-80°C RECIRCULATING CHILLER

UC-30/80

-80°C 30L Recirculating Chiller with PLC Touchscreen

The UC-30/80 is an open-loop recirculating chiller that uses phase change compressors to provide external cooling from ambient to -80°C for laboratory and related systems. Two 4HP Tecumseh compressors, a 42 L/min pump, and a PLC touchscreen with programmable temperature cycles deliver ±0.5°C accuracy from a 30 L reservoir.

- **Deep cooling.** Ambient to -80°C with ±0.5°C temperature accuracy.
- **Two-stage refrigeration.** 2× 4HP Tecumseh compressors, 16,000 BTU at 20°C.
- **Programmable PLC control.** Touchscreen with constant and program modes for temperature cycles.
- **Strong circulation.** 42 L/min pump flow with 18.7 ft maximum lift.
- **Easy positioning.** Casters, front emergency stop, and lidded 30 L reservoir.

MODEL UC-30/80



-80 °C	16,000 BTU	42 L/min	30 L
AMBIENT TO -80°C	COOLING AT 20°C	PUMP FLOW	RESERVOIR CAPACITY

Technical Specifications

Model **UC-30/80**

TEMPERATURE CONTROL

Temperature range	Room temp to -80°C / -112°F
Accuracy	±0.5°C

REFRIGERATION

Compressors	2× 4HP Tecumseh
Cooling capacity	16,000 BTU at 20°C; 1,450 BTU at minimum °C
Refrigerant	STG1: R-448 (2025+); STG2: R23
Type	Phase change compressor
Compressor start delay	5-10 minute standby

OPERATION

Control	PLC touchscreen
Modes	Constant, Program
Programming	Programmable cycles of temperature levels
Emergency stop	Front of unit
Duty cycle	16 hours maximum; not for 24-hour operation
Compressor cycling	Max 5 times per day; 10 minute delay

CIRCULATION

Pump flow	42 L/min
Pump wattage	100W
Max lift	18.7 ft
Pump pressure	2.5 psi @ 3.9 ft to 8.8 psi @ 18.7 ft
Barb size	5/8"
Pump model	LPS25-6S/130

ELECTRICAL

Power supply	220-240V, 60Hz, 30A, single phase
Power	5250W
Acceptable voltage	219V-253V; not compatible with 208V
Plug	NEMA L6-30P
Circuit	Dedicated circuit installed by a qualified electrician

BATH AND DIMENSIONS

Reservoir capacity	30 L
Reservoir dimensions	13.7" x 13.7"
External dimensions	39" x 31.9" x 48.4"
Weight	450 lb
Mobility	Casters

ORDERING INFORMATION

CATALOG NO.	DESCRIPTION	ELECTRICAL
UC-3080	-80°C 30L Recirculating Chiller Ambient to -80°C, 30 L reservoir, 42 L/min	220-240V, 60Hz, 30A NEMA L6-30P plug

IDEAL APPLICATIONS

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

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