

Description

The Merlin Recirculating Chiller is designed to provide a continuous supply of cooling fluid at a constant temperature and volume. The unit consists of an air-cooled refrigeration system, plate heat exchanger, recirculating pump, polyethylene reservoir, and a microprocessor temperature controller.

Throughout the manual, you will be asked to consult the unit's serial number label for specific information. The label is located on the rear of the unit.

Specifications

	M-25	M-33	M-75	M-100	M-150
Temperature Range^{1,2}	+5°C to +35°C				
Temperature Stability^{1,3,4}	±0.1°C		±0.15°C		
Reservoir Volume					
<i>Gallons</i>	0.5				
<i>Liters</i>	1.9				
Refrigerant⁵	R134a			R404a	
Cooling Capacity (Watts)^{1,4}	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-top: 10px;"> <p>A = M-75 60Hz B = M-75 50Hz C = M-33 60Hz D = M-33 50Hz E = M-25 60 Hz F = M-25 50Hz</p> </div> <div style="margin-top: 10px;"> <p>A = M-150 60Hz B = M-150 50Hz C = M-100 60Hz, 50Hz</p> </div> </div>				

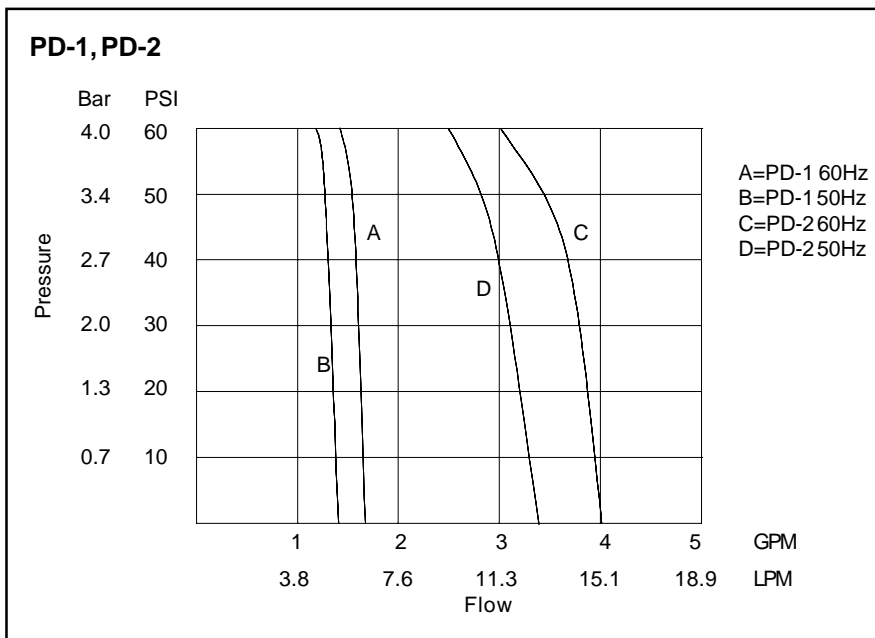
1. Specifications subject to change.
2. Modified temperature ranges to either -15°C or to +90°C are available.
3. At the chiller. Display resolution 1.0°C. 0.1°C display resolution is available using the controller's Setup/Tuning Loop, see page 20.
4. Circulating water at 20°C ambient. Cooling capacity will vary depending on fluid temperature, ambient temperature, and cooling fluid.
5. Standard temperature range units.

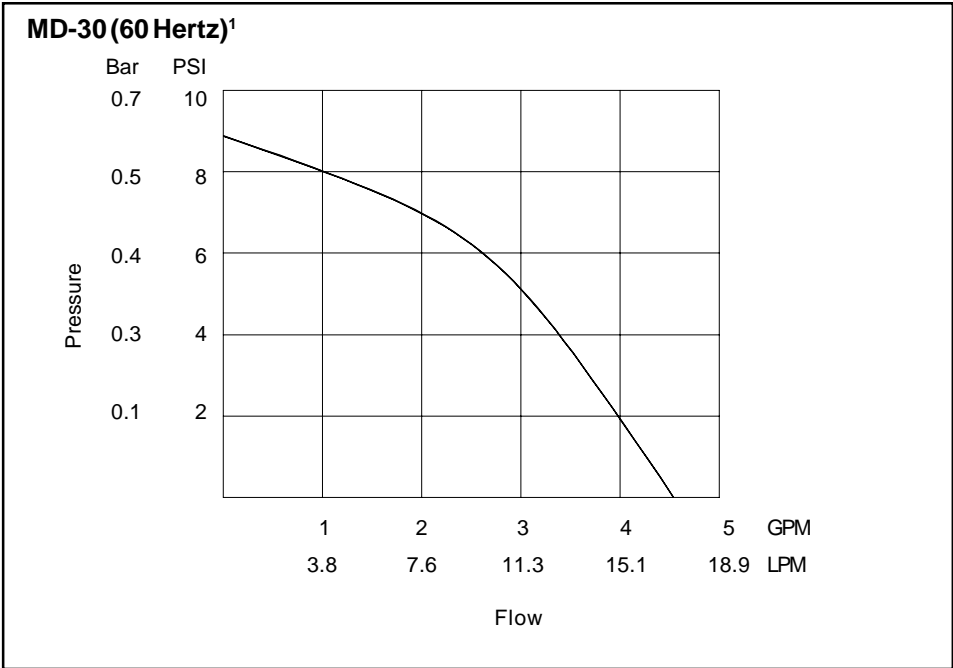
Pump Options

Standard temperature range units		
Unit	Standard	Optional
M-25	MD-30 or PD-1	None
M-33	MD-30 or PD-1	PD-2
M-75	PD-1	PD-2
M-100	PD-2	CP-55
M-150	PD-2	CP-55

High/Low temperature range units		
Unit	Standard	Optional
M-25	PD-1	None
M-33	PD-1	PD-2
M-75	PD-2	None
M-100	PD-2	CP-55
M-150	PD-2	CP-55

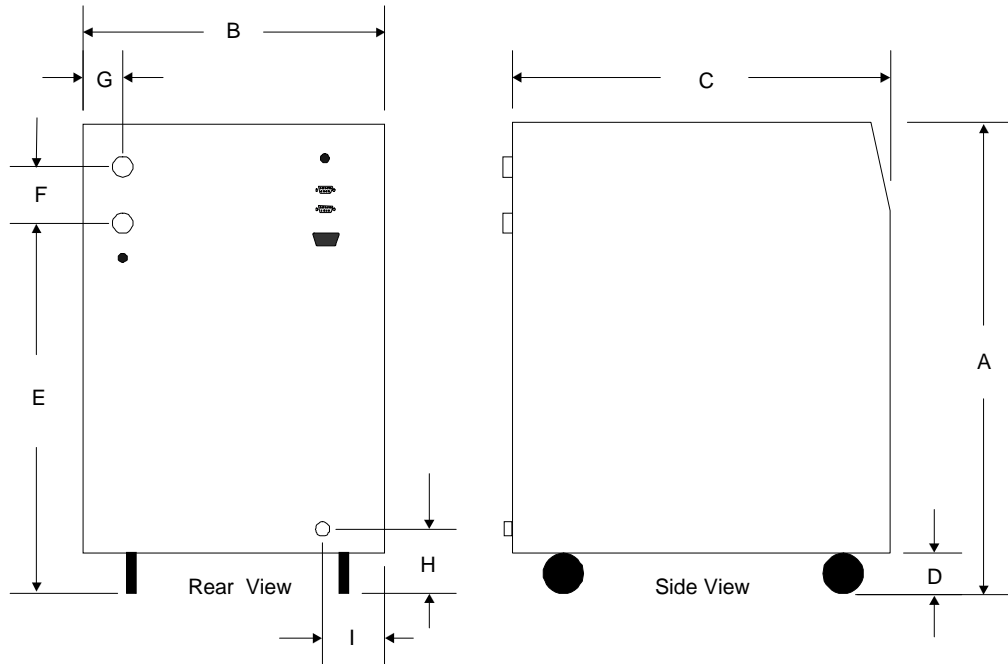
Pump Capacity





1. The MD-30 is not available for 50 Hertz units.

Unit Dimensions



Unit Dimensions	M-25	M-33	M-75	M-100	M-150
Dimension A ¹	23 7/8	23 7/8	26 5/8	30 1/4	30 1/4
Dimension B ¹	12 5/8	12 5/8	16 1/4	21 1/4	21 1/4
Dimension C ¹	20 1/8	20 1/8	23 3/8	28 5/8	28 5/8
Dimension D ²	2	2	2	3	3
Dimension E ³	18 7/8	18 7/8	21 1/8	24 3/4	24 3/4
Dimension F ⁴	3	3	3	3	3
Dimension G ⁵	3/4	3/4	2	1 1/2	1 1/2
Dimension H ⁶	4	4	3	7 3/4	7 3/4
Dimension I ⁷	4 1/4	4 1/4	3 1/2	5	5
Crate Dimensions (D x W x H) ⁸	26x18 1/2x36	26x18 1/2x36	29 1/4x22 1/4x39	35 1/4x27x42	35 1/4x27x42
Shipping Weight ⁹	150	150	200	290	290
Air Intake (ft ³ /min) ¹⁰	178	178	385	755	755

1. Dimension A is the height of the unit. Units with CP-55 pumps are 6" higher. The unit width and depth (dimensions B and C) are the case dimensions, add approximately 1/2 inch to include the plumbing connections.
2. Dimension D is the distance from the floor to the bottom of the unit case (height of the casters).
3. Dimension E is the distance from the floor to the center of the outlet connection.
4. Dimension F is the distance between the center of the outlet and inlet connections.
5. Dimension G is the distance from the unit's side to the center of the outlet and inlet connections.
6. Dimension H is the distance from the floor to the center of the drain connection.
7. Dimension I is the distance from the unit's side to the center of the drain connection.
8. Crate dimensions for units with CP-55 pumps are 6 inches higher. All packages tested to ISTA 2B.
9. Shipping weight in pounds, ±10 pounds.
10. Air intake for 60 Hz units.