RECIRCULATING HEATER CHILLER

UHC-2040

-40°C to 200°C 6L Heater Chiller for 20L Reactors

The UHC-20/40 provides a uniform temperature liquid loop for 20L reactor jackets and other heat exchangers, using both heating and cooling across -40°C to 200°C. A 3kW heater, 3.7kW refrigeration, and a plate heat exchanger achieve large temperature changes rapidly, while the closed loop 6L reservoir holds +/- 2°C accuracy.

- **Wide temperature range.** -40°C to 200°C with high performance silicone oil, +/- 2°C accuracy.
- **Strong refrigeration.** 3.7kW refrigerating wattage from a phase change compressor.
- **Rapid temperature changes.** Plate heat exchanger achieves large changes in temperature rapidly.
- **Closed loop design.** Small in-feed hole closes the reservoir off from the outside environment.
- **Easy to monitor.** Sight glass, compressor gauges, and casters for portability.

MODEL UHC-2040



-40 to 200 °C	11,976 BTU	3 kW	3.7 kW	6 L
TEMPERATURE RANGE	COMPRESSOR CAPACITY AT 20°C	HEATING WATTAGE	REFRIGERATING WATTAGE	RESERVOIR CAPACITY

Technical Specifications

Model **UHC-2040**

TEMPERATURE CONTROL

Temperature range	-40°C to 200°C
Accuracy	+/- 2°C
Heating wattage	3kW
Over-temperature protection	Over temperature safety dial

REFRIGERATION

Compressor	Phase change compressor
Refrigerating wattage	3.7kW
Compressor BTU capacity	11,976 @20°C / 3,344 @-40°C
Refrigerant	R-448 (2025+)
Heat exchanger	Plate heat exchanger
Compressor cycling	No more than 5 times per day

OPERATION

Control panel	LCD display on front of chiller
Display	Point value (PV) and set value (SV)
Duty cycle	Maximum 16 hours; not for 24-hour operation
Operating ambient	70°F or 20°C; degraded above 80°F or 26°C

CIRCULATION

Pump flow	18L/Min (spec table); 35L/min water (manual)
Pump pressure	6.5PSI (6m/18ft) (spec table); 28.48 psi, 20m / 65.62 ft. (manual)
Pump wattage	100W (spec table); 250W (manual)
Fluid connections	3/4" MNPT
Loop type	Closed loop

ELECTRICAL

Power supply	220-240V, 30A, single phase
Frequency	60Hz (spec table); 50-60Hz (product fields)
Input voltage range	219V - 253V; not compatible with 208V
Total wattage	6000W (spec table); 5kW (manual)
Plug	NEMA 6-30P (spec table); NEMA L6-30P (manual electrical section)

BATH AND DIMENSIONS

Reservoir capacity	6L
Reservoir lid	Screw lid included
Fluid level indicator	Sight glass
Dimensions	25" x 22" x 42"
Weight	321 lb
Mobility	Casters

ORDERING INFORMATION

CATALOG NO.	DESCRIPTION	ELECTRICAL
UHC-2040	-40°C to 200°C 6L Heater Chiller UHC-20/40 For 20L reactors, 6L reservoir	220-240V, 30A, single phase

IDEAL APPLICATIONS

Vacuum systems · Jacketed reactors · Rotary evaporators · Columns · Solvent tanks · Analytical instruments

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