

## Walk-in fast temperature change

## high and low temperature humidity heat test chamber

Custom solutions

The walk-in fast temperature change high and low temperature humidity and heat test box is used for equipment to simulate the climate environment, suitable for aerospace products, information electronic instruments, materials, electricians, electronic products, various electronic components to test the performance indicators of products under the condition of rapid temperature change.



Step-in high and low temperature (damp heat) test box is widely used in key laboratory and large third party testing laboratory, involving aviation, aerospace, weapons, ships, automobile, intelligent manufacturing, new energy, communications, measurement, electronics, railway, electricity, medical and scientific research institutions, and many other key areas of national economy, in the high and low temperature hot and humid environment for large test temperature stress detection, temperature and humidity screening, reliability test, performance test, weather test, high and low temperature storage, etc.

## Technical characteristics

### Performance:

Type: PSLW-24

Temperature range:  $-50^{\circ}\text{C} \sim +90^{\circ}\text{C}$

Temperature fluctuations:  $\pm 0.5^{\circ}\text{C}$

Temperature deviation:  $\pm 2.0^{\circ}\text{C}$

Temperature uniformity:  $\leq 2.0^{\circ}\text{C}$

Temperature rise rate:  $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$ ,  $5^{\circ}\text{C} / \text{min}$  (load operation) load condition 4KW

Temperature drop rate:  $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$ ,  $5^{\circ}\text{C} / \text{min}$  (load operation) load condition 4KW

Humidity range: 20 to 98% RH (Visara humidity sensor)

Relative humidity deviation:  $+2 \sim 3\%$  RH

Uniformity of relative humidity:  $\pm 3\%$  RH

Working volume:  $24\text{m}^3$

Dimensions (mm)	W	H	D
Use full	3000	2000	4000
Overall	3700	2280	5640

### Structural features:

1. The whole box adopts the overall structure. Box structure
2. The inner box body adopts 1.0mm SUS304 stainless steel plate, 1.0mm cold rolled steel plate is sprayed on the outside, and the insulation material adopts ultra-fine glass insulation cotton.
3. Gate sealing adopts double-layer silicone rubber sealing material.
4. The observation window is multi-layer conductive film tempered insulating glass, In order to prevent glass frost at low temperature, special safety voltage heating wire surround and tropical power supply voltage 36V, and equipped with lighting to provide lighting for observation.
5. On the side of the box is equipped with  $\phi 50\text{mm}$  test hole with plug, the plug is made of silicone rubber with low foam, which can withstand high and low temperature, and has thermal insulation efficiency.
6. There is an air regulating cabinet at the back side of the chamber studio, during which the humidifier, evaporator, electric heater, fan, fan volute and other equipment are installed.
7. The temperature sensor is placed in the air outlet.
8. The air supply mode in the test box is the cooling system of upper air supply and lower cooling air.

# Lab Companion®



number	name	illustrate
1	Tricolor lamp	Green light operation, yellow light standby, red light failure
2	Unit cabinet	Installation position of equipment power distribution cabinet and refrigeration part
3	Test holes	Equipment live test wiring inlet
4	Control panel	The machine uses the operating interface
5	Windows glass	Convenient to observe the internal operation of the laboratory
6	Gate lock	Pull the vertical bar and the left triangular handle to open the door
7	Inclination	Assist transport samples into the test area

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# Lab Companion®

## ► Control system: Hongzhan C100 touch screen temperature program controller

Function:

1、 Super large touch screen: photo-quality full true color 7' 88 (H) × 155 (W) mm, resolution 800 × 480 (true color)

2、 Accurate sampling and measurement cycle: 0.6s, rapid response of the instrument

3. Super program group capacity: 250 PATTERN (group) / 12500 STEP (segment) / 0~520H59M / STEP (segment) time adjustable

4. Long fixed value time setting: 0~99999H59M adjustable

5. Long cycle number setting: each group of programs can be set 1~32000 times (small cycle can be set 1~32000 times)

6. Communication function:

(1) Standard USB interface download curve and data.

(2) Standard R-232C computer interface.

(3) Internet connection interface (to be specified when ordering)

7. Additional functions:

(1) Appointment start setting.

(2) The estimated end time of operation is indicated, and the approximate end time is understood.

(3) Power-on time accumulation, running time accumulation.

(4) Program end planning (program connection, transfer to fixed value, shutdown, etc.)

8. Energy-saving control function: cold output balance can be selected to effectively reduce the mutual consumption of cold and heat, and save 30% of electricity compared with the same period last year.

9. The customer data input function can independently input the information of the unit, department, telephone and other information, and the use of the machine is clear at a glance

10. Data storage:

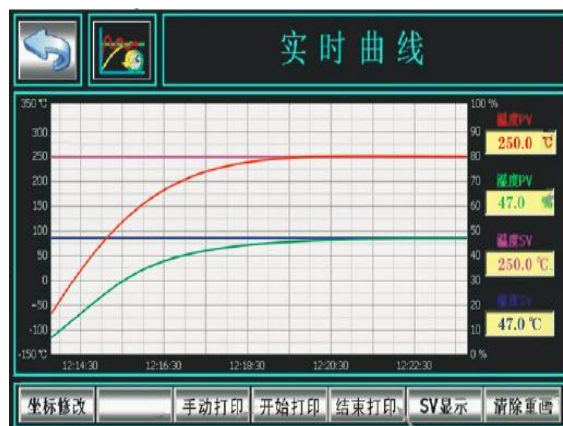
(1) The actual value of PV/SV setting value is recorded and saved according to the sampling cycle.

(2) Curve, historical data can be selected by USB to copy by date.

(3) According to 60 seconds of sampling, 120 days of data and curves can be recorded



Display the interface



Temperature profile

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