www.koolance.com

Specifications Sheet

Generated: 2026-11-12

P/N: EXC-450

EXC-450 Portable 450W Recirculating Liquid Chiller, 24VDC (Rev.2.0)



Koolance's EXC-450 is an extremely compact (6in x 8in x 21in, or 152mm x 203mm x 533mm) portable recirculating liquid chiller rated at 450W, or 1535 BTU/hr (@25°C liquid & ambient). Chiller control is based on one of four configurable temperature set-points, including the option to lock liquid to ambient for avoiding condensation or to an external K-type thermocouple sensor (not included).

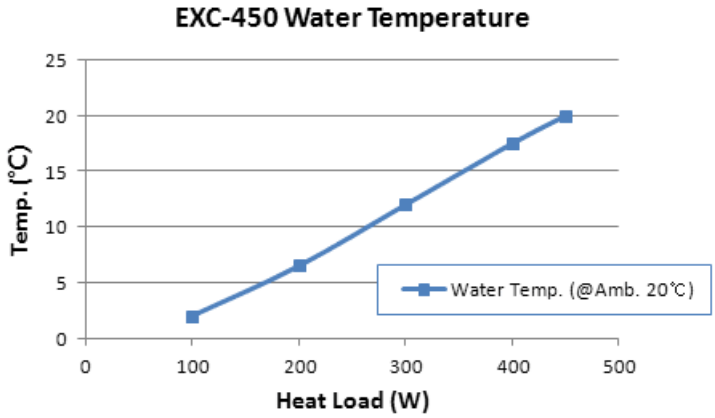
Coolant flow rate, temperature, and reservoir level are monitored, and a USB port allows control and logging of most features using the Koolance System Monitor application. A 0-5V differential voltage output is also provided for industrial process monitoring.

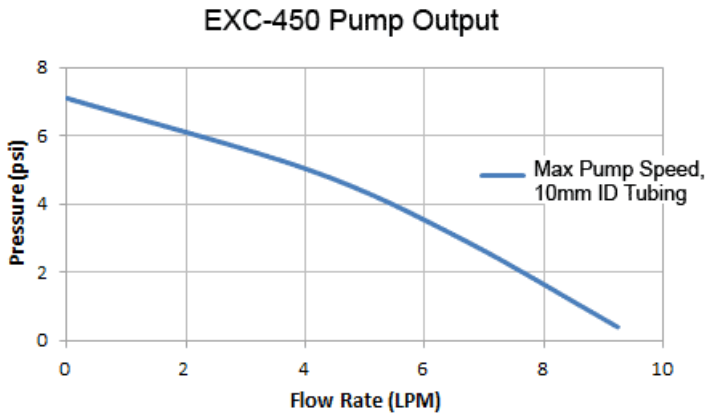
- Cooling capacity: 450W (1535BTU/hr) @ 25°C liquid/ambient
- Temperature options: liquid set-point, external thermocouple set-point, liquid and ambient delta-T, external thermocouple and ambient delta-T; toggle °C/°F
- Pump: 10 manual levels, up to 8.2LPM (2.2GPM)
- Select only values you want displayed on the front 2-line OLED display (fixed or rotating)
- Show pump impeller speed in RPM
- Show coolant flow rate in LPM/GPM
- Show condenser fan speed in RPM
- Adjust audio alarm and relay trigger (NO or NC) based on: temperature, flow rate, coolant level, pump RPM, and condenser fan RPM
- Refrigerant: R-134a
- Power input: 24VDC, 250W
- Maximum power consumption @ ambient (approximate): 230W @ 25°C
- Designed for an operational temperature range of 0-40°C (ambient and liquid)
- Reservoir capacity: 1 liter
- NPT 1/4in threads on back for fittings

NOTE: Requires 24VDC input power. Koolance offers a separate power supply for AC wall outlet sources. Keep unit upright at all times, and for at least 24 hours before applying power to ensure sufficient oil reaches the compressor.

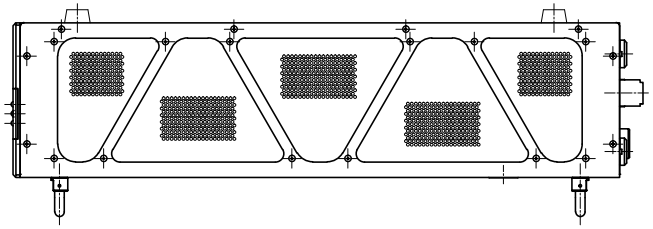
General	
Weight	20.00 lb (9.07 kg)
Fitting Thread	NPT 1/4 inch
Max Pressure Tolerance @ 25°C	2kgf/cm2 (28.5psi)
Max Temperature Tolerance	40°C (104°F)
Noise (dBA)	39-54
Cooling Systems	
Cooling Capacity	450W (1535BTU/hr) @ 25°C liquid & ambient (0°C dT)
Display Type	OLED

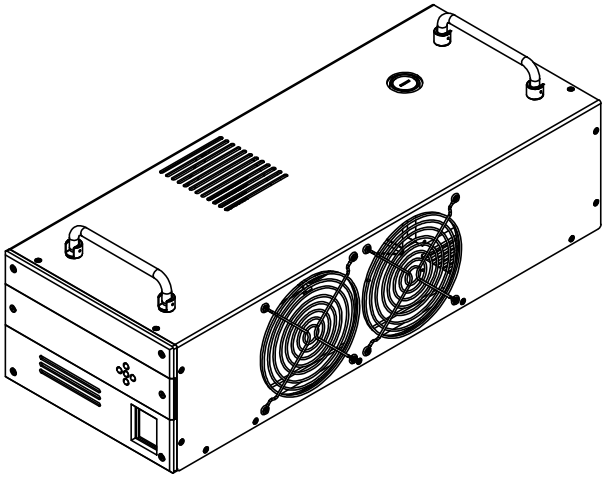
General	
Max Flow Rate (10-13mm ID)	8.2LPM (2.2GPM)
Max Power Consumption	230W
Max Static Pressure (10-13mm ID)	0.5kgf/cm2 (7psi)
Power Source	24 VDC
Temperature Sensors	Liquid & One K-Type Thermocouple (optional)
Temperature Stability	+/-1ºC

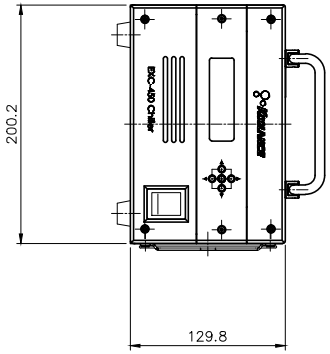


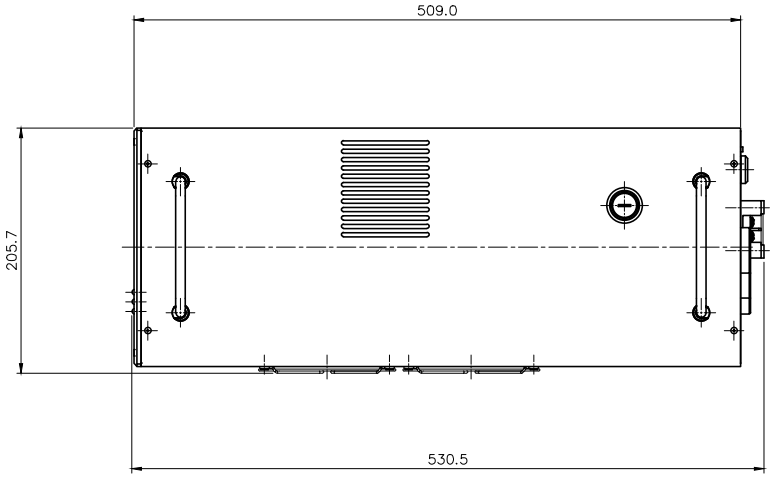


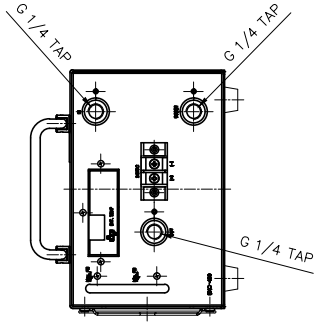
File

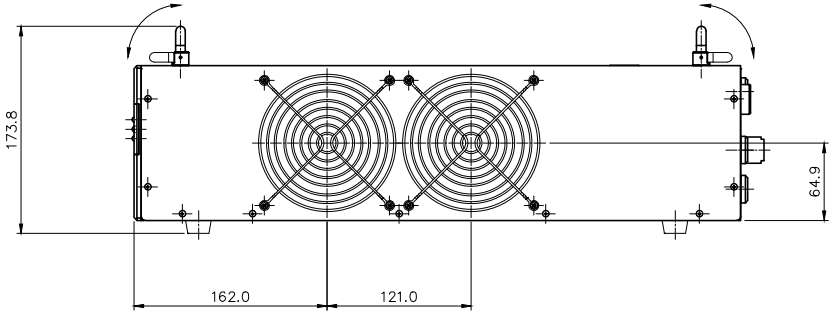












NO.	DESCRIPTION	MATER'L	QUANTITY	REMARKS
KOOLANCE INC.		UNIT MM	ITEM EXC-450	
	BY BY BY APPRO BY	SCALE N/S	TITLE Ass'y	
DATE		3RD ANGLE		
	S.J.LEE	CODE NO.	DWG. NO.	PAGE