

	<p style="text-align: center;"><b>Xi'-An LIB environmental simulation industry</b></p> <div style="text-align: center;">  <p><i>South America distributor:</i></p> <p><b><i>www.GtemCell.com</i></b></p> <p style="font-size: small;">ITALIA</p> </div>
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### Shock test Chamber

Thermal shock test chambers are classified as 2-chamber dynamic shock and 3-chamber static shock. They can be used in thermal shock test as well as the high-temperature or low-temperature test. They are applicable for the applicability test of the sample products in aerospace, aviation, military industry, electronics and electrics under the condition of drastic temperature change and the safety and reliability test for the electronic elements and parts as well as the selection of products

Specs & Technical Parameters		3TS-100	3TS-210	3TS -300	3TS -500
Preheat room	Upper limit preheat temperature	200°C			
	Heating time	R.T.~+200°C, about 40min (unload)			
Precool room	Lower limit precool temperature	-75°C			
	Cooling time	R.T.~70°C, about 90min (unload)			
Workroom	Temperature shock range	-20°C、-40°C、-55°C~+150°C			
	Temperature fluctuation	≤±0.5°C			
	Temperature deviation	≤±3°C			
Transform time		≤15S			
Temperature revert time		≤5min			
Temperature revert conditions	3CJ-100S	sample load: 10kg		Sample exposed	
	3CJ-210S	sample load: 15kg		30min in 150°C,	
	3CJ-300S	sample load: 25kg		5min in ambient temp.	
	3CJ-500S	sample load: 35kg		30min in -55°C,	
Capacity		100 L	210 L	300 L	500 L
Workroom dimensions (cm)	D	50	70	70	90
	W	50	60	78	80
	H	40	50	55	70
Exterior dimensions (cm)	D	115	135	135	250
	W	195	210	225	225
	H	210	220	230	215

#### **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 durable 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 Fast AIT monitoring and refrigerating system imported and achieves effective control and management for refrigerant volume;

7.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;

8It 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.;

9.It can separately raise temperature, reduce temperature, humidify and dehumidify, it utilizes unique BTHC flat constant temperature and humidity regulating mode;

10.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;

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.

### **constitute**

Inner chamber material: stainless steel plate Shell material: Stainless steel with texture treatment or high-quality cold rolled steel plate with static injection

Thermal-insulating material: high-density isocyanurate foam + glass fiber

Cable hole: inside diameter of  $\Phi 50$ ,  $\Phi 80$ ,  $\Phi 100$ ...

Heater: Ni-chrome electric heater

Mixing blower: centrifugal blower

Motor: condenser type

Castor: 4 active castors with braking

Observation window: built-in toughened glass in heating unit

### **Refrigerating system**

Refrigerant: environment-friendly R404 and R232 refrigerant

closed-type and low-noise rotor compressor imported from Europe and USA

Refrigeration mode: machinery compression single-step refrigeration (air-cooled condenser) and machinery compression dual cascade system refrigeration (air-cooled condenser)

R404 and R232 refrigerant: environmental protection refrigerants

### **Control system:**

TEMI880 touch-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:  $\pm 0.1$  °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.

### **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~ + 30°C

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

**Accessory**

1 cable hole (Φ50, Φ80 , Φ100...) 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.

