Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

MRC300,DH2,DV
Re-circulating Chiller



The MRC Series is a bench top re-circulating chiller that offers dependable, compact performance by controlling the temperature of a coolant in a liquid circuit. The coolant is re-circulated using a pump with high MTBF. Heat from coolant is absorbed by a heat exchanger and dissipated thru high density heat sinks equipped with brand name fans. The thermoelectric modules are custom designed to achieve long life operation. The unit is regulated with an easy to use digital temperature controller and is housed inside an aesthetic sheet metal casing. Custom configurations are available, however, MOQ applies.

FEATURES

- Compact Design
- Precise Temperature Control
- Reliable Solid State Operation
- Low Noise
- RoHS Compliant

APPLICATIONS

- Medical Imaging Systems
- Medical Lasers
- Photonics Laser Systems
- Industrial Instrumentation
- Laboratory Testing

Specifications	
Cooling capacity[1]	290 Watts
Input voltage	115 to 230 VAC
Operating environment temperature range[2]	4.4°C to 45°C (40°F to 113°F)
Control temperature range using distilled H_2O as coolant, °C (°F) [3]	2°C to 40°C (35°F to 104°F)
Control temperature range using 70% distilled H_2O and 30% glycol as coolant [2]	-12°C to 40°C (10.4°F to 104°F)
Controller accuracy	±0.16°C
Current, 115VAC (230VAC)	8.5 (4.3) Amps
Input power	507 Watts
Frequency	50/60 Hz
Dimensions, (h x w x d)	39.1 x 20.3 x 33.8 cm (15.4 x 8.0 x 13.3) in
Weight	13.6 kgs (30 lbs)
Maximum flow rate	3.3 lpm (0.87 gpm)
Fluid capacity	450 mL (15.2 oz)
UL Rating	UL61010-1/IEC61010-1

[1] Capacity rating is given at a temperature of 25°C (77°F) for the ambient air and exiting fluid.

[2] For ambient conditions outside this range, please contact Laird Technologies.

[3] For temperature settings below 5°C, an appropriate coolant must be used.

global solutions: local support™

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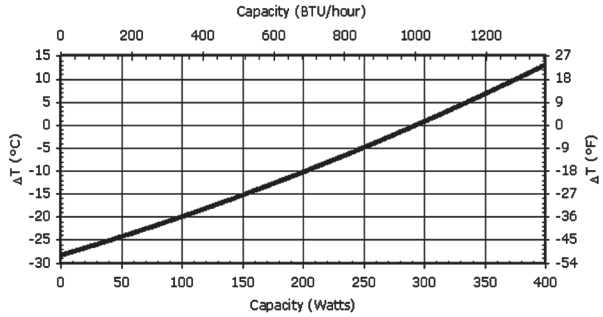
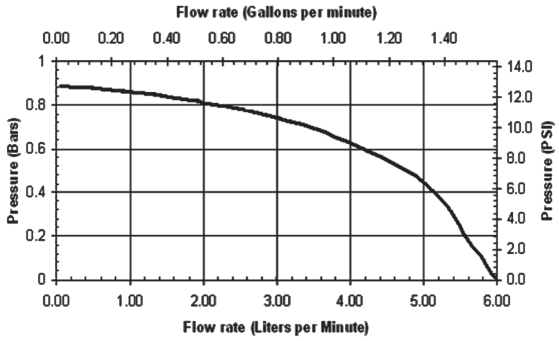
Performance Curves

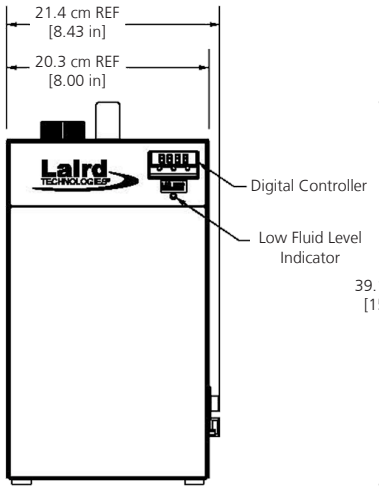
Thermal Capacity

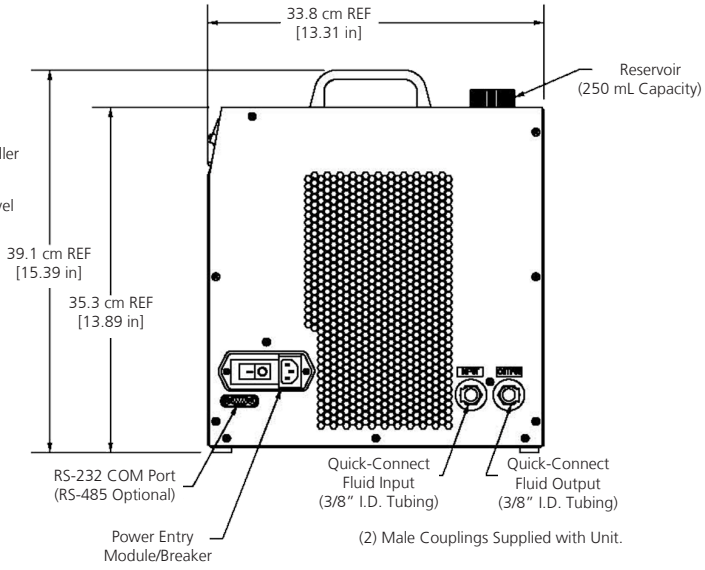
ΔT = Outlet Fluid Temperature - Ambient Temperature



Pumping Capacity







Model Nomenclature

M R C 300 , ____ , __ , DV

- **300** — Capacity (Watts)
- **C** — Chiller
- **R** — Recirculating
- **DV** — Digital Controller, accuracy ± 0.16°C
  - **DH2** = with RS232 serial communication
  - **DH4** = with RS485 serial communication
- **HT** = Heating Option

Notes

1. Use distilled water as coolant for control temperatures above 5°C.
2. To prevent freezing, use coolant with 70% distilled water and 30% glycol mix for control temperatures at or below 5°C.
3. Unit comes with a 115 VAC North American cord and a 230 VAC European cord.

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