Lab Companion®

Multi-layer high and low temperature test chamber

Custom solutions

The multi-layer high and low temperature test chamber products have the law of temperature change in the simulated atmospheric environment. It is mainly aimed at electricians, electronic products, and their components and other materials in the high temperature, low temperature comprehensive environment, transportation, use of adaptability test. Used in product design, improvement, identification and inspection.



The two-layer independent temperature control test chamber adopts two control systems to independently control the temperature and humidity of each test chamber and the freezing system, which is convenient for the comparison between the specimens, and saves space and cost. This equipment is generally used in electronic products and materials, batteries, batteries, batteries, plastic products, metal materials, auto parts, aerospace, university scientific research, etc.

Technical characteristics

Lab Companion®

Performance:

Temperature range: $-70^{\circ}\text{C} \sim +150^{\circ}\text{C}$ (Gas refrigeration method)

Increase temperature rate requirements: 25°C~150°C (Nonlinear empty load 3.5°C/min)

Reduce temperature rate requirements: 25° C ~-70°C (Nonlinear empty load 1.0°C/min)

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

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

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

Working volume: 80L

Dimensions (mm)	w	h	d
usefull	400	500	400
overall	980	1500	1505

Structural features:

The layered independent temperature control test chamber adopts two control systems to control the temperature of each test chamber and the freezing system independently, which is convenient for the comparison between specimens, and saves space and cost.

Material: stainless steel plate (SUS # 304) in the test area, painted outer box;

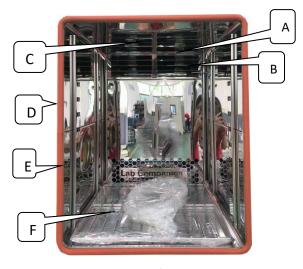
Observation window: two upper and lower, convenient for observing and comparing test products, and the window is designed to prevent condensation of water vapor;

Test hole: can be connected to external test power line and signal, 2 $\,^{\,}\Phi$ 50mm lead holes, with cover and soft plug;

Annex: a: Machine pulleys b:2 sets of stainless steel trays

Test area structure:

	number	Name	Illustrate
Α	RTD sensors	used for panel over temperature	
		KID Selisors	sensing inner box temperature
В	D	RTD sensors	used to sense the temperature of
	KID Selisors	the inner box of the controller	
С	Air outlet	Circulating air outlet in the test	
		area	
D	Sealant	Heat preservation and prevention	
		of air leakage	
E	Sample	Used to hold the sample holder	
	holder track	Used to hold the sample holder	
F	Sample	Place the test product	
	holder		



测试区

Control system: Hongzhan C100 touch screen temperature program controller

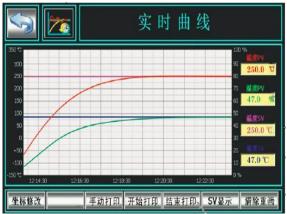
Function:

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- 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