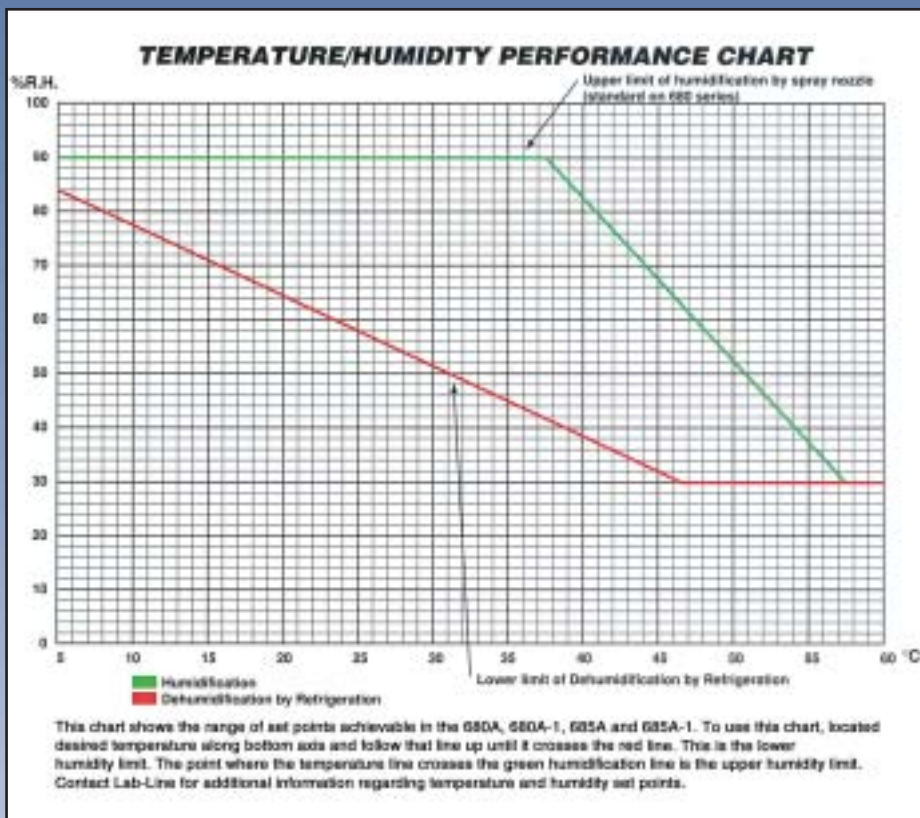# Benchtop Environ-Cab® Humidity

Model 680

Maintain Control Without Losing Space!

- Compact size conserves valuable lab space
- Available options include refrigeration, programmable control, chart recorders and more
- Ideal for drug stability and shelf life tests

Product Description

- Stainless steel interior with rounded corners for easy cleaning.
- Precise microprocessor-based P.I.D. control.
- CFC-free foam insulation is environmentally safe.
- Two sizes: 6.2 cu. ft. or 11.8 cu. ft.
- Temperature control and uniformity of ±0.5°C.
- Humidity control ±5%.
- Color-coded digital displays for visual ease.
- Inner glass door for better viewing and heated outer door to reduce condensation.
- Humidification system including spray nozzles and deionization cartridge assembly to provide controlled humidity.
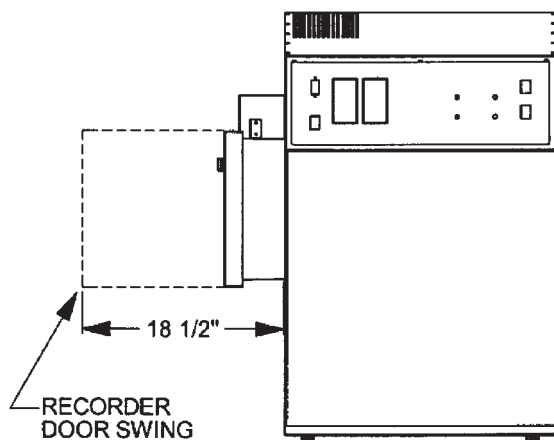
TEMPERATURE/HUMIDITY PERFORMANCE CHART

Upper limit of humidification by spray nozzle (standard on 680 series)

Lower limit of Dehumidification by Refrigeration

Humidification
Dehumidification by Refrigeration

This chart shows the range of set points achievable in the 680A, 680A-1, 685A and 685A-1. To use this chart, located desired temperature along bottom axis and follow that line up until it crosses the red line. This is the lower humidity limit. The point where the temperature line crosses the green humidification line is the upper humidity limit. Contact Lab-Line for additional information regarding temperature and humidity set points.

Models recommended for stability testing of drugs and pharmaceuticals:

Test: 25°C/60% RH; 30°C/60% RH	Test: 40°C/75% RH
680AR26	680R26
680-1AR26	680-1R26
685AR26	685R26
685-1AR26	685-1R26

18 1/2"

RECORDER
DOOR SWING

FRONT VIEW

PRODUCT SPECIFICATIONS

Model #	Chamber Volume cu. ft. (l)	Temperature Stability and Uniformity °C	Humidity Stability	Number of Shelves	Shelf Area (ea.) sq. ft. (sq. cm.)	Chamber Dimensions Inches (cm) W	H	D	Exterior Dimensions Inches (cm) W	H	D	Shipping Weight Lb. (kg)
680	6.2 (176)	±0.5	±5%	2	2.25 (2090)	22 (56)	22 (56)	22 (56)	29.5 (75)	39 (99)	27.5 (70)	225 (102)
680-1	6.2 (176)	±0.5	±5%	2	2.25 (2090)	22 (56)	22 (56)	22 (56)	29.5 (75)	39 (99)	27.5 (70)	225 (102)
685	11.8 (334)	±0.5	±5%	3	2.8 (2685)	30 (76)	34 (86)	20 (51)	37.5 (95)	52 (132)	27.5 (70)	340 (155)
685-1	11.8 (334)	±0.5	±5%	3	2.8 (2685)	30 (76)	34 (86)	20 (51)	37.5 (95)	52 (132)	27.5 (70)	340 (155)

ORDERING INFORMATION

Model #	Volts	Electrical Hz	Watts	Operating Temp Range °C
680	120	60	800	Ambient +10° to 60°C
680-1	240	50	800	Ambient +10° to 60°C
685[1]	120	60	800	Ambient +10° to 60°C
685-1[1]	240	50	800	Ambient +10° to 60°C
Chamber with Refrigeration System				
680A	120	60	1400	5°C to 60°C
680-1A	240	50	1400	5°C to 60°C
685A	120	60	1400	5°C to 60°C
685-1A	240	50	1400	5°C to 60°C

[1] ETL

US List Price
For a quotation, please refer to the Environmental Chamber Questionnaire following the Chamber section on page 48.

ACCESSORIES

Model #	Description
A	Refrigeration System—Temperature range 5°C to 60°C. This system, which includes a 1/3 hp condensing unit and uses R-22 refrigerant, is necessary when working at or below room temperature and can be switched off for higher temperature operation. An additional coil in the refrigeration system maintains humidity at or below ambient conditions.
F	Fluorescent Light Package—A lighting package consisting of four 14 watt fluorescent bulbs and timer can be mounted under a support shelf in the top of the chamber. (Note: When the lighting option is ordered, the number of shelves provided will be reduced by one.)
M	Programmable Microprocessor—A 24 step programmable microprocessor for temperature is available; capable of four programs containing six steps each.
P	Access port, 2"

Chart Recorder—For creating a permanent record of temperature and/or humidity a one or two pen chart recorder can be provided.
The chart recorder is a 10", 7 day recorder.

R26	Chart Recorder—2-pen, temperature and humidity, 120/240V, 50/60 Hz
R27	Chart Recorder—1-pen, temperature, 120/240V 50/60 Hz
R31	Digital recorder with RS485 capabilities, 1-pen temperature.
R32	Digital recorder with RS485, 2-pen temperature and humidity
C1	RS232 Computer Port—temperature only
C2	RS232 Computer Port—temperature and humidity
680-6	Extra Shelf—models 680 and 680-1
685-6	Extra Shelf—models 685 and 685-1
585-036-00	Replacement deionization cartridge (1 supplied)

All accessories except shelves and replacement cartridges must be factory installed.

Reach-In Chambers

Reach-In for Easy Access!

- **Microprocessor-based main temperature controller**
- **Temperature control of ±0.5°C**
- **Available in two sizes**
- **Humidity uniformity ±5%**

Standard Features

- Interior fluorescent work light
- 1 - 2" access port
- 1 - Duplex outlet
- RS232 Outputs
- 12.5" square viewing window
- Locking casters
- "C" - 7 day circular chart recorder

Options Available

- Choose from solid doors for light sensitive applications or glass doors for better viewing
- 24-step programmable controller capable of 4 programs containing 6 steps each
- Uniformity packages for validating equipment
- IQ/OQ procedures
- Digital recorder with RS485

Operation

- Available with two temperature ranges: Ambient +10°C to 60°C or 0°C to 60°C.
- All models have a temperature control of ±0.5°C.
- Humidity dependent on temperature, (refer to chart on next page.)
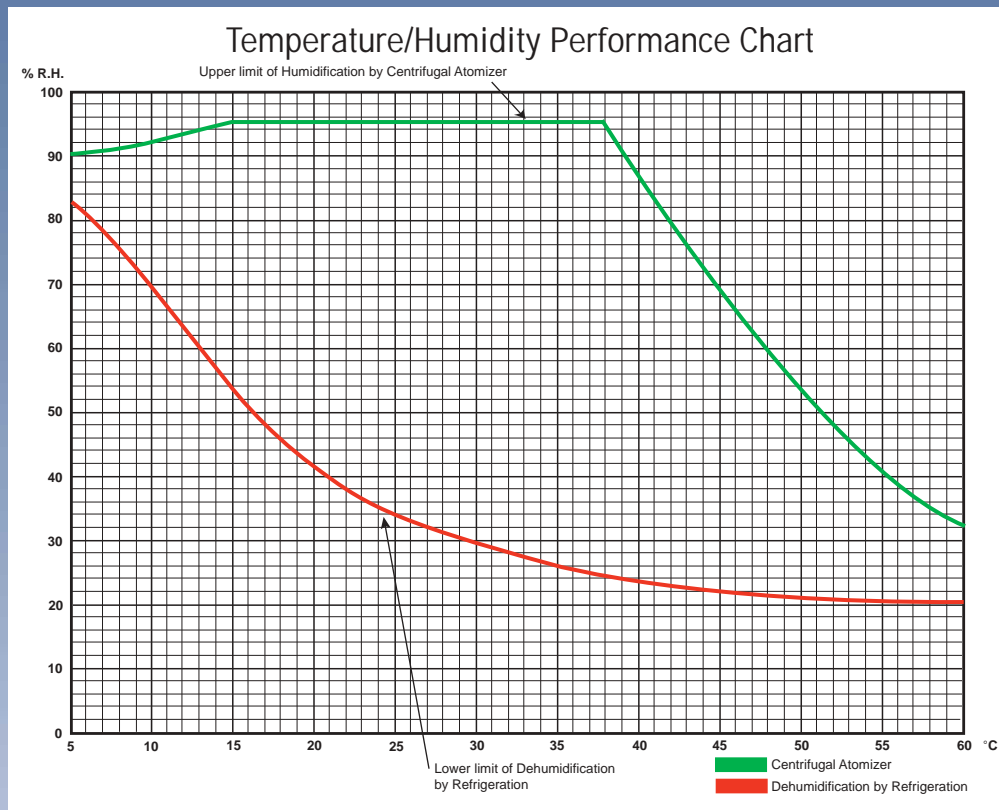
Applications

- Versatile chambers designed to provide control and uniformity across a wide variety of applications including: drug stability testing, genetic studies, shelf life testing, chromatography tests, tissue culture studies, growth chamber studies and more.

Product Description

- Precise digital temperature set point with LED readout.
- Two sizes: 19 cu. ft. and 29 cu. ft.
- Zero-switching, microprocessor-based main temperature controller with multi-range, auto tuning PID control for fast control response with minimal overshooting.
- Sturdy 20 gauge galvanized steel exterior with grey powder coated finish.
- Six adjustable heavy-gauge perforated stainless steel shelves come as standard equipment, to facilitate various sample sizes.
- Environmentally safe, CFC-free foam insulation and refrigerant.
- Corrosion resistant stainless steel interior.
- Key lock standard for sample security.
- Heated door eliminates condensation.

Performance Chart

This chart shows the temperature/humidity set points which can be achieved by chambers with temperature and humidity control. To use the chart, locate the desired temperature set point along the horizontal axis, and the desired humidity set point along the vertical axis. Follow the line of the temperature set point upward until it intersects the humidity set point line. The area between the red and green lines indicates temperature and humidity parameters that are attainable by the reach-in chambers.

Temperature/Humidity Performance Chart

% R.H.

Upper limit of Humidification by Centrifugal Atomizer

Lower limit of Dehumidification by Refrigeration

Centrifugal Atomizer

Dehumidification by Refrigeration

ORDERING INFORMATION

(120v/60hz Models)

Model #	Temperature Control Only		US List Price
19 Cubic Foot			
E20060	19 cu. ft. 0° - 60°C	Includes refrigeration	
EC20060	19 cu. ft., 0° - 60°C	Includes refrigeration and chart recorder	
E21060	19 cu. ft., Ambient +10°C - 60°C	Heat only	
EC21060	19 cu. ft., Ambient +10° - 60°C	Heat and chart recorder	
Temperature and Humidity Control (See Temperature/Humidity Performance Chart for specific parameters).			
E22560	19 cu. ft., 0° - 60°C with humidity control	Includes refrigeration and humidity control	
EC22560	19 cu. ft., 0° - 60°C with humidity control	Includes refrigeration, humidity control and chart recorder	
E24075	19 cu. ft., Ambient +10° - 60°C, with humidity control	Heat and humidity control	
EC24075	19 cu. ft., Ambient +10° - 60°C, with humidity control	Heat, humidity control and chart recorder	
29 Cubic Foot			
E30060	29 cu. ft., 0° - 60°C	Includes refrigeration	
EC30060	29 cu. ft., 0° - 60°C	Includes refrigeration and chart recorder	
E31060	29 cu. ft., Ambient +10° - 60°C	Heat only	
EC31060	29 cu. ft., Ambient +10° - 60°C	Includes heat and chart recorder	
Temperature and Humidity Control (See Temperature/Humidity Performance Chart for specific parameters).			
E32560	29 cu. ft., 0° - 60°C with humidity control	Includes refrigeration	
EC32560	29 cu. ft., 0° - 60°C with humidity control	Includes refrigeration, humidity control and chart recorder	
E34075	29 cu. ft., Ambient +10° - 60°C, with humidity control	Heat and humidity control	
EC34075	29 cu. ft., Ambient +10° - 60°C, with humidity control	Heat, humidity control and chart recorder	

For a quotation, please refer to the Environmental Chamber Questionnaire following the Chamber section on page 48.

*220/50 Hz and 240V/60 Hz units available. Add -1 to model number for 240V/60 Hz. Add -2 to model number for 220V/50 Hz. Example: E20060-1 would be a 240V/60 Hz unit.
*All models must be hard wired. 240V models - 4 wires: 2 hots, 1 neutral and 1 ground. 120V models - 3 wires: 1 hot, 1 neutral and 1 ground.

Refer to pg. 46 for drawings and dimensions.