

7 Liter Refrigerated Circulator, -20°C



PP07R-20

Key Specifications

Description	-20, 7 L Ref. Circulator
Controller Type	Performance 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 200°
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)	15.7 x 14.2 x 12.7 cm

Pump Type	Pressure/Suction
External Temperature Control Capability	Yes
Flammability Class (DIN 12876-1)	III (FL)
Electrical Plug Options	Part numbers listed are Standard U.S. and European types. Country specific plug types available. Contact your regional distributor to order.

Key Features

Performance Programmable Controller

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, RS-232/RS-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)
- Available with DeviceNet/CANbus, Modbus, and Profibus options

Common Specifications

Working Temperature Range °F	-4° to 392°
Working Temperature Range °C	-20° to 200°
Nominal Cooling Capacity @ +20C (W)	200



Reservoir Capacity (gallons)	4.05
	1.85
Reservoir Capacity (liters) Reservoir/Tank Material	7
	Stainless Steel
Reservoir Cover	Included
DuraTop	Yes
LidDock	Yes
Cleanable Air Filter	Yes
Working Access (L x W x D) (inches)	6.18 x 5.59 x 5 in
Working Access (L x W x D) (cm)	15.7 x 14.2 x 12.7 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
External Temperature Control	Yes
Capability	
Flammability Class (DIN 12876-1)	III (FL)
Over-Temperature Protection /	Yes
Failsafe Heater Control	
Low Liquid Level Protection	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)	21.3 x 8.7 x 24.3 in
Overall Dimensions (L x W x H) (cm)	54.1 x 22.1 x 61.7 cm
Refrigerant	R134a
Environmental Compliance	RoHS, WEEE
Shipping Weight (pounds)	90.0
Shipping Weight (kilograms)	40.8

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60 Hz Only

Part Number	PP07R-20-A11B
Maximum Pressure (psi)	4.3
Maximum Pressure (bar)	0.30
Maximum Pressure Flow Rate (gpm)	5.30
Maximum Pressure Flow Rate	20.1
(l/min)	
Maximum Suction Flow Rate (gpm)	3.9
Maximum Suction Flow Rate (I/min)	14.7
Cooling Capacity @ -20°C (W)	30
Cooling Capacity @ 0°C (W)	120
Cooling Capacity @ +20°C (W)	200
Cooling Capacity @ +100°C (W)	200
Included Hardware	PT100 temperature probe, USB drive, stainless steel hose adapters for
	3/8", 1/4", and 3/16"
Heater Wattage	1100
Electrical Requirements	120/60/1/12
(VAC/Hz/Ph/A)	
Regulatory Approvals	ETL

50 Hz Only

Part Number	PP07R-20-A12E
Maximum Pressure (psi)	3.6
Maximum Pressure (bar)	0.25
Maximum Pressure Flow Rate (gpm)	4.40
Maximum Pressure Flow Rate	16.7
(I/min)	
Maximum Suction Flow Rate (gpm)	3.2
Maximum Suction Flow Rate (I/min)	12.2
Cooling Capacity @ -20°C (W)	30
Cooling Capacity @ 0°C (W)	120
Cooling Capacity @ +20°C (W)	200
Cooling Capacity @ +100°C (W)	200

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
Heater Wattage	2200
Electrical Requirements (VAC/Hz/Ph/A)	240/50/1/12
Regulatory Approvals	CE