

# Environmental Chambers

## 1007 Series

### 1007C/S Temperature Chambers

- ◆ -73°C to +175°C (1007C)
- ◆ -35°C to +175°C (1007S)

### 1007H Temperature/Humidity Chambers

- ◆ -73°C to +175°C
- ◆ Humidity 10% to 95% RH (optional to 5%)
- ◆ Dynamic Capacitive Humidity Sensor
- ◆ Water Recirculation System - No Plumbing Required (optional)

### All Models

- ◆ 7 Cu Ft Workspace
- ◆ Programmable Controller
- ◆ RS-232 Interface, Optional GPIB
- ◆ LabVIEW Drivers
- ◆ High/Low Limit Control and Alarm
- ◆ Non-CFC Refrigeration
- ◆ Viewing Window
- ◆ Low-Maintenance Design
- ◆ Fast Delivery From Stock

## More For Your Money.

### Programmable Controller

Easy to use microprocessor-based controller stores 256 steps in up to 40 programs. Includes an RS-232 interface.



### High/Low Temperature Limit Controller and Alarm

Provides user adjustable protection against excess temperatures.

### Viewing Window

Six-pane window for minimal thermal losses. Model 1007H features a heated inner pane to eliminate fog and condensation during humidity testing.

### Two 4" Access Ports

Lets you attach wires and sensors to your test sample through both the left and right side of the chamber.

### Refrigeration Gauges

Provides refrigeration system status for easy preventive maintenance and service.



### Adjustable Shelf

A heavy-duty stainless steel wire shelf ensures proper airflow around your test sample for uniform temperature distribution.

### Casters

Rugged 3" casters permit easy movement.

### Water Recirculation System (for 1007H)

The optional water recirculation system provides a reliable source of demineralized water for the humidity system, using ordinary tap water. No plumbing required!

### World's Best Chamber Warranty

Only TestEquity offers a 3-year warranty on parts and 1-year warranty on labor at your domestic site. Our nationwide service network is qualified to do the job right. And we always have replacement parts in stock for immediate shipment.



# TESTEQUITY®



1007H shown with optional Water Recirculation System and Circular Chart Recorder.

### Available Options

- ◆ Water Recirculation System (for 1007H)
- ◆ Circular Chart Recorder
- ◆ Analog Retransmit
- ◆ GPIB Interface
- ◆ Additional Shelves
- ◆ Additional Ports
- ◆ Event Relays
- ◆ GN<sub>2</sub> Purge for Low Humidity

### Easy to Use Programmable Controller

Up to 256 steps can be programmed into as many as 40 profiles. The context sensitive information key and guided steps make profile programming fast and easy. A four-line backlit LCD displays programming, setup, operating and help information. A large LED readout indicates the actual chamber conditions with 0.1° resolution. Internal logic provides refrigeration compressor control for responsive and reliable performance. Event outputs can be used to control remote devices. RS-232 communications is also included. Analog retransmit outputs and GPIB interface are available as options.

### High/Low Limit Controller & Alarm

Provides independent protection against excess temperatures. Both high and low limits can be set. The limit controller will shut down the chamber and trigger the audible alarm in the event of an out of limit condition. A set of uncommitted contacts provides a safety power interlock for your test sample.

### Water Recirculation System (for 1007H)

The optional water recirculation system provides a reliable source of demineralized water for the humidity system, using ordinary tap or pre-filtered water. Condensate from the chamber is returned back to the water tank. The recirculation pump operates only when needed to fill the chamber's humidifier to the correct level. Perfect for installations where a water line and drain are not available.

### Reliability and Safety That's Designed In

**Refrigeration System.** Non-CFC refrigerants are used. Expansion valves provide optimum performance throughout the operating range. Pressure regulators keep the operating pressures within safe limits regardless of load conditions. Liquid injection ensures cool compressor operation during high-temperature pull down for long life. Sequential starting of each compressor reduces the current demand on start-up. Compressors are protected by high/low pressure switches. Care has been taken to use a minimum number of fittings, joints and welds to reduce the possibility of refrigerant leaks.

**Humidity Vapor Generator System (1007H).** The stainless-steel assembly is fully protected against low-water and over-temperature conditions. Unlike "atomizing" systems, the heated vapor generator has no pump to fail or orifice to clog.

**Electrical System.** All electrical control components are UL approved. Each branch circuit is individually fused. A main power disconnect switch is provided on the front panel. The nichrome air-heater has a low watt-density and even heat distribution for reliable performance and fast response. A fusible link provides fail-safe protection against thermal runaways, in addition to the microprocessor-based high/low limit controller.

**Easy Maintenance.** The side and rear panels are removable to permit complete access to the refrigeration and humidity system for ease of service and preventive maintenance.

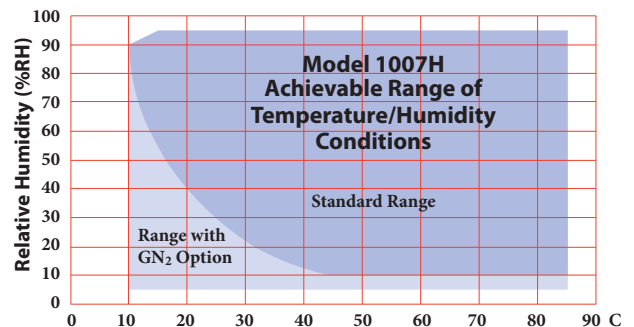
### General Specifications

<b>Temperature Range</b>	<b>1007S</b>	-35°C to +175°C			
	<b>1007C/H</b>	-73°C to +175°C			
<b>Control Tolerance</b>	±0.5°C max., ±0.2°C typical				
<b>Uniformity</b>	±0.5°C				
<b>Heat Up Rate</b>	6°C to 7°C/min (average, empty chamber)				
<b>Cool Down Rate</b> (average from +85°C, empty chamber, uncontrolled humidity)		<b>0°C</b>	<b>-20°C</b>	<b>-40°C</b>	<b>-55°C</b>
<b>1007S</b>	8.5°C/min	5.8°C/min	-----	-----	
<b>1007C/H</b>	4°C/min	3.8°C/min	3.4°C/min	3°C/min	
<b>Live Load Capacity</b>		<b>+23°C</b>	<b>0°C</b>	<b>-20°C</b>	<b>-55°C</b>
<b>1007S</b>	1400 W	1000 W	625 W	-----	
<b>1007C/H</b>	1000 W	800 W	600 W	400 W	
<b>Inside Dimensions</b>	24" W x 21" H x 24" D (7 cubic feet)				
<b>Outside Dimensions</b>	34" W x 67.5" H x 54" D (nominal)				
	Door latch adds 3" to width on right side (may be removed to permit move-in through a 36" doorway). Circulator motor housing adds 6" to height.				
<b>Access Ports</b>	4" Port on left and right side (two total)				
<b>Weight</b>	<b>1007S:</b> 785 lbs.	<b>1007C:</b> 850 lbs.	<b>1007H:</b> 900 lbs		
<b>Input Power</b> (60 Hz)		<b>Voltage</b>	<b>Phase</b>	<b>Service</b>	
	<b>1007S</b>	208/230 V	1 PH	30 A	
	<b>1007C/H</b>	208 or 230 V	1 PH	30 A	
		208 or 230 V	3 PH	25 A	

Performance is typical of operation at 23°C (73°F) ambient and nominal input voltage with an empty chamber. Designed for use in a normal conditioned laboratory. Operation at higher ambient temperatures will result in decreased cooling performance. Operation above 30°C (85°F) or below 16°C (60°F) ambient is not recommended.

### Humidity Specifications (1007H)

<b>Standard Range</b>	10% to 95% RH (Limited by a 6°C dewpoint and maximum dry bulb of +85°C)
<b>Extended Range</b>	5% to 95% RH (With optional GN <sub>2</sub> Purge)
<b>Control Tolerance</b>	±3% RH max., ±1% RH typical
<b>Sensor</b>	Dynamic capacitive type (No wet wicks required)



### Also Available for Rent

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