



Xi'-An LIB environmental simulation industry



South America distributor:
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 ITALIA

Solar energy PV device test chamber

Solar energy PV device test chamber is mainly used in light-voltage industry, and the solar energy industry. It is necessarily to inspect equipment parameters and performance for testing light-voltage components which main are premier single silicon components, the ground Crystalline silicon light voltage modules, thin film light voltage module surface with a series of light-voltage parts after high temperature, low temperature, centigrade of alternating hot and humid environment or constant changes in temperature or constant temperature, damp heat test after environmental change procedure. Apply to schools, factories, military, research spaces, and other units test application.

Temperature range	-40°C~100°C
Temperature dispersion	±0.5°C
Temperature deviation	±2°C
Humidity range	30%~98%RH(40~90°C)
Alter range humidity	75%~95%RH(25~85°C)
Humidity deviation	+2、-3%RH
Rise / Fall speed (°C)	1.0~3.4°C/min (line function adjustable)
Setting time	0~9999hours (adjustable)
Power	32 KW
Casing coat material	rust prevention and plastic powder-spraying by
Air circulation	low temperature resistant stainless steel multi-
Thermal insulation material	thickness
Sealed gate	Silicone rubber bar of environmental protection
Heater device	1.Nickel alloy with high-speed infrared heating electric heaters(3KW*2) 2. Completely independent system of high temperature does not affect the low temperature tests, high temperature and humidity test.
Voltage	AC 3 phases 380V 50HZ
Control device	instruments used are all imported large screen Accuracy: 0.1 °C Resolution: ±0.1 °C.
Safety protection system	Perfect and complete safety system

Structure characteristics

1. Equipment structure takes up stainless steel plate plus (41090) power for hull painting. It not only has good profile, but also has fine corrosion resistance.
2. It utilizes imported closed-type compressor unit imported from Europe and USA, which has solid and durable structure and is enduring and can greatly enhance service property and life of the equipment; it takes up advanced energy-saving design, which can save electric power by 30%, save water by 20%, and it uses HFC refrigerant that will not harm human body and nature, you can conduct test in safe way;
3. It has advanced and innovative control theory, it integrates three control systems of PLC, HMI and SOC in fine way. Control is correct by 100%, and you can experience the novel control feeling;
4. It utilizes most powerful and reliable PLC and special modules in the industry circle. 50 programs and 2500 steps are provided for user to make setting/storage and running;
5. It utilizes protection module for safe voltage, the withstand voltage can reach 500V. After energizing the equipment, the equipment will not be burned and it can protect the equipment by 100%.
6. It takes up high-sense FastAIT monitoring and refrigerating system imported and achieves effective control and management for refrigerant volume;
8. It has automatic safety protection switch, which has high sensitivity, can detect any state, cut off protection and give alarm in shortest time and assure safety of the personnel and equipment;
7. It utilizes the advanced USB storage device in the industry. It is the only one for using the USB interface for storing data. It has not only large storage capacity and fast transmission rate, but also is portable, has great supporting property and is convenient.;
8. It can separately raise temperature, reduce temperature, humidify and dehumidify, it utilizes BTHC flat constant temperature and humidity regulating mode;
9. The radio tele-monitoring system takes up IPC/SCADA architecture LAN network interface, it can connect to more than 200 equipments at the same time, and it can avoid the complex wiring and eliminate the regional limit;
10. Large temperature and humidity range: 30~98%RH, the moisture can reach within 10%RH after installing the dehumidifying device;
11. It has air supply and circulating system, which can avoid dead angle of air flow in the chamber and improve the uniformity degree of product temperature and humidity.

Control system:

TEMI880 touch-key type temperature and humidity programmable controller

Operating interface: LED display

Temperature and humidity controller: touch-type LED controller

Setting mode: touching type

Running mode: setting-up running and programmed running

Program: 100 groups in 1000 sections

Resolution: temperature: ± 0.1 °C; humidity: $\pm 1\%$ RH

Input: platinum thermal resistance

Control mode: PID control

Communication function: LAN network interface

Additional function: alarm and display function, power-off protection function, upper limit temperature alarm function, timing function (auto startup and auto stop), self-diagnosis function, curve record and display function, paperless record, USB data export, tele-monitoring and so on.

It can execute 100 STEP X 10 PATTEM mode.

Each section can be grouped and executed in crossing way.

The execution time for each section can be set up between 0-999H plus 59min.

For setting up for each group, it can circulate within 1-999 in part or entirely for option.

In execution, it can select group circle picture or section execution picture and can know the remaining time for execution.

It has power-off function. After power recovery, it can complete the remained test.

It can select single-section control or multi-section programmable control.

The screen has backlight time control function and it can adjust the backlight brightness.

For executing single-section control, it can change the execution value at will. The memory-type multi-function control has automatic control output functions, such as heating heater and humidifying heater for electromechanical solenoid valve for different groups of refrigerating compressors and so on.

·Water supply

Water supply mode: water lifted by pump

Water supply port: convenient front water supply port

Water storage tank: built-in stainless steel fixed-type water storage tank (with a volume about 15L)

Safety device

Humidifier dry-combustion protection, independent over-temperature protection, water shortage protection, over-current protection, refrigerant high-pressure protection switch, over-current circuit breaker, earth leakage protection and so on.

·Operation ambient temperature: $+5\sim +30$ °C

·Power supply : AC220 $\pm 10\%$ V 50 ± 0.5 Hz single-phase double-wire + protective grounding wire/
AC380 $\pm 10\%$ V 50 ± 0.5 Hz three-phase four-wire+ protective grounding wire

Accessory

1 cable hole ($\Phi 50$,) cover, 2 sets of shelf, 2 protector tubes, 1 overflow water tube, 1 copy of

operating specification

·Optional accessory:

recorder, tele-monitoring software

Note:

1. The products above can be customized according to demands of the clients;
2. The technical parameters above are the data obtained under room temperature of 20°C and non-load condition.

