RECIRCULATING HEATER CHILLER

UHC-5040

-40°C to 200°C 12L Heater Chiller for 50L & 100L Reactors

The UHC-50/40 provides a uniform temperature liquid loop for reactor jackets and other heat exchangers across a -40°C to 200°C range. A 6kW heater, 10.2kW refrigeration, and a plate heat exchanger achieve large temperature changes rapidly, and when connected to a reactor the unit can maintain consistent sub-zero or overboiling temperatures.

- **Wide temperature range.** -40°C to 200°C with high performance silicone oil.
- **Rapid temperature changes.** Plate heat exchanger with 6kW heating and 10.2kW refrigeration.
- **Strong circulation.** 35L/Min pump at 28.48 PSI through 3/4" MNPT connections.
- **Closed loop design.** Small in-feed hole lets the entire fluid reservoir close off from the outside environment.
- **Ready to connect.** Includes insulated metal flex hoses, valves, fittings, and PTFE sealing tape.

MODEL UHC-5040



-40 to 200 °C	33,058 BTU	6 kW	35 L/min	12 L
TEMPERATURE RANGE	COMPRESSOR CAPACITY AT 20°C	HEATING POWER	PUMP FLOW	RESERVOIR CAPACITY

Technical Specifications

Model **UHC-5040**

TEMPERATURE CONTROL

Operating range	-40°C to 200°C
Temperature accuracy	+/- 2°C
Heating wattage	6kW
Recommended fluids	High performance silicone oil (-40°C to 200°C); PG 60% : DW 40% (-40°C to 110°C)

REFRIGERATION

Refrigerating wattage	10.2kW
Compressor capacity	33,058 BTU @20°C / 8,737 BTU @-40°C
Compressor type	Phase change compressor
Refrigerant	R-448 (2025+)

OPERATION

Controls	LCD control panel on front of chiller
Duty cycle	Not intended for 24-hour operation; maximum 16 hours
Compressor limits	Maximum 5 cycles per day; 10 minute cool-down
Ambient temperature	70°F or 20°C; performance degraded above 80°F or 26°C

CIRCULATION

Pump flow	35L/Min
Pump pressure	28.48 PSI (20m/65.62ft)
Pump wattage	250W
Fluid connections	3/4" MNPT

ELECTRICAL

Power supply	220-240V 60Hz 45A 9950W Single Phase
Acceptable input	219V - 253V
208V	Not compatible
Connection	Hardwired; single phase quick disconnect 60 amp panel, own circuit

BATH AND DIMENSIONS

Reservoir capacity	12L
Fluid with reactor	Nearly 9 gallons
Dimensions	28" x 26" x 44"
Weight	412 lb
Mobility	Casters

ORDERING INFORMATION

CATALOG NO.	DESCRIPTION	ELECTRICAL
UHC-5040	-40°C to 200°C 12L Heater Chiller UHC-50/40 For 50L & 100L Reactors, 12L reservoir	220-240V 60Hz 45A Single Phase Hardwired with quick disconnect panel

IDEAL APPLICATIONS

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

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