



XI'AN LIB ENVIRONMENTAL SIMULATION INDUSTRY

Climatic Test Chamber Manufacturer and Supplier

Temperature & Humidity Test Chamber





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Standard Features

- Temperature control and display unit
- Humidity control and display unit
- French TECUMSEH compressor cooling unit
- Environment friendly refrigerant R404A & R23
- Humidification system with external isolation, stainless steel surface evaporation humidifier
- Heating element is Nichrome heater
- Circulation with low noise centrifugal wind fan
- Temperature sensor PT-100 , Resolution: ± 0.001 °C
- Humidity sensor dry and wet bulb sensor, Resolution: $\pm 1\%$
- Build- in water tank , 18Liter.
- Programmable color LCD touch screen controller
- Viewing window with interior lighting.
- Window size is 25*30cm.
- Test hole with silicone screw plug.
- 2 pieces of adjustable and removable mesh shelving.
- Bottom install 4 castors for ease moving, and with brakes function
- Ethernet Link, communication with LAN network interface
- Programs reach to 999 groups and 999 sections
- Safety protection system
- Interior material is high quality SUS304 stainless steel
- Exterior material is steel plate with protective coating
- Thermal insulation is Polyurethane foam
- Automatic water supply, water purification system
- Silicon seal for door
- Can perform long time 85 °C/85 % RH tests
- 220V, 50Hz/60Hz +/- 10% , single-phase





Temperature & Humidity Test Chamber

Model	TH-100	TH-225	TH-500	TH-800	TH-1000
Internal dimension (mm)	400*500*500	500*600*750	700*800*900	800*1000*1000	1000*1000*1000
Overall dimension (mm)	860*1050*1620	960*1150*1860	1180*1350*2010	1280*1550*2110	1500*1550*2110
Temperature range	A: -20℃ ～+150 ℃; B: -40℃ ～+150 ℃; C: -70℃ ～+150 ℃; D: -86℃ ～+150 ℃;				
Humidity range	20% ～ 98% RH				
Temperature fluctuations	± 0.5 ℃				
Temperature deviation	± 2.0 ℃				
Humidity deviation	± 2.5% RH				
Heating rate	3 ℃ / min				
Cooling rate	1 ℃ / min				
Controller	Programmable color LCD touch screen controller				
	Ethernet Link				
Temperature Sensor	PTR Platinum Resistance PT100Ω/MV A-class				
Humidity sensor	Dry and wet bulb sensor				
Heater	Nichrome heater				
Cooling system	Mechanical compression refrigeration system				
Refrigerating unit	French TECUMSEH compressor				
Refrigerant	R404A, R23				
Humidifier	External isolation, stainless steel surface evaporation humidifier				
Dehumidification system	Evaporator				
Air circulation	Centrifugal wind fan				
Water supply system	Automatic water supply; Water purification system				
Safety device	Humidifier dry-combustion protection; over-temperature protection; over-current protection; Refrigerant high-pressure protection; Water shortage protection, Earth leakage protection;				
Exterior material	Steel Plate with protective coating				
Interior material	SUS304 stainless steel				
Thermal insulation	Polyurethane foam				
Observation window	Interior lighting , double-layer thermo stability silicone rubber sealing				
Standard configuration	1 Cable hole (Φ 50,) with plug; 2 shelves				
Timing Function	0.1~999.9 (S、M、H) settable				
Power Supply	220V 50HZ	220V 50HZ	380V 50HZ	380V 50HZ	380V 50HZ
Environmental conditional	5℃～+40 ℃ ≤85% RH				



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Design and Construction

Test Area

- Material of the test cabinet is high quality SUS304 stainless steel, which is acid-proof and alkali proof, with high toughness features.
- Test hole sealed with silicone sealing plug.
- Temperature sensor and humidity sensor installed top right corner of test cabinet.
- Chamber with 2 stainless steel shelves, which can be adjustable.

Air Circulation

- 3 Air circulation fans in the workroom of the chamber.
- The real wall of test area equipped with chip-type wind board. Air flowing from top of wind board which control air direction return to air inlet to achieve air circulation.
- Forced air circulation in testing room to ensure the temperature uniformity

Cooling System

- Mechanical compression refrigeration system
- Refrigerating unit is French TECUMSEH compressor.
- Two cascade compressor
- Environment friendly refrigerant R404a for first stage,
- R23 for the second stage

Humidification & Dehumidification System

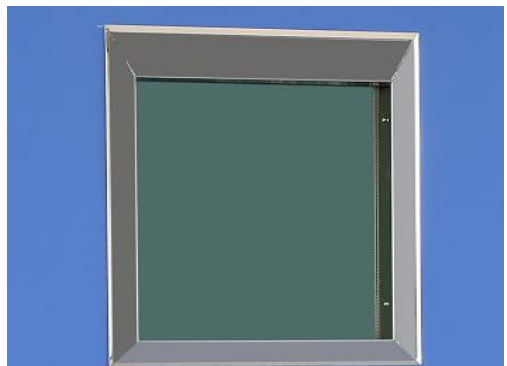
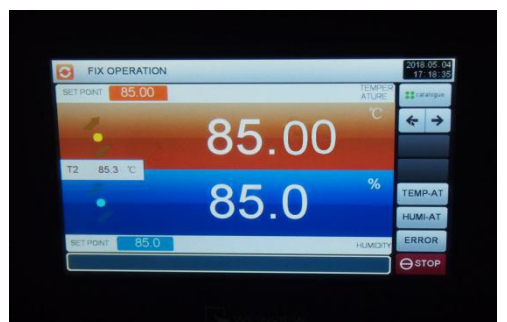
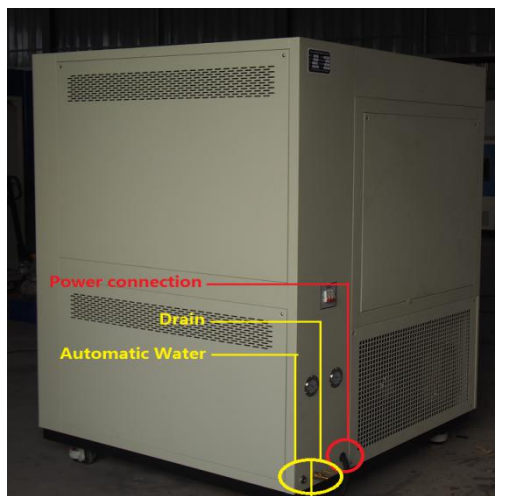
- External isolation, stainless steel surface evaporation humidifier
- With water drainage valve at back side of chamber

Control Panel

- Controller panel is located on right side of test chamber.
- Programmable color display touch screen controller.
- Controller language is English (standard)
- Programs reach to 999 groups and 999 segments.
- Ethernet Link, PC Link with software, LAN network interface.
- Touch screen control panel with color LCD display

Large Viewing Window

- Interior lighting
- Window coated with conducting film to protect it from frost.
- Size is 250*300mm W*H.





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Safety Protection

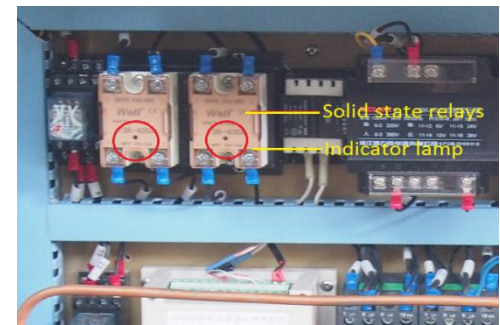
- Over temperature protection,
- Water shortage protection
- Humidifier dry combustion protection
- Refrigerant high pressure protection
- Over current protection
- Earth leakage protection

Operation and Calibration

- Easy to operate, with view window for inspection samples.
- Easy to move and stop, with castors on bottom,
- Space saving, able to put on table.
- Calibration, commissioning, final inspection before shipping with 9 external temperature probes for calibration test.

Power Supply and Wiring

- 220V, 50 Hz 10% +/-
- single-phase



Package with Export Standard Wooden Box

Can be used for Sea, Air, Railway, Truck transportation.



Installation

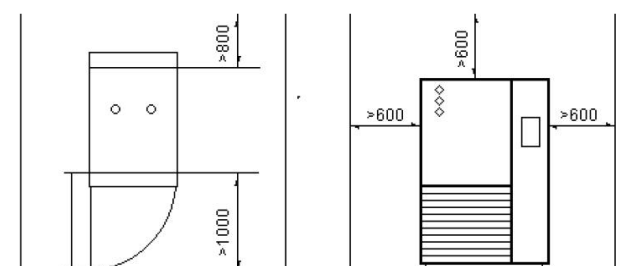
Operation manual and video available for installation & operation

Environment conditions

Temperature: 5 °C --35 °C , Relative humidity: ≤85%,
pressure: 86kPa—106 Kpa

Space conditions

Chamber shall be installed on flat floor, with good ventilation
No combustible material, explosive material or strong vibration around.
No direct sunlight or other heat sources direct radiation.
No strong airflow around.
No strong electric field around.



Warranty & Service

3 Years Warranty, Lifelong Follow-up Services.

After-Sales Service

3 Years Warranty, Lifelong Follow-up Services.

Training how to install and operate the machine.

Training how to maintain the machine.

Response within 24 hours once got questions from customers.

Send spare parts within 2 days after got notice.

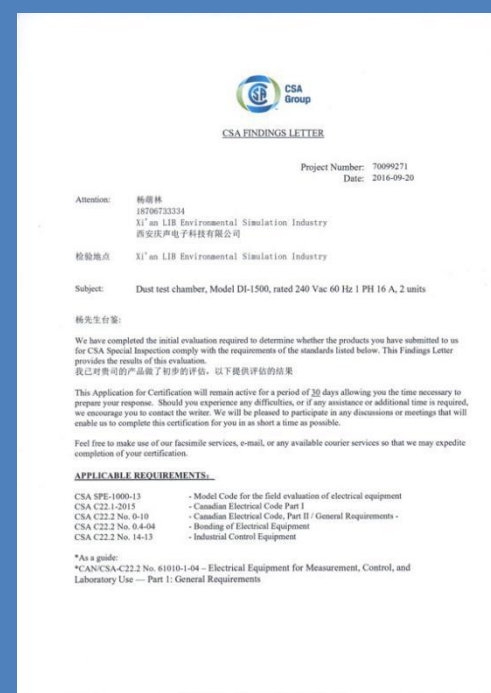
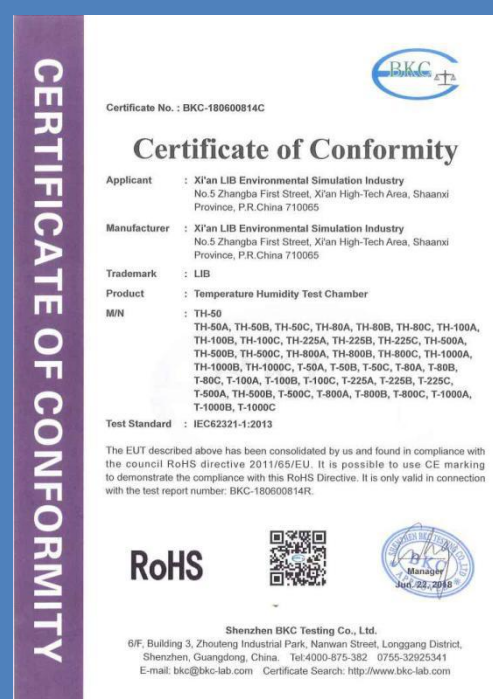
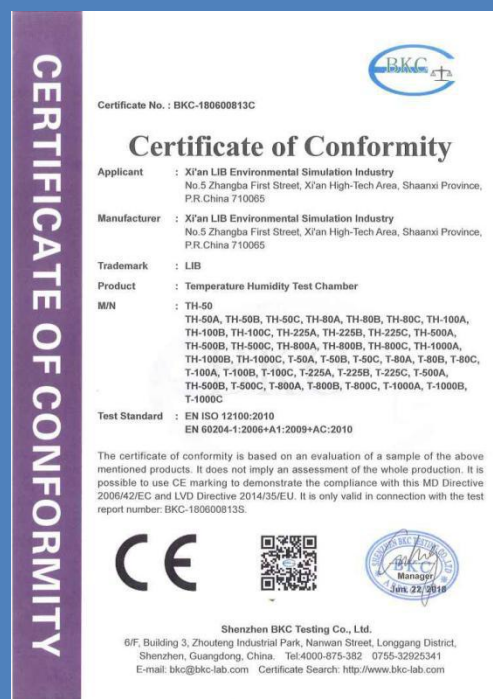
Engineers available to service machines overseas to install and commissioning.

Xi'an LIB environmental simulation industry is a manufacture and exporter of climatic test chambers in China, and have over 8 years overseas market in test chambers to more than 25 countries.

We provide various climatic chambers and service to accredited laboratories, manufacturing industry, institute, university, companies and other partners. And got testimonials from many of our esteemed companies.

To provide better service for customers, we have assembled a team of experienced and motivated people to provide service as

- **An extensive range of standard and custom climatic test chambers**
- **Services, Maintenance & Calibration for all kinds of environmental chambers**



Xian LIB Environmental Simulation Industry

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