop™
- On-board connectivity: USB-A & B, Ethernet, RS232/485, remote on/off and external temperature probe
- Event scheduling (time & date) with real-time clock and temperature trends for up to 10 days
- Multiple, selectable "home" screens and on-screen help
- Automatic and/or user-adjustable performance optimization and 10-point calibration capability
- Complies with DIN 12876-1 Class III safety requirements for use with flammable liquids
- Available with DeviceNet™/CANbus, Modbus®, and Profibus® options
- Includes Enhanced Performance Hardware & Software Package

Powerful time/temperature programming function simplifies the creation of ramp and soak profiles or special test protocols. Programs can even be scheduled to run automatically at a predetermined time and date.



The Performance Programmable Controller's performance is easily fine-tuned by selecting a specific heat transfer fluid, entering a fluid's specific heat capacity value, or even adjusting PID settings.

For additional information on the Performance Programmable Controller's features and capabilities, see pages 16 and 17.

7-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
6.18 x 5.59 x 5"
15.7 x 14.2 x 12.7 cm

Overall Dimensions (L x W x H):
19.6 x 8.7 x 16.1"
49.9 x 22.1 x 40.9 cm

15-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
8.35 x 10.88 x 5.5"
21.2 x 27.6 x 14 cm

Overall Dimensions (L x W x H):
22.4 x 14.5 x 16.6"
56.9 x 36.8 x 42.2 cm

20-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
9.85 x 12.45 x 5.5"
25 x 31.6 x 14 cm

Overall Dimensions (L x W x H):
24 x 16.5 x 16.6"
61 x 41.9 x 42.2 cm

28-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
12.35 x 14.13 x 5.5"
31.4 x 35.9 x 14 cm

Overall Dimensions (L x W x H):
26.5 x 18 X 16.6"
67.2 x 45.7 x 42.2 cm

Reservoir Size	7 Liter	15 Liter	20 Liter	28 Liter
Temperature Range	Ambient +10° to +200°C			
Heater	1100 W (60 Hz)/2200 W (50 Hz)			
Part Number 120 VAC/60 Hz	PP07H200-A11B	PP15H200-A11B	PP20H200-A11B	PP28H200-A11B
Part Number 240 VAC/50 Hz	PP07H200-A12E	PP15H200-A12E	PP20H200-A12E	PP28H200-A12E

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.

Advanced Programmable Temperature Controller

Key Specifications

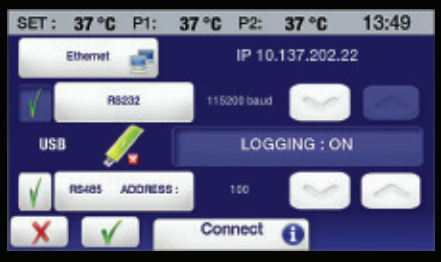
Working Temperature:	Up to 200°C
Temperature Stability:	±0.01°C

Maximum Pressure:	psi (bar)
120 VAC/60 Hz Models	4.3 (0.3)
240 VAC/50 Hz Models	3.6 (0.25)

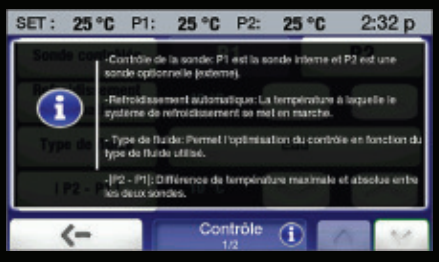
Maximum Flow Rate:	Pressure	Suction
	gpm (l/min)	gpm (l/min)
120 VAC/60 Hz Models	5.3 (20.1)	3.9 (14.7)
240 VAC/50 Hz Models	4.4 (16.7)	3.2 (12.2)

Features:

- Time/temperature programming (ten 100-step programs)
- Intuitive 4.3" (10.9 cm) SmartTouch display
- 6 languages: French, German, Spanish, Chinese, Arabic, English
- Variable-speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180™, LidDock™, DuraTop™
- On-board connectivity: USB-A & B, RS232/485, Ethernet and external temperature probe
- Event scheduling (time & date), real-time clock and temperature trends for up to 10 days
- Selectable "home" screens and on-screen help
- Automatic and/or user-adjustable performance optimization
- 5-point calibration capability
- Complies with DIN 12876-1 Class III safety requirements for use with flammable liquids



Multiple connectivity options give you a variety of ways to log data and control circulator operation.



All screens and menus, including on-line help, can be displayed in any of six different languages: English, French, German, Spanish, Chinese, or Arabic.

For additional information on the Advanced Programmable Controller's features and capabilities, see pages 18 and 19.

7-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
6.18 x 5.59 x 5"
15.7 x 14.2 x 12.7 cm

Overall Dimensions (L x W x H):
19.6 x 8.7 x 16.1"
49.9 x 22.1 x 40.9 cm

15-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
8.35 x 10.88 x 5.5"
21.2 x 27.6 x 14 cm

Overall Dimensions (L x W x H):
22.4 x 14.5 x 16.6"
56.9 x 36.8 x 42.2 cm

20-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
9.85 x 12.45 x 5.5"
25 x 31.6 x 14 cm

Overall Dimensions (L x W x H):
24 x 16.5 x 16.6"
61 x 41.9 x 42.2 cm

28-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
12.35 x 14.13 x 5.5"
31.4 x 35.9 x 14 cm

Overall Dimensions (L x W x H):
26.5 x 18 X 16.6"
67.2 x 45.7 x 42.2 cm

Reservoir Size	7 Liter	15 Liter	20 Liter	28 Liter
Temperature Range	Ambient +10° to +200°C			
Heater	1100 W (60 Hz)/2200 W (50 Hz)			
Part Number 120 VAC/60 Hz	AP07H200-A11B	AP15H200-A11B	AP20H200-A11B	AP28H200-A11B
Part Number 240 VAC/50 Hz	AP07H200-A12E	AP15H200-A12E	AP20H200-A12E	AP28H200-A12E

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.

Performance Digital Temperature Controller

Key Specifications

Working Temperature:	Up to 200°C
Temperature Stability:	±0.005°C

Maximum Pressure:	psi (bar)
120 VAC/60 Hz Models	4.3 (0.3)
240 VAC/50 Hz Models	3.6 (0.25)

Maximum Flow Rate:	Pressure	Suction
	gpm (l/min)	gpm (l/min)
120 VAC/60 Hz Models	5.3 (20.1)	3.9 (14.7)
240 VAC/50 Hz Models	4.4 (16.7)	3.2 (12.2)

Features:

- Intuitive 4.3" (10.9 cm) SmartTouch display
- 11 languages: French, German, Spanish, Chinese, Portuguese, Russian, Hindi, Arabic, Italian, Korean, English
- Variable-speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180™, LidDock™, DuraTop™
- On-board connectivity: USB-A & B, Ethernet, RS232/485, remote on/off and external temperature probe
- Event scheduling (time & date) with real-time clock and temperature trends for up to 10 days
- Multiple, selectable "home" screens and on-screen help
- Automatic and/or user-adjustable performance optimization and 10-point calibration capability
- Complies with DIN 12876-1 Class III safety requirements for use with flammable liquids
- Includes Enhanced Performance Hardware & Software Package
- Available with DeviceNet™/CANbus, Modbus®, and Profibus® options

External temperature probe control compensates for heat loss, keeping external devices at the precise temperature required.

Making a temperature set-point change is fast and easy – whether it's a half of degree or a hundred.

For additional information on the Performance Digital Controller's features and capabilities, see pages 20 and 21.

7-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
6.18 x 5.59 x 5"
15.7 x 14.2 x 12.7 cm

Overall Dimensions (L x W x H):
19.6 x 8.7 x 16.1"
49.9 x 22.1 x 40.9 cm

15-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
8.35 x 10.88 x 5.5"
21.2 x 27.6 x 14 cm

Overall Dimensions (L x W x H):
22.4 x 14.5 x 16.6"
56.9 x 36.8 x 42.2 cm

20-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
9.85 x 12.45 x 5.5"
25 x 31.6 x 14 cm

Overall Dimensions (L x W x H):
24 x 16.5 x 16.6"
61 x 41.9 x 42.2 cm

28-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
12.35 x 14.13 x 5.5"
31.4 x 35.9 x 14 cm

Overall Dimensions (L x W x H):
26.5 x 18 X 16.6"
67.2 x 45.7 x 42.2 cm

Reservoir Size	7 Liter	15 Liter	20 Liter	28 Liter
Temperature Range	Ambient +10° to +200°C			
Heater	1100 W (60 Hz)/2200 W (50 Hz)			
Part Number 120 VAC/60 Hz	PD07H200-A11B	PD15H200-A11B	PD20H200-A11B	PD28H200-A11B
Part Number 240 VAC/50 Hz	PD07H200-A12E	PD15H200-A12E	PD20H200-A12E	PD28H200-A12E

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.

Advanced Digital Temperature Controller

Key Specifications

Working Temperature:	Up to 200°C
Temperature Stability:	±0.01°C

Maximum Pressure:	psi (bar)
120 VAC/60 Hz Models	4.3 (0.3)
240 VAC/50 Hz Models	3.6 (0.25)

Maximum Flow Rate:	Pressure	Suction
	gpm (l/min)	gpm (l/min)
120 VAC/60 Hz Models	5.3 (20.1)	3.9 (14.7)
240 VAC/50 Hz Models	4.4 (16.7)	3.2 (12.2)

Features:

- Intuitive 3.75" (9.5 cm) display with touch-pad control
- 4 languages: French, German, Spanish, English
- Variable-speed pressure/suction pump with external circulation and temperature control capability
- Swivel 180™, LidDock™, DuraTop™
- On-board connectivity: USB-A & B, RS232/485, Ethernet and external temperature probe
- Automatic and/or user-adjustable performance optimization
- Single-point calibration
- Complies with DIN 12876-1 Class III safety requirements for use with flammable liquids

On-screen prompts – in English, French, Spanish, or German – guide you through setup and operation.

Class III safety features plus user-settable over-temperature safety and adjustable high and low temperature limits provide exceptional process and equipment protection.

For additional information on the Advanced Digital Controller's features and capabilities, see pages 22 and 23.

7-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
6.18 x 5.59 x 5"
15.7 x 14.2 x 12.7 cm

Overall Dimensions (L x W x H):
19.6 x 8.7 x 16.1"
49.9 x 22.1 x 40.9 cm

15-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
8.35 x 10.88 x 5.5"
21.2 x 27.6 x 14 cm

Overall Dimensions (L x W x H):
22.4 x 14.5 x 16.6"
56.9 x 36.8 x 42.2 cm

20-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
9.85 x 12.45 x 5.5"
25 x 31.6 x 14 cm

Overall Dimensions (L x W x H):
24 x 16.5 x 16.6"
61 x 41.9 x 42.2 cm

28-Liter: +200°C

Temperature Range:
Ambient +10° to +200°C

Working Access (L x W x D):
12.35 x 14.13 x 5.5"
31.4 x 35.9 x 14 cm

Overall Dimensions (L x W x H):
26.5 x 18 X 16.6"
67.2 x 45.7 x 42.2 cm

Reservoir Size	7 Liter	15 Liter	20 Liter	28 Liter
Temperature Range	Ambient +10° to +200°C			
Heater	1100 W (60 Hz)/2200 W (50 Hz)			
Part Number 120 VAC/60 Hz	AD07H200-A11B	AD15H200-A11B	AD20H200-A11B	AD28H200-A11B
Part Number 240 VAC/50 Hz	AD07H200-A12E	AD15H200-A12E	AD20H200-A12E	AD28H200-A12E

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.

Standard Digital Temperature Controller

Key Specifications

Working Temperature:	Up to 170°C
Temperature Stability:	±0.04°C

Maximum Pressure:	psi (bar)
120 VAC/60 Hz Models	3.5 (0.24)
240 VAC/50 Hz Models	2.9 (0.2)

Maximum Flow Rate:	Pressure
	gpm (l/min)
120 VAC/60 Hz Models	2.9 (11.0)
240 VAC/50 Hz Models	2.7 (10.2)

Features:

- Intuitive 3.75" (9.5 cm) display with touch-pad control
- 2-speed pressure pump with external (closed-loop) circulation capability
- Swivel 180™, LidDock™, DuraTop™
- On-board connectivity: RS232
- Automatic performance optimization
- Single-point calibration
- Complies with DIN 12876-1 Class I safety requirements for use with non-flammable liquids

Easy-to-use calibration function allows you to adjust the temperature display to match that of a traceable temperature standard.

Highly intuitive operator interface makes changing the temperature set-point or making other operational adjustments simple and straightforward.

For additional information on the Standard Digital Controller's features and capabilities, see pages 24 and 25.

7-Liter: +170°C

Temperature Range:
Ambient +10° to +170°C

Working Access (L x W x D):
6.18 x 5.59 x 5"
15.7 x 14.2 x 12.7 cm

Overall Dimensions (L x W x H):
19.6 x 8.7 x 16.1"
49.9 x 22.1 x 40.9 cm

15-Liter: +170°C

Temperature Range:
Ambient +10° to +170°C

Working Access (L x W x D):
8.35 x 10.88 x 5.5"
21.2 x 27.6 x 14 cm

Overall Dimensions (L x W x H):
22.4 x 14.5 x 16.6"
56.9 x 36.8 x 42.2 cm

20-Liter: +170°C

Temperature Range:
Ambient +10° to +170°C

Working Access (L x W x D):
9.85 x 12.45 x 5.5"
25 x 31.6 x 14 cm

Overall Dimensions (L x W x H):
24 x 16.5 x 16.6"
61 x 41.9 x 42.2 cm

28-Liter: +170°C

Temperature Range:
Ambient +10° to +170°C

Working Access (L x W x D):
12.35 x 14.13 x 5.5"
31.4 x 35.9 x 14 cm

Overall Dimensions (L x W x H):
26.5 x 18 X 16.6"
67.2 x 45.7 x 42.2 cm

Reservoir Size	7 Liter	15 Liter	20 Liter	28 Liter
Temperature Range	Ambient +10° to +170°C			
Heater	1100 W (60 Hz)/2200 W (50 Hz)			
Part Number 120 VAC/60 Hz	SD07H170-A11B	SD15H170-A11B	SD20H170-A11B	SD28H170-A11B
Part Number 240 VAC/50 Hz	SD07H170-A12E	SD15H170-A12E	SD20H170-A12E	SD28H170-A12E

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.

MX Temperature Controller

Key Specifications

Working Temperature:	Up to 135°C
Temperature Stability:	±0.07°C

Maximum Pressure:	psi (bar)
120 VAC/60 Hz Models	1.8 (0.12)
240 VAC/50 Hz Models	1.5 (0.10)

Maximum Flow Rate:	Pressure
	gpm (l/min)
120 VAC/60 Hz Models	3.4 (12.8)
240 VAC/50 Hz Models	2.8 (10.6)

Features:

- Large, 3.25" (8.3 cm) universal icon and English display
- Single-speed pressure pump with external (closed-loop) circulation capability
- LidDock™, DuraTop™
- User-adjustable high and low temperature limits and alarms
- Single-point calibration
- Complies with DIN 12876-1 Class I safety requirements for use with non-flammable liquids

Visual alarms alert you when bath temperature falls outside your pre-set limits.

Easy-to-use calibration function makes it simple to adjust the temperature display to match that of a traceable temperature standard.

For additional information on the MX Controller's features and capabilities, see pages 26 and 27.

7-Liter: +135°C

Temperature Range:
Ambient +10° to +135°C

Working Access (L x W x D):
6.18 x 5.59 x 5"
15.7 x 14.2 x 12.7 cm

Overall Dimensions (L x W x H):
19.6 x 8.7 x 17.2"
49.9 x 22.1 x 43.7 cm

15-Liter: +135°C

Temperature Range:
Ambient +10° to +135°C

Working Access (L x W x D):
8.35 x 10.88 x 5.5"
21.2 x 27.6 x 14 cm

Overall Dimensions (L x W x H):
22.4 x 14.5 x 17.8"
56.9 x 36.8 x 45.2 cm

20-Liter: +135°C

Temperature Range:
Ambient +10° to +135°C

Working Access (L x W x D):
9.85 x 12.45 x 5.5"
25 x 31.6 x 14 cm

Overall Dimensions (L x W x H):
24 x 16.5 x 17.8"
61 x 41.9 x 45.2 cm

Reservoir Size	7 Liter	15 Liter	20 Liter
Temperature Range	Ambient +10° to +135°C		
Heater	1100 W		
Part Number 120 VAC/60 Hz	MX07H135-A11B	MX15H135-A11B	MX20H135-A11B
Part Number 240 VAC/50 Hz	MX07H135-A12E	MX15H135-A12E	MX20H135-A12E

Electrical plugs for the part numbers listed are standard U.S. and European types. See page 128 for additional plug types and part numbers.