

# Circulators

## Refrigeration Units



Integrated refrigeration units with built-in thermostatic controllers and insulated, stainless steel bath tanks to ensure economical operation with high accuracy and stability.

- ◆ Choice of four thermostatic controller levels; MX, Standard Digital (SD), Advanced Digital (AD) and Advanced programmable (AP)
- ◆ Temperature ranges from -40°C up to +200°C, dependent on the controller chosen and bath fluid chosen
- ◆ All controllers feature pumped, closed-circuit circulation with AD and AP units additionally offering open-circuit circulation with return suction and remote monitoring/control using accessory Pt100 temperature probes
- ◆ Safety features include high/low temperature limits with alarms and indicators, low liquid level safety cut-out and power outage reset

### Thermostatic Controllers

Ref.		MX	SD	AD	AP
Maximum temperature,	°C	+135 (MX controller), +200 (rest of range)			
Stability	±°C	0.07	0.04	0.01	0.005
Display (backlit), resolution	°C	LCD, 0.1	LCD, 0.1	LCD, 0.01	Colour LCD, 0.01
Pump max. pressure (water)	mbar	120	200	250	250
Max. pump flow rate	l/min.	11.9	10.2	16.7	16.7
Max. suction flow rate	l/min.	—	—	12.2	12.2
Pump speed		single	two	variable	variable
Temperature calibration points		1	1	1	10
Programming capability?		—	—	—	Yes
Timer?		—	—	Yes	Yes
Interfaces		—	RS232	RS232/RS485, USB, ethernet - both models	
Inlet/outlet tubing bores	mm	13 - all models			
Supply requirement		240V 50Hz single phase - all models			

Catalogue no.,	MX controller	<b>CL123-05</b>	—	<b>CL123-10</b>
	SD controller	<b>CL123-20</b>	—	<b>CL123-25</b>
	AD controller	<b>CL123-30</b>	<b>CL123-35</b>	<b>CL123-40</b>
	AP controller	<b>CL123-45</b>	<b>CL123-50</b>	<b>CL123-55</b>
Minimum temperature	°C	-20	-40	-30
Refrigerant		R134A	R404A	R404A
Tank capacity	litres	7	7	15
Working access L x W x D,	mm	157 x 142 x 127	157 x 142 x 127	212 x 276 x 140
Inlet/outlet tubing bores	mm	13 - all models		
Overall L x W x H,	mm	541 x 221 x 645	541 x 221 x 617	569 x 368 x 683
Weight,	kg	38.1	40.8	53.5

Other ranges are available - details on request

### Refrigeration Units, PolyScience

As described. For 240V 50Hz single phase supplies.

- CL123-05** MX07R-20, 7 litres, -20 to +135°C
- CL123-10** MX15R-30, 15 litres, -30 to +135°C
- CL123-20** SD07R-20, 7 litres, -20 to +200°C
- CL123-25** SD15R-30, 15 litres, -30 to +200°C
- CL123-30** AD07R-20, 7 litres, -20 to +200°C
- CL123-35** AD07R-40, 7 litres, -40 to +200°C
- CL123-40** AD15R-30, 15 litres, -30 to +200°C
- CL123-45** AP07R-20, 7 litres, -20 to +200°C
- CL123-50** AP07R-40, 7 litres, -40 to +200°C
- CL123-55** AP15R-30, 15 litres, -30 to +200°C

### Bath fluids, PolyScience

Supplied in packs of one gallon (3.8 litres).

- BJ464-03** -50 to 100°C, viscosity 3cSt at 25°C
- BJ464-06** -50 to 150°C, viscosity 50cSt at 25°C
- BJ464-09** 100 to 200°C, viscosity 125cSt at 25°C
- BJ464-12** 150 to 250°C, viscosity 500cSt at 25°C

### Accessory Pt100 Temperature Probes

For use with AD/AP controllers only when monitoring/controlling the contents of remotely heated vessels in open-circuit operation.

- BJ443-92** Pt100 probe, 0.6m cable
- BJ443-96** Pt100 probe, 2m cable
- BJ443-98** Pt100 probe, 8m cable



CL123



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