

75 Liter Refrigerated Circulating Bath

Image:



AP75R-20

Key Specifications

Description	75 L, Ref. Circulator
Controller Type	Advanced Programmable
Display	4.3" SmartTouch Touchscreen
Connectivity	Ethernet, USB A & B, RS232/addressable RS485, Remote On/Off, External Temperature Probe
Languages Supported	11: French, German, Spanish, Chinese, Portuguese, Russian, Hindi, Arabic, Italian, Korean, English
Time/Temperature Programs & Steps	Open Mode: No restriction on the number of programs or steps
Swivel 180 Rotating Controller	Yes
Working Temperature Range °C	-20° to 100°
Temperature Stability °C	±0.005°
Fluid Optimization/Specific Heat Tuning	Automatic and/or user-adjustable
Temperature Calibration Capability	10-point
Working Access (L x W x D) (cm)	54.9 x 39.8 x 23.9 cm
Pump Type	Pressure/Suction

Flammability Class (DIN III (FL)
12876-1)

Key Features

75L , -20C

Key Features

- OpenMode time/temperature programming (no restrictions 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 pump with open- and closed-loop external circulation capability
- Swivel 180™ Rotating Controller
- On-board connectivity: USB-A & B, Ethernet, RS232/485, remote on/off and external temperature probe
- Event scheduling (time & date) with real-time clock
- Review temperature trends for up to 10 days
- Multiple selectable home screens
- On-screen help
- Automatic and/or user-adjustable performance optimization
- 10-point calibration capability
- Includes Enhanced Performance Hardware & Software Package (Pt100 temperature probe, USB flash drive for data logging, stainless steel fittings and tubing adapters, PolyScience LabVIEW™ Virtual Instrument, iPhone® application download)

Absolute Precision



Absolute Precision

Our most precise and sophisticated temperature controller, the Performance Programmable combines $\pm 0.005^{\circ}$ temperature stability, $1/1000^{\circ}$ temperature resolution, 10-point user calibration capability, highly advanced fluid tuning and external control to deliver exacting temperature control.

Total Control



Total Control

Create, review and run even the most complex ramp and soak temperature program quickly, easily and without guesswork. Highly intuitive programming application lets you add, edit or delete steps quickly. Settable time or temperature priority ensures programs run as intended. Plain-text program naming and preview function make it easy to identify stored programs. Convenient upload/download utility allows you to quickly share or backup stored programs. Plus, the intelligent scheduling application even lets you schedule a program to run automatically – hours, days, weeks, even months in the future.

Completely Connected



Completely Connected

With the Performance Programmable, you can check and control your PolyScience Circulator for the other side of the lab – or the other side of the world! It features an extensive suite of control, data logging, and communications options, including protocols that emulate the communication and command sets of other popular circulating baths. Connectivity capabilities include Ethernet, RS-232, addressable RS-485, remote on/off, USB-A and USB-B plus software support for LabVIEW™. In addition, a pioneering iPhone® application provides easy mobile access.

Exceptional Convenience



Exceptional Convenience

Multi-language menus, contextual on-screen help and highly intuitive operation make using the Performance Programmable Controller exceptionally easy. Set-point changes take just a few simple touches. This intelligent controller even alerts you when routine maintenance is required.

Extraordinary Safety



Extraordinary Safety

Engineered to Class III flammability requirements (per DIN 12876-1), the Performance Programmable Controller protects your samples, equipment and processes with a variety of safety features, including a redundant over-temperature safety, high and low temperature limits, high and low temperature alarms, and a user-settable safety. A password protected lockout can also be activated that prevents unauthorized set-point and other operational changes.

Common Specifications

Working Temperature Range °F	-4° to 212°
Working Temperature Range °C	-20° to 100°
Nominal Cooling Capacity @ +20C (W)	1400
Reservoir Capacity (gallons)	19.81
Reservoir Capacity (liters)	75
Reservoir/Tank Material	Stainless Steel
Reservoir Cover	Included
DuraTop	Yes
Cleanable Air Filter	Yes
Working Access (L x W x D) (inches)	21.6 x 15.7 x 9.4 in
Working Access (L x W x D) (cm)	54.9 x 39.8 x 23.9 cm
Temperature Stability °F	±0.01°
Temperature Stability °C	±0.005°
Display	4.3" SmartTouch Touchscreen
Display Resolution (Set)	0.01
Display Resolution (Read)	0.001
Pump Type	Pressure/Suction
Pump Speed	Variable
Process Connections	1/4" (F) NPT
Flammability Class (DIN 12876-1)	III (FL)
Over-Temperature Protection / Failsafe Heater Control	Yes
Low Liquid Level Protection	Yes
WhisperCool Environmental Control Technology	Yes
Cool Command Refrigeration Technology	Yes
Reservoir Drain	Yes
Included Software	PolyTemp Viewer, TDMS file viewer, USB driver, PolyScience LabVIEW Virtual Instrument & Functions, Time/Temperature Program Generator, PolyTemp Remote iPhone application
Maximum Ambient Temperature °F	95°
Maximum Ambient Temperature °C	35°

Overall Dimensions (L x W x H) (inches)	35.8 x 22.4 x 42.1 in
Overall Dimensions (L x W x H) (cm)	90.9 x 56.9 x 107 cm
Environmental Compliance	RoHS, WEEE
Shipping Weight (pounds)	200.0
Shipping Weight (kilograms)	90.6
Catalog Page Number	74

50 Hz Only

Part Number	AP75R-20-A12E
Maximum Pressure (psi)	3.6
Maximum Pressure (bar)	0.25
Maximum Pressure Flow Rate (gpm)	4.40
Maximum Pressure Flow Rate (l/min)	16.7
Maximum Suction Flow Rate (gpm)	3.2
Maximum Suction Flow Rate (l/min)	12.2
Cooling Capacity @ -20°C (W)	250
Cooling Capacity @ 0°C (W)	800
Cooling Capacity @ +20°C (W)	1400
Cooling Capacity @ +100°C (W)	1400
Included Hardware	PT100 temperature probe, USB drive, stainless steel hose adapters for 3/8", 1/4", and 3/16", and 1/4" NPT to M16 adapter
Electrical Requirements (VAC/Hz/Ph/A)	240/50/1/13
Regulatory Approvals	CE

60 Hz Only

Part Number	AP75R-20-A13D
Maximum Pressure (psi)	4.3
Maximum Pressure (bar)	0.30
Maximum Pressure Flow Rate (gpm)	5.30
Maximum Pressure Flow Rate (l/min)	20.1
Maximum Suction Flow Rate (gpm)	3.9
Maximum Suction Flow Rate (l/min)	14.7

Cooling Capacity @ -20°C (W)	250
Cooling Capacity @ 0°C (W)	800
Cooling Capacity @ +20°C (W)	1400
Cooling Capacity @ +100°C (W)	1400
Included Hardware	PT100 temperature probe, USB drive, stainless steel hose adapters for 3/8", 1/4", and 3/16"
Electrical Requirements (VAC/Hz/Ph/A)	208-240/50/60/1/13
Regulatory Approvals	ETL



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