

Section 2 General Information

Description

The Thermo Scientific NESLAB ThermoFlex™ recirculating chiller is designed to provide a continuous supply of fluid at a constant temperature and volume. The unit consists of an air-cooled or water-cooled refrigeration system, heat exchanger, recirculating pump, reservoir, and a microprocessor controller.

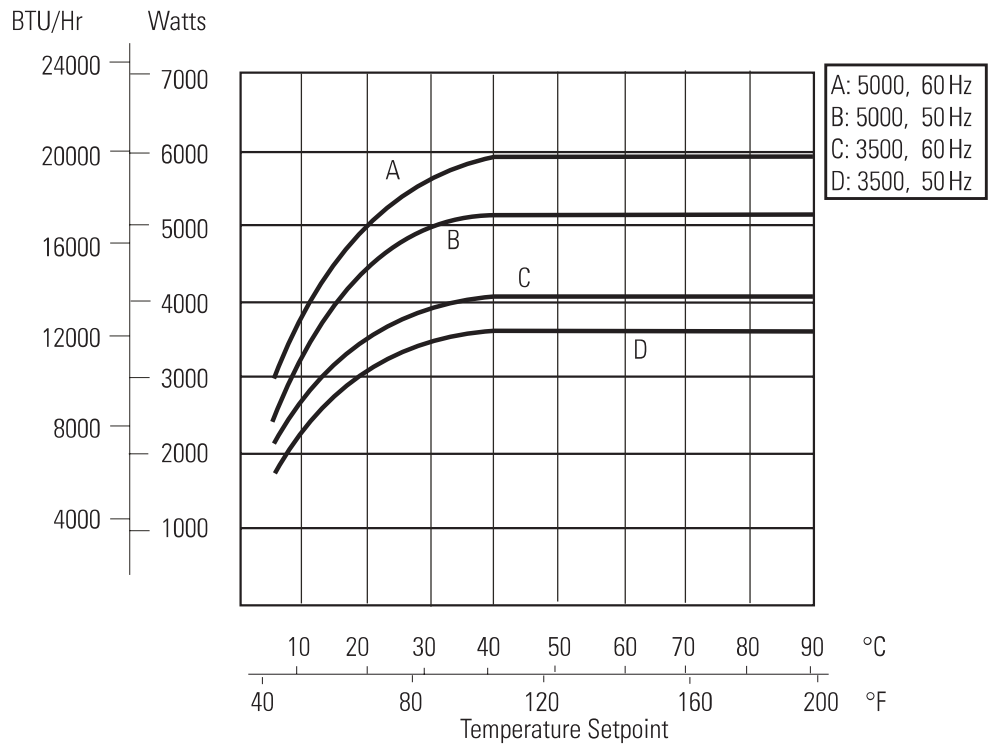
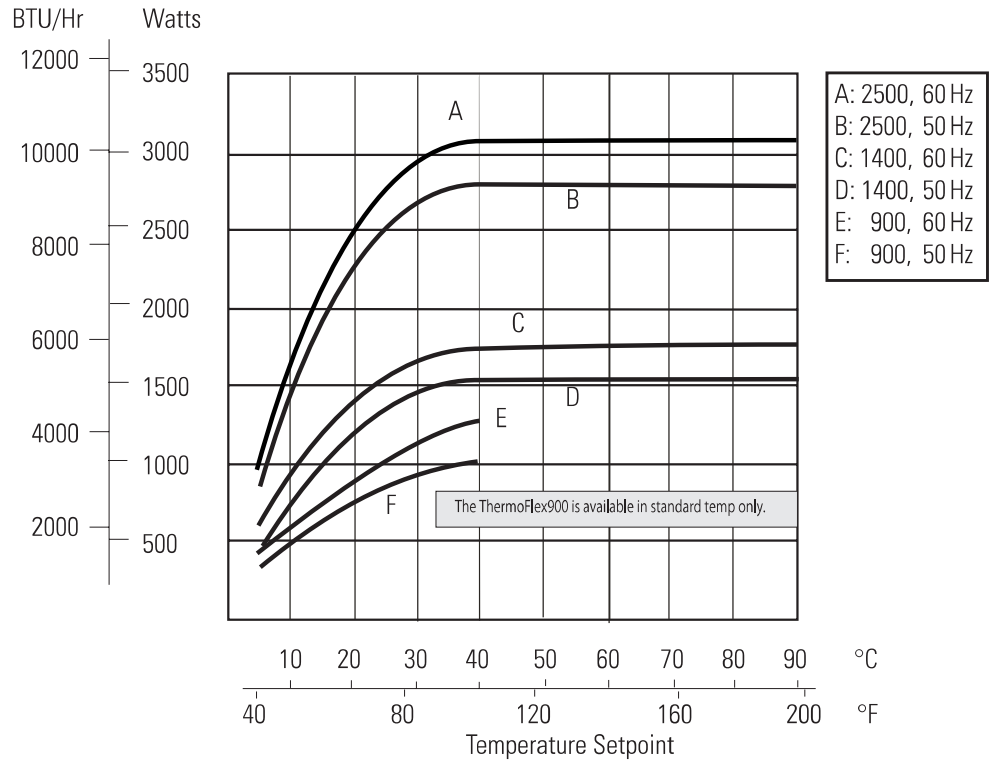
Specifications

	ThermoFlex900	ThermoFlex1400	ThermoFlex2500
Standard Unit Process Fluid Temperature/Setpoint Range	+5°C to +40°C +41°F to +104°F	+5°C to +40°C +41°F to +104°F	+5°C to +40°C +41°F to +104°F
High-Temperature Unit Process Fluid Temperature/Setpoint Range	Not Available Not Available	+5°C to +90°C +41°F to +194°F	+5°C to +90°C +41°F to +194°F
Ambient Temperature Range All Units	+ 10°C to +40°C + 50°F to +104°F	+10°C to +40°C +50°F to +104°F	+10°C to +40°C +50°F to +104°F
Temperature Stability	±0.1°C	±0.1°C	±0.1°C
Cooling Capacity at 20°C 60 Hz 50 Hz	900 W (3074 BTU) 750 W (2561 BTU)	1400 W (4781 BTU) 1170 W (3996 BTU)	2500 W (8538 BTU)* 2200 W (7513 BTU)
*To meet this specification, the ThermoFlex2500 air-cooled units require the fan to be operating in the high-speed mode, see Section 3.			
Heater Size 208V/230V	Not Available	1.0kW/1.2kW or 2.3kW/2.8kW	2.3kW/2.8kW
Refrigerant	R134A	R134A	R134A
Reservoir Volume Gallons Liters	1.9 7.2	1.9 7.2	1.9 7.2
Footprint or Dimensions (H x W x D) Inches Centimeters	27.3 x 14.2 x 24.6 69.2 x 36.0 x 62.4	27.3 x 14.2 x 24.6 69.2 x 36.0 x 62.4	29.0 x 17.2 x 26.5 73.6 x 43.6 x 67.3
Unit Weight P2 Pump (empty) lb kg	130.5 59.2	130.5 59.2	175.5 79.6
Pumping Capacity			
P1 - Positive Displacement 60 Hz 50 Hz		2.1 gpm @ 60 psig (7.9 lpm @ 4.1 bar) 1.7 gpm @ 60 psig (6.4 lpm @ 4.1 bar)	
P2 - Positive Displacement 60 Hz 50 Hz		4.0 gpm @ 60 psig (15.1 lpm @ 4.1 bar) 3.3 gpm @ 60 psig (12.5 lpm @ 4.1 bar)	
T1 - Turbine 60 Hz* 50 Hz*		3.5 gpm @ 60 psig (13.3 lpm @ 4.1 bar) 2.5 gpm @ 60 psig (9.5 lpm @ 4.1 bar)	

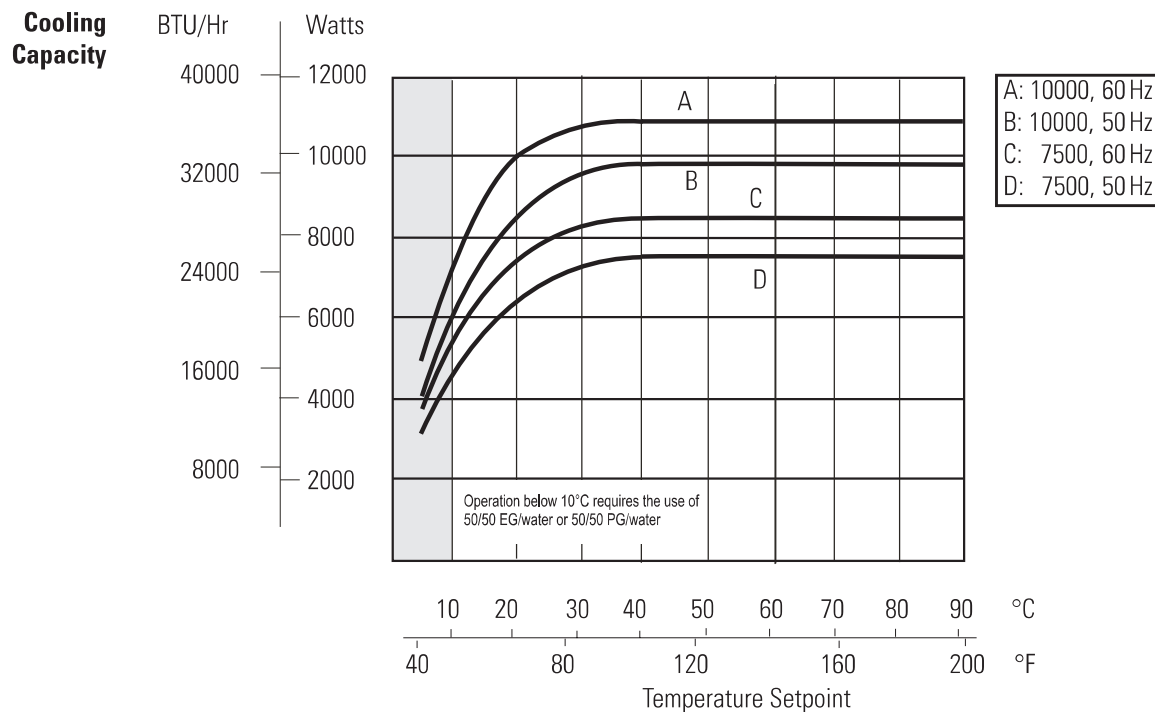
* Pumping capacity pressure values for turbine pumps are differential pressures between the inlet and the outlet of the unit.

- Cooling capacity based on P2 pumps with no backpressure. Heat input from the pump will result in a reduction in cooling capacity. The cooling capacity reduction will vary based on the pump chosen as well as pump backpressure and flow.
- Specifications obtained at sea level using water as the recirculating fluid, at a 20°C process setpoint, 25°C ambient condition, at nominal operating voltage. Other fluids, fluid temperatures, ambient temperatures, altitude or operating voltages will affect performance. See Section 3.
- Additional dimensions are at the end of this section, add 1/8" (3 mm) to height for SEMI units.
- Add 5 pounds (2 kilograms) for global voltage units.
- Thermo Fisher Scientific reserves the right to change specifications without notice.

Cooling Capacity



- Specifications obtained at sea level using water as the recirculating fluid, at a 20°C process setpoint, 25°C ambient condition, at nominal operating voltage, on units with P2 pumps with no back pressure. Other fluids, fluid temperatures, ambient temperatures, altitude, operating voltages or pumps will affect performance. See Section 3.
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- Units require the use of 50/50 EG/water or 50/50 PG/water below 10°C process temperature to prevent freezing/glazing of the plate exchanger.
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