


PREPARED BY	1/30/03 RH	PANELIZED WALK-IN TEMPERATURE AND HUMIDITY CHAMBER SPECIFICATIONS	Model	Drawing No.	Spc. No.	305537	1/3	
REVISION	A							
	B							
	C							
	D							
	E							

- | | |
|---|---|
| <p>1. Product Name</p> <p>2. Model</p> <p>3. Power</p> <p>4. Temperature Control System</p> <p>5. Ambient Temperature</p> <p>6. Water Temperature</p> <p>7. Performance</p> <p> 7.1. Loads</p> <p> 7.2. Temperature Range</p> <p> 7.2. Temperature Constancy</p> <p> 7.3. Temperature Uniformity (Gradient)</p> <p> 7.6. Humidity Range</p> <p> 7.7. Humidity Constancy</p> <p> 7.8. Humidity Uniformity (Gradient)</p> <p> 7.5. Airflow</p> <p>8. Construction</p> <p> 8.1. General Material</p> <p> 8.1.1. Exterior</p> <p> 8.1.2. Color</p> <p> 8.1.3. Interior</p> <p> 8.1.4. Insulation</p> <p> 8.1.5. Floor</p> <p> 8.1.6. Chamber Lighting</p> <p> 8.2. Door</p> <p> 8.2.1. Size</p> <p> 8.2.2. Configuration</p> <p> 8.2.3. Viewing Window</p> <p> 8.2.4. Safety</p> <p> 8.2.5. Ramp</p> | <p>Panelized Walk-In Temperature and Humidity Chamber.</p> <p>EWPH 3468 - 8CW.</p> <p>460V 3PH 60Hz.</p> <p>Balanced Temperature and Humidity Control System: BTHC.</p> <p>Allowable Range of Operation: 5 to 35°C (41 to 95°F).</p> <p>Range of Assured Performance: 10 to 30°C (50 to 86°F).</p> <p>Allowable Range 5 to 30°C (41 to 85°F).</p> <p>10,000 Lb. (average sp. ht. = 0.31 BTU/#°F).</p> <p> (TV sets: 50% glass / 50% plastic typical)</p> <p>1,000 lb steel racks.</p> <p>14.5KW.</p> <p>40°C (104°F) steady state.</p> <p>±1°C (±1.8°F) after temperature stabilization at control sensor.</p> <p>±2°C (±3.6°F) empty chamber after stabilization.</p> <p>90% RH steady state.</p> <p>±5% after stabilization.</p> <p>± 10% RH (empty chamber after stabilization).</p> <p> (Calculated based on Temperature Uniformity assuming constant absolute humidity).</p> <p>Approximately 15,000 cfm.</p> <p>Steel Panels.</p> <p>ESPEC White.</p> <p>Stainless Steel (SS304).</p> <p>Urethane Foam (4 inches) in walls.</p> <p>16 Ga. Stainless Steel (SS304). 400 lbs per square foot max. loading.</p> <p>Ten 100 Watt Lights</p> <p>72"W x 78"H.</p> <p>Bi-Part.</p> <p>14" x 24" heated view port in each door leaf.</p> <p>Inside Safety Release.</p> <p>72"W x 36"L external.</p> |
|---|---|

- 8.3. Test Space
Dry Bulb Detector and Wet Bulb Detector,
Ceiling Air Distribution Plenum.
- 8.4. Plenum Area
Air Grille, Suction Grille, Heater, Cooler, Overheat
Sensor, Dehumidifier and Air Circulator.
- 8.5. Instrumentation Panel
Temperature/Humidity Controller, Chamber Lamp Switch,
Running Time Meter, Overheat Adjustable Temperature Limit.
- 8.6. Machinery Compartment
 - 8.6.1. Top
Water and Drain Connection Ports.
 - 8.6.2. Inside
Refrigeration Unit, Auto-Regulating Water Control Valves,
Refrigeration Gauges..

9. Heater

- 9.1. Dry Heater
21 KW Nichrome Wire Heater.

10. Humidifier

Water/Air atomizer.

11. Cooler

Aluminum Fin Cooler.

12. Refrigeration System

Mechanical Refrigeration System.

- 12.1. Refrigeration Compressor
15 H.P. Semi-Hermetic Compressor.
- 12.2. Condenser
Water Cooled.
- 12.3. Expansion System
Expansion Valve and Capillary Tube.
- 12.4. Refrigerants
Refrigerant 404A.

13. Controller

- 13.1. Model
Temperature Controller..... SCP-220.

14. Safety Devices

- 14.1. Electrical
 - Electrical Disconnect for Power.
 - Circuit Breaker for Compressors.
 - Fuse or Circuit Breaker for Heaters.
 - Fuse for Control Circuit.
 - Overload Relay for Circulator Motor.
 - Specimen Power Supply Control..... for Product Interlock.
 - External Alarm Terminal for Equipment.
- 14.2. Refrigeration
 - High/Low Pressure Switchfor Compressor.
 - Oil Pressure Switch for Compressor.
 - Relief Valve for Refrigeration Circuit.
- 14.3. Chamber
 - Thermal Fuse for Chamber.
 - Adjustable Overheat of Specimen and Chamber.

15. Dimensions

15.1. Exterior

Width	Depth	Height*
208 in.	465 in.	107.5 in.
5.28 M	11.81 M	2.73 M

*Height Includes Electrical Connection Boxes.

15.2. Interior

Width	Depth	Height	Weight
200 in.	384 in.	78 in.	3468 cu. ft.
5.08 M	9.75 M	1.98 M	98.20 cu. M

15.1. Console

Width	Depth	Height*
21 in.	24 in.	68.5 in.
0.53 M	0.61 M	1.74 M

16. Utilities

16.1. Power

460VAC / 3Ø / 60 Hz

16.1.1. Service

110 AMP

16.2. Humidity Water

10 GPH, 30 psig, De-ionized.

16.2.1 Connection Size

1/2" NPT.

16.3. Compressed Air

5 SCFM, 80-100 psig, clean oil free.

16.3.1 Connection Size

1/2" NPT.

16.3. Condensate Drain

16.3.1. Connection Size

3/4" NPT.

16.4. Cooling Water

30 psig Differential Pressure Required.

16.4.1. Connection Size

2" NPT.

16.4.2. Water flow @ 75°F

18 GPM.

16.4.3. Water flow @ 85°F

25 GPM.

17. Included Features

17.1. Recorder

DX106 Yokogawa Paperless Recorder with Disk Drive.

17.2. Computer Interface

RS232 with ERC-100S software for SCP-220.

17.3. Cooling Water Temperature
and Pressure Display

17.4. Cooling Water Shutoff Valve
and Strainer

17.5. Ramp

External Removable.

17.6. Ports

4-6" Ports with Plugs.

17.7. Calibration

Certificate of Calibration.

ISSUED BY ESPEC NORTH AMERICA, INC.