Temperature Controller Selection Guide

Controller Type	Performance Programmable	Advanced Programmable	Performance Digital	Advanced Digital	Standard Digital	MX[1]
Maximum Temperature	200°C	200°C	200°C	200°C	170°C	135°C
Temperature Stability	±0.005°C	±0.01°C	±0.005°C	±0.01°C	±0.04°C	±0.07°C
Swivel 180™ Rotating Controller	o	o	o	o	o	
Pump	Variable-Speed	Variable-Speed	Variable-Speed	Variable-Speed	2-Speed	1-Speed
Pump Pressure (maximum) psi (bar) 60Hz/50Hz	4.3 (0.3) / 3.6 (0.25)	4.3 (0.3) / 3.6 (0.25)	4.3 (0.3) / 3.6 (0.25)	4.3 (0.3) / 3.6 (0.25)	3.5 (.24) / 2.9 (0.2)	2.3 (.16) / 1.8 (0.12)
Pressure Flow Rate (maximum) gpm (l/min) 60Hz/50Hz	5.3 (20.1) / 4.4 (16.7)	5.3 (20.1) / 4.4 (16.7)	5.3 (20.1) / 4.4 (16.7)	5.3 (20.1) / 4.4 (16.7)	2.9 (11.0) / 2.7 (10.2)	3.6 (13.5) / 3.1 (11.9)
Suction Flow Rate (maximum) gpm (l/min) 60Hz/50Hz	3.9 (14.7) / 3.2 (12.2)	3.9 (14.7) / 3.2 (12.2)	3.9 (14.7) / 3.2 (12.2)	3.9 (14.7) / 3.2 (12.2)		
Closed-Loop Operation	o	o	o	o	o	o
Open-Loop Operation	o	o	o	o		
Fluid Optimization/Specific Heat Tuning	o	o	o	o		
Temperature Calibration Capability	10-point	5-point	10-point	1-point	1-point	1-point
WhisperCool® Environmental Control System	o	o	o	o	o	o
Inert Gas Reservoir Purge	o	o	o	o	o	
Display Type & Size	SmartTouch Color LCD 4.3"	SmartTouch Color LCD 4.3"	SmartTouch Color LCD 4.3"	SmartView LCD Touch-Pad 3.75"	EasyView LCD Touch-Pad 3.75"	EasyView LCD 3.25"
Enhanced Data Display Capability	7 selectable views	7 selectable views	6 selectable views	Message Bar		
Multi-Language Menus or Prompts	11 languages	6 languages	11 languages	4 languages	Icon/English	Icon/English
Displays Temperature Trend	o	o	o			
Time/Temperature Programs & Steps	Open-Mode	Ten 100 step programs				
Date & Time with Calendar Start/Stop	o	o	o			
Timer	o	o	o	o		
On-Screen Help or Prompts	o	o	o	o		
External Temperature Control Capability (Pt100)	o	o	o	o		
RS232/RS485 Serial Output	o	o	o	o	RS232	
Remote On/Off Capability	o		o			
USB-A and USB-B	o	o	o	o		
Ethernet	o	o	o	o		
DeviceNet™/Canbus, Modbus®, Profibus® (optional)	o		o			
Software Support for LabVIEW™ included	o		o			
Backlit Display	o	o	o	o	o	o
Automatic Loss of Power Reset	Selectable	Selectable	Selectable	Selectable	Yes	Yes
Safety Class (DIN 12876-1)	III	III	III	III	I	I
Over-Temperature Protection	o	o	o	o	o	o
Failsafe Heater Control	o	o	o	o	o	o
High and Low Temperature Limits/Alarms	o	o	o	o	o	o
Low-Liquid-Level Safety	o	o	o	o	o	o
Alarm and Fault Indicators	Message	Message	Message	Message	Icon	Icon

1. Patented design for MX Immersion Circulator. and MX Controller.

Integrated Circulating Bath Selection Guide

Refrigerated/Heated Circulating Bath Selection Guide

Capacity	7 Liter (Low Profile)	7 Liter	7 Liter	15 Liter	15 Liter	20 Liter	28 Liter	45 Liter[2]
Maximum Temperature[1]	200°C	200°C	200°C	200°C	200°C	200°C	200°C	135°C
Minimum Temperature	-20°C	-20°C	-40°C	-30°C	-40°C	-30°C	-30°C	-25°C
Cooling Capacity @ 20°C	200 W	200 W	505 W	915 W	1000 W	915 W	915 W	1400 W
Working Access (L x W x D)	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	8.4 x 10.9 x 5.5 in 21.2 x 27.6 x 14 cm	8.4 x 10.9 x 5.5 in 21.2 x 27.6 x 14 cm	9.9 x 12.5 x 5.5 in 25 x 31.6 x 14 cm	12.4 x 14.1 x 5.5 in 31.4 x 35.9 x 14 cm	21.6 x 15.7 x 5.5 in 54.9 x 39.8 x 14 cm
Drain	○	○	○	○	○	○	○	○
LidDock™	○	○	○	○	○	○	○	
Performance Programmable	PP7LR-20	PP07R-20	PP07R-40	PP15R-30	PP15R-40	PP20R-30	PP28R-30	PP45R-20
Advanced Programmable	AP7LR-20	AP07R-20	AP07R-40	AP15R-30	AP15R-40	AP20R-30	AP28R-30	AP45R-20
Performance Digital	PD7LR-20	PD07R-20	PD07R-40	PD15R-30	PD15R-40	PD20R-30	PD28R-30	PD45R-20
Advanced Digital	AD7LR-20	AD07R-20	AD07R-40	AD15R-30	AD15R-40	AD20R-30	AD28R-30	AD45R-20
Standard Digital	SD7LR-20	SD07R-20		SD15R-30		SD20R-30	SD28R-30	
MX	MX7LR-20	MX07R-20		MX15R-30		MX20R-30		

1. Maximum temperature is controller dependent.
2. All 45L Circulating Baths are 208-240 VAC, 50/60Hz

Fully Integrated Heated Circulating Bath Selection Guide

Capacity	7 Liter	15 Liter	20 Liter	28 Liter
Maximum Temperature[1]	200°C	200°C	200°C	200°C
Minimum Temperature[2]	Ambient +10°C	Ambient +10°C	Ambient +10°C	Ambient +10°C
Working Access (L x W x D)	6.2 x 5.6 x 5 in 15.7 x 14.2 x 12.7 cm	8.4 x 10.9 x 5.5 in 21.2 x 27.6 x 14 cm	9.9 x 12.5 x 5.5 in 25 x 31.6 x 14 cm	12.4 x 14.1 x 5.5 in 31.4 x 35.9 x 14 cm
Tank Material	Insulated Stainless Steel	Insulated Stainless Steel	Insulated Stainless Steel	Insulated Stainless Steel
Drain	○	○	○	○
Tap Water Cooling-Coil	○	○	○	○
LidDock™	○	○	○	○
Performance Programmable	PP07H200	PP15H200	PP20H200	PP28H200
Advanced Programmable	AP07H200	AP15H200	AP20H200	AP28H200
Performance Digital	PD07H200	PD15H200	PD20H200	PD28H200
Advanced Digital	AD07H200	AD15H200	AD20H200	AD28H200
Standard Digital	SD07H170	SD15H170	SD20H170	SD28H170
MX	MX07H135	MX15H170	MX20H135	

1. Maximum temperature is controller dependent.
2. Minimum temperature is shown with no external heat load.