Temperature Range
-73°C to +175°C
Control Tolerance
±0.5°C (±0.2°C Typical) (Short-term variations measured at the control sensor after stabilization)
Uniformity
±1.0°C (Variations throughout the chamber after stabilization)
Heat Up Rate of Change*
5°C/minute typical
Cool Down Rate of Change*
2.8°C/minute from +85°C to -40°C (standard 60 Hz models)
2.1°C/minute from +85°C to -40°C (115A-EX 50 Hz export models)

Cool Down Transition Times*

	End Temp					
Start Temp	**+23°C**	**0°C**	**-40°C**	**-55°C**	**-65°C**	**-73°C**
+23°C	-----	5 min	20 min	30 min	40 min	Ultimate
+85°C	16 min	25 min	45 min	57 min	69 min	Ultimate

Rate Of Change
To calculate rate of change for a particular condition, take the difference between the Start Temp and End Temp and divide by the Transition Time.
Cool Down Example: From +85°C to -40°C = 125°C / 45 min = 2.8°C/min.

***Note:** Transition times are measured after a 1 hour soak at the respective start temperature with an empty chamber, as indicated on the temperature controller, 23°C ambient. Measured with setpoint beyond the start and end temperatures. Does not include the effect of proportional band when approaching setpoint. Measured at nominal line voltage of 120V, 60 Hz. Performance is reduced on 115A-EX 50 Hz export versions.

Live Load Capacity				
+23°C	**0°C**	**-40°C**	**-55°C**	**-65°C**
300 Watts	255 Watts	160 Watts	110 Watts	80 Watts

Refrigeration and Heating System	
High Stage Refrigerant	R-404A (Dupont HP-62)
Low Stage Refrigerant	R-508B (Dupont SUVA-95)

Compressors	1/2 HP x 1/3 HP Tecumseh hermetic compressors in a cascade configuration.
Condenser	Air Cooled
Heat of Rejection	4,000 BTUH (maximum rated chamber load at maximum cooling rate from high temperature soak)
Heater Power	600 Watts
Air Flow	85 CFM

Instrumentation	
Temperature Controller	**Watlow F4T Touch Screen Controller** with RS-232, Ethernet interface, 4.3" color graphic touch screen. OR... **Watlow F4 Controller** with RS-232 interface, LED readout of temperature, LCD display of other parameters.
Limit Controller	Independent high and low temperature limits. Triggers an audible alarm and shuts down the chamber.

Power Requirements	
Input Voltage	120 V nominal (110 to 126 VAC), 60 Hz, 1 PH Max Current Draw 15 A, Recommended Minimum Service 20 A Model 115-EX export version available with 230V, 50Hz, 8A input. Performance is reduced by 17% with 50 Hz input power.
Power Cord and Plug	6' Power cord supplied with a molded NEMA 5-20P plug. Plugs into a standard NEMA 5-20R receptacle. Use of an extension cord is not recommended. Model 115A-EX export version is supplied with power cord for the destination country.

NEMA 5-20P Plug, NEMA 5-20P

Physical Characteristics and Safety	
Inside Dimensions	16" W x 12" H x 14" D (1.55 Cubic feet) 406 mm W x 305 mm H x 353 mm D (44 liters)
Outside Dimensions	**Benchtop Model 115A-B** 24" W x 44" H x 26" D (nominal) 610 mm W x 1118 mm H x 660 mm D **Floor Model 115A-F** 24" W x 61" H x 26" D (nominal) 610 mm W x 1549 mm H x 660 mm D

Minimum Installed Clearance	6" from the left and right side 12" from the rear
Window Viewing Area	8" W x 6" H
Access Ports	3" (2.83" inside diameter) supplied on all Model 115A chambers. Port on left and right side (two total) Supplied with silicone foam port plugs
Weight	**Benchtop Model 115A-B** Chamber Weight: 260 pounds Shipping Weight: 340 pounds **Floor Model 115A-F** Chamber Weight: 300 pounds Shipping Weight: 381 pounds
Sound Level	52 dBA in cooling mode (A-weighted, measured 36" from the front surface, 63" from the floor, in a free-standing environment)
CE Mark	Export version, Model 115A-EX is CE Marked

NOTE: Performance is typical and based on operation at 23°C (73°F) ambient and nominal input voltage. Designed for use in a normal conditioned laboratory. Operation at higher ambient temperatures may result in decreased cooling performance. Additional ports and shelves will also affect performance. Operation above 30°C (85°F) or below 16°C (60°F) ambient is not recommended.
Due to continuous product development, specifications are subject to change without notice.