



Advanced Test Equipment Rentals

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THERMOTRON®

S-3800 SERIES TEST CHAMBERS

A Tradition in Testing Excellence.

THERMOTRON®

The international standard for high quality test equipment.



Powerful Yet Versatile Chambers

Thermotron's S-3800 Series Chambers deliver the quality and accuracy you expect from the leader in test equipment. Featuring the 3800 touch sensitive programmer controller, wide temperature and humidity ranges and multiple chamber sizes to choose from, the S-3800 is the intelligent choice for simulated environment testing.

Smaller, hermetically sealed compressors provide moderate temperature change rates while consuming less power than comparable chambers. Advanced features such as an electronic humidity sensor and optional product temperature control help reduce maintenance and test time.

3800 Touch Sensitive Programmer Controller

The new 3800 programmer controller has been designed and refined specifically for environmental test chamber applications. The interactive touch-sensitive keypad and informative four line display makes program entry and monitoring easy. Built-in ethernet connection allows easy computer interface for PC control and recording test data, while the web server features enables remote access.



S-3800 SERIES Chambers

Features and Benefits



S-3800 Chamber Options

- 4-Channel Data Logger.
- Additional Access Ports.
- Additional Auxiliary Event Relays.
- Thermotrak II™ and Directlink Software.
- Cable Notch In Door Frame For Easy Access Wire Routing.
- CE Compliant.
- Chart Recorder.
- Dry Air Purge System.
- Glove Ports.
- GPIB, RS-485 or RS-232 Computer Interface.
- Humidity Water Purification and Recirculation System.
- Liquid Nitrogen Or Co² Boost/ Back-Up Cooling System.
- Low Humidity System.
- Product Temperature Control Software.
- Shelving.
- Special Voltage Configurations.
- Therm Alarm™.
- Water-Cooled Condenser.

Specifications subject to change.

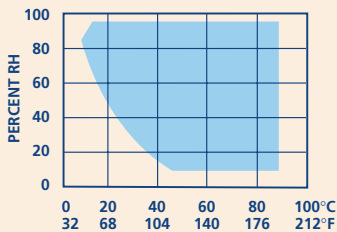
The addition of accessories may impact performance.

Certain options may increase move-in dimensions. Contact Thermotron if dimensions are critical.

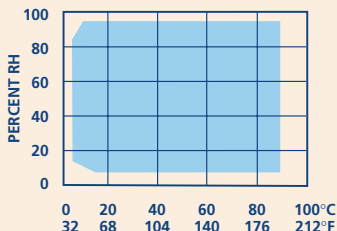
Special order options are available, please check with Thermotron.

SM-3800 SERIES HUMIDITY RANGE

ULTRA LOW TEMPERATURE / HUMIDITY CHAMBER



WITH OPTIONAL LOW HUMIDITY PACKAGE



S-3800 SERIES TEMPERATURE CHAMBER SPECIFICATIONS

Model	S-4 3800	S-8 3800	S-16 3800	S-27 3800	S-32 3800
Temperature Range	All Models -70° to +180°C (-94° to +356°F)				
Cooling Change Rate — Min					
+180° to -65°C (+356° to -85°F)	50	75	75	95	70
+71° to -65°C (+160° to -85°F)	35	52	55	70	48
+85° to -40°C (+185° to -40°F)	24	36	38	50	30
Heating Change Rate — Min					
-65° to +180°C (-85° to +356°F)	36	42	54	73	46
-65° to +71°C (-85° to +160°F)	15	17	22	31	20
-40° to +85°C (-40° to +185°F)	13	16	21	30	18
Temperature Control Tolerance**	All Models ±0.3°C (±0.5°F)				
Live Load Capacity — Watts					
-18°C (0°F)	600	550	1000	1000	1000
-40°C (-40°F)	400	350	700	700	700
-54°C (-65°F)	300	200	400	400	400
Temperature Uniformity**	All Models ±0.7°C (±1.1°F)				
Window — In/Cm	12x12/30x30	13x19/33x48	17x23/43x58	12x12/30x30	17x23/43x58
Cubic Volume — Ft/Liters	4/113	8/227	16/453	27/764	32/906
Weight — Lbs/Kg	700/318	800/363	1320/599	1800/817	1800/817
Workspace — WxDxH					
Inches	20x20x20	24x24x24	30x30x30	36x36x36	38x38x38
Centimeters	51x51x51	61x61x61	76x76x76	91x91x91	97x97x97
Move-in — WxDxH					
Inches	31x42x68	35x49x73	45x59x81	51x65x88	53x68x90
Centimeters	79x107x173	89x124x185	114x150x206	130x166x224	135x173x229
Electrical Service — Amps	(full load)	(full load)	(full load)	(full load)	(full load)
230/1/60	25	25	47	47	47
230/3/60	20	20	36	36	36
220/1/50	—	28	—	—	—
400/3/50	17	17	18	18	18
Noise Level† — dBA					
Heating/Cooling†	60/68	60/68	60/70	60/70	60/70

SM-3800 SERIES TEMPERATURE / HUMIDITY CHAMBER SPECIFICATIONS

Model	SM-8 3800	SM-16 3800	SM-27 3800	SM-32 3800
Temperature Range	All Models -68° to +180°C (-90° to +356°F)			
Humidity Range*	All Models 10% to 98% RH			
Cooling Change Rate — Min				
+180° to -65°C (+356° to -85°F)	78	85	102	74
+71° to -65°C (+160° to -85°F)	54	59	76	51
+85° to -40°C (+185° to -40°F)	38	41	53	31
Heating Change Rate — Min				
-65° to +180°C (-85° to +356°F)	43	56	76	48
-65° to +71°C (-85° to +160°F)	17	22	33	20
-40° to +85°C (-40° to +185°F)	16	21	31	18
Temperature Control Tolerance**	All Models ±0.3°C (±0.5°F)			
Live Load Capacity — Watts				
-18°C (0°F)	550	1000	1000	1000
-40°C (-40°F)	350	700	700	700
-54°C (-65°F)	200	400	400	400
Temperature Uniformity**	All Models ±0.7°C (±1.1°F)			
Humidity Control Tolerance***	All Models 2.5% RH			
Humidity Uniformity****	All Models ±1% RH			
Window — In/Cm	13x19/33x48	17x23/43x58	12x12/30x30	17x23/43x58
Cubic Volume — Ft/Liters	8/227	16/453	27/764	32/906
Weight — Lbs/Kg	875/397	1395/633	1875/851	1875/851
Workspace — WxDxH				
Inches	24x24x24	30x30x30	36x36x36	38x38x38
Centimeters	61x61x61	76x76x76	91x91x91	97x97x97
Move-in — WxDxH				
Inches	35x49x73	45x59x81	51x65x88	53x68x90
Centimeters	89x124x185	114x150x206	130x166x224	135x173x229
Electrical Service — Amps	(full load)	(full load)	(full load)	(full load)
230/1/60	25	50	50	50
230/3/60	20	37	37	37
220/1/50	28	—	—	—
400/3/50	17	29	29	29
Noise Level† — dBA				
Heating/Cooling†	60/68	60/70	60/70	60/70

* Limited by a +7°C (+45°F) minimum dew point temperature and a maximum dry bulb temperature of +8°C (+190°F). Relative humidity indication at or near the physical limits may be affected by sensor accuracy and control tolerance.

** Standard deviation from mean, measured at -25°C (-13°F) or at +100°C (+212°F).

*** At a dry bulb temperature above +20°C (+68°F).

**** Based upon temperature uniformity specifications.

† Noise Level: A-weighted sound pressure level measured at a distance of 1.0 meter (39.4 inches) from the surface of the equipment at a height of 1.6 meters (63 inches) from the floor in free-field conditions, using a calibrated instrument.

Performance is based upon 60 Hz and 23.9°C (75°F) ambient air, and may vary slightly at other ambient temperatures. Chambers are designed for use under normal laboratory operating conditions. For other applications, please consult Thermotron.

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