

# LS Series Chiller, Centrifugal Pump



LS-5M

## Key Specifications

<b>Description</b>	LS Series 1/2 HP Benchtop Chiller, Centrifugal Pump; 9 psi; 14.8 l/min
<b>Display</b>	LED
<b>Connectivity</b>	Optional: RS232
<b>Working Temperature Range °C</b>	-20° to 40°
<b>Temperature Stability °C</b>	±0.1°
<b>Temperature Calibration Capability</b>	1-point
<b>Pump Type</b>	Centrifugal

## Key Features

### Features

- Optimized for high performance at low temperatures
- Capable of cooling multiple rotary evaporators
- WhisperCool® Environmental Control System
- Large, easy to read LED display
- Space-saving design
- Cooling at ambient temperatures as high as 30°C

- Low flow shutoff and alarm, high and low temperature alarms
- Simple setup, operation, and maintenance
- Centrifugal or turbine pump
- Fluid level indicator
- RS232 communication and external water filter optional

## Common Specifications

<b>Working Temperature Range °F</b>	-4° to 104°
<b>Working Temperature Range °C</b>	-20° to 40°
<b>Reservoir Capacity (gallons)</b>	0.7
<b>Reservoir Capacity (liters)</b>	2.65
<b>Reservoir Cover</b>	Screw-on Cap
<b>Cleanable Air Filter</b>	Yes
<b>Temperature Stability °F</b>	±0.2°
<b>Temperature Stability °C</b>	±0.1°
<b>Display</b>	LED
<b>Pump Type</b>	Centrifugal
<b>Pump Speed</b>	Constant, Single Speed
<b>Process Connections</b>	1/2" (F) NPT
<b>Over-Temperature Protection / Failsafe Heater Control</b>	Yes
<b>Reservoir Liquid Level Indicator</b>	Yes
<b>WhisperCool Environmental Control Technology</b>	Yes
<b>Cool Command Refrigeration Technology</b>	Yes
<b>Reservoir Drain</b>	Yes
<b>Maximum Ambient Temperature °F</b>	95°
<b>Maximum Ambient Temperature °C</b>	35°
<b>Overall Dimensions (L x W x H) (inches)</b>	23.9 x 10 x 19 in
<b>Overall Dimensions (L x W x H) (cm)</b>	60.7 x 25.4 x 48.3 cm
<b>Compressor Size (HP)</b>	1/2
<b>Refrigerant</b>	R452A
<b>Shipping Weight (pounds)</b>	102.0
<b>Shipping Weight (kilograms)</b>	46.3
<b>Catalog Page Number</b>	98-99

## 60 Hz Only

<b>Part Number</b>	LS51M11A110C
<b>Maximum Pressure (psi)</b>	9.0
<b>Maximum Pressure (bar)</b>	0.62
<b>Maximum Pressure Flow Rate (gpm)</b>	3.90
<b>Maximum Pressure Flow Rate (l/min)</b>	14.8
<b>Cooling Capacity @ -20°C (W)</b>	230

<b>Cooling Capacity @ -10°C (W)</b>	435
<b>Cooling Capacity @ -5°C (W)</b>	510
<b>Cooling Capacity @ 0°C (W)</b>	680
<b>Cooling Capacity @ +10°C (W)</b>	1030
<b>Cooling Capacity @ +20°C (W)</b>	1160
<b>Cooling Capacity @ +30°C (W)</b>	1380
<b>Cooling Capacity @ +40°C (W)</b>	1550
<b>Included Hardware</b>	Two sets of Inlet/Outlet Adapters: ½ inch male NPT, 5/8 inch male NPT
<b>Electrical Requirements (VAC/Hz/Ph/A)</b>	120/60/1/12
<b>Regulatory Approvals</b>	TUV

## 50 Hz Only

<b>Part Number</b>	LS52M21A110E
<b>Maximum Pressure (psi)</b>	5.5
<b>Maximum Pressure (bar)</b>	0.40
<b>Maximum Pressure Flow Rate (gpm)</b>	3.40
<b>Maximum Pressure Flow Rate (l/min)</b>	12.9
<b>Cooling Capacity @ -20°C (W)</b>	230
<b>Cooling Capacity @ -10°C (W)</b>	435
<b>Cooling Capacity @ -5°C (W)</b>	510
<b>Cooling Capacity @ 0°C (W)</b>	680
<b>Cooling Capacity @ +10°C (W)</b>	1030
<b>Cooling Capacity @ +20°C (W)</b>	1160
<b>Cooling Capacity @ +30°C (W)</b>	1380
<b>Cooling Capacity @ +40°C (W)</b>	1545
<b>Included Hardware</b>	Two sets of Inlet/Outlet Adapters: ½ inch male NPT, 5/8 inch male NPT
<b>Electrical Requirements (VAC/Hz/Ph/A)</b>	240/50/1/6
<b>Regulatory Approvals</b>	CE



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