GUANGDONG ZHONGZHI TESTING INSTRUMENTS CO., LTD.
Address: 417, Shatian Section, Gangkou Road, Shatian Town,
Dongguan, Guangdong, China
Web：https://www.tempcyclechamber.com/

High Temperature Test Chamber

Technical Specifications

(The pictures are for reference only, the actual product shall prevail)

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Ⅰ. Overview of the main functions of the equipment

1. Use

The series high temperature test chamber is one of the commonly used equipment in various reliability environment tests. It is used to test the influence of high temperature on its safety, integrity and performance during storage; and the influence of high temperature on its performance. Specialized in IC, LED, LCD, electronic electrician,communication, automobile, new energy, scientific research institutions, military, aerospace, shipyard and other industry products and materials in the high temperature environment: baking, curing, drying, heat treatment and high temperature aging inspection of its performance indicators.

2. Working principle

Air circulation forces heat circulation, with air room, circulating air duct, heating device and circulation fan, equipped with air guide plate and fan; the temperature controller sends instructions according to the setting temperature and the temperature sensor signal in the test box, controls the output of the heater through calculus time and SSR control module, and the circulating air evenly blows out from the air outlet after the test space and recovers from the return air outlet into a closed loop control mode, so as to achieve the purpose of long-term and stable operation.

3. Limit of the test samples

This test equipment is prohibited by:

Test or storage of samples of inflammable, explosive and volatile substances; test or storage of corrosive substances; test or storage of harmful biological samples; test or storage of samples of strong electromagnetic emission sources; test or storage of radioactive substances; test or storage of samples of highly toxic substances; test or storage of samples of above substances or objects that may be produced during test or storage.

Ⅱ. Detailed introduction of the equipment

1. Product name	**High-temperature testing chamber**
2. Product model number	**CZ-UT-72T-T**
3. Volume, size and weight	
3.1. Internal volume	**72L**
3.2. Inner box size (mm)	**W450×H400×D400**
3.3. Outer box size (mm)	**About W740×H970×D870 (without top alarm light)**

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3.4. Net weight	About 150kg
4. Performance indicators	
4.1. Test environmental conditions	Ambient temperature is + 25℃, relative humidity is≤85% RH, and no samples are present in the test box (otherwise stated in addition)
4.2.Test method	GB/T 5170.2-2017 Temperature test equipment
4.3.Temperature range	RT +20℃→+260℃
4.4. Temperature control performance	Temperature deviation: ≤100℃ ± 1.5℃ ≤200℃ ± 2.0℃ ≤260℃± 3.5℃ Temperature fluctuation:±0.5℃ Temperature resolution: 0.1℃
4.5. Heating rate	RT + 260℃ averaged ≥3.5℃ / min
5. Equipment power and power supply conditions	
5.1. Machine power	AC220V 50HZ 3.5KW
5.2. Power supply conditions and power supply	AC220V Single-phase second-line + protective grounding Allowable voltage fluctuation range: AC±10%V Allowable fluctuation range of frequency: (50 ± 0.5) HZ Power supply by TN-S or TT The protective ground ground resistance is less than 4Ω. The user is required to configure an air or power switch for the equipment at the installation site. The switch must control the use of the equipment independently.
6. Meet the test methods and equipment execution standards	GB/T 5170.2-2017 temperature test equipment GBT 11158-2008 High temperature test box technical conditions GJB150.3A-2009 High-temperature test method GB/T 2423.2-2008 (IEC 60068-2-2:2007) Test Bb: high temperature GB/T 30435-2013 Electric thermal drying box and electric thermal blast drying box
7. Noise	Less than 70 db (A) (1m from the box and 1.2 m from the ground)
8. Structural features	

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8.1 Box structure layout	The test box and control box are integral type, upper and lower structure. The moving casters and positioning cup are installed at the bottom of the box to facilitate the movement and positioning of the machine. The test box has an internal air mixing room and a circulating air duct.
8.2. Box material and heat insulation	Outer wall material: cold-rolled steel plate paint treatment, plate thickness of 1.2mm (color: RAL 7035 white) Inner wall material: stainless steel material, plate thickness of 1.0mm Thermal insulation material: thermal insulation medium is glass fiber cotton, thermal insulation material thickness: 100 mm
8.3. Box door	Single-open type hinge door The big door handle is open outside, so that the test personnel can open freely.
8.4. Air circulation system	Internal circulation motor strong air circulation, heat from the air duct goes through the air outlet adjustment louver uniform which is distributed to the indoor space, thus achieving a uniform distribution of indoor temperature.
8.5. Lead line test hole	ϕ50mm test hole on the left side of the box, with corresponding insulation accessories and special sealing cover
8.6.Sample holder tray	The indoor space is provided with a sample rack to support the adjusting indexing rack and a movable hook track bar is provided on the indexing rack. The sample rack can be easily put in and taken out. The spacing between the layers can be adjusted and the minimum adjustment spacing is 45mm. Standard: set a 2-piece tray rack
8.7. Control panel	Control panel is installed on the top of the equipment, on the panel, it is installed digital display controller, adjustable over-temperature protection device, alarm switch, start switch, alarm, heating output indicator, end light.
8.8. Heat mixing room	Internal installation of heating pipe, air circulation air duct, circulation fan, indoor over-temperature protection sensor, adjustable shutter.

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8.9. Power distribution control cabinet	Main power supply circuit breaker, controller, power distribution board, dispersing heat fan, circulating fan, adjustable over-temperature protection device.
8.10. Power supply cord hole	Located on the back side of the box
9. Electrical control system	
9.1. Temperature controller	7 inch color touch screen 
9.2. Screen display function	Temperature setting (SV)& actual (PV) value is directly displayed Can display the execution program number, segment, remaining time and number of cycles, running time display Program editing and graphical curve display With an independent program editing screen, can input 4 segments of temperature, time in each page. Point or program action status display
9.3. Program capacity and control function	The number of programs that can be used: up to 120 groups, 1 program can be combined by 1~99 segments. capacity: 1200 segment, repeatable command: each command can be up to 999 times. Temperature slope setting can be set by the time axis; Linkage between programs can be set.
9.4. Communication port	One RJ-45 Ethernet port One RS-485 interface
9.5. Setting mode	Touch input
9.6. Running mode	Program mode/values setting mode
9.7. Setting range	The maximum temperature range is 5℃.

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9.8. Display resolution	Temperature: 0.01℃; Time: 0.1min
9.9. The power failure memory function	Set the power failure recovery mode to: hot start/cold start/stop
9.10. Put in	Platinum resistor
9.11. Circulating fan	Adopts high temperature resistant long-axis motor. The motor is installed in the outdoor space, the shaft extends to the room, and the mixing wheel is installed at the tail end of the shaft. Special insulation measures and cooling systems are used to improve motor safety.
9.12.Heater	Nickel-chromium alloy heating wire, high efficiency, long service life
9.13 Heating control way	The temperature controller sends instructions according to the setting temperature and the transmission signal of the temperature sensor in the test box, adjusts and controls the output of the heater through the SSR control module and the logic circuit. Reliable operation, no contact, no spark, long life, no noise, no electromagnetic interference, fast switching speed, strong anti-interference, small size, vibration resistance, impact resistance, explosion-proof, moisture-proof, anti-corrosion, with a small control signal to directly drive large current load control mode.
9.14 Over-temperature protector	The over-temperature protector and the main control temperature controller have their own independent temperature acquisition probe to monitor the temperature in the chamber at the same time. When the main control temperature is out of control, the heating system can be disconnected in time to effectively protect the safety of the test product and improve the reliability of the equipment.
9.15 Thermometry	PT100 Platinum resistor
10. Safety protection system	
10.1. Test box	Adjustable over-temperature protector, box automatic pressure balance protection
10.2. Heating system	Short circuit protection of heating pipe, overload protection of heating pipe and fan chain protection (fan is not in operation and no heating)
10.3. Cycle air fan	Fan overload protection, short-circuit protection
10.4. Power supply control system	Power short circuit protection, power overload protection, control line overload protection
11. Delivered equipment supporting devices and materials	

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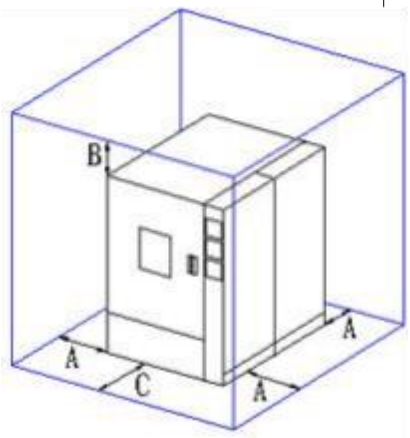
11.1. Sample stand	Equipment sample rack tray	2 pcs
	Equipment sample rack hook rail bar	4 pcs
11.2. Technical materials	ex-works packing list	1
	Schematic diagram of the electrical equipment	1
	Equipment operating manual	1
	Equipment certificate	1
	Equipment warranty card	1
	Equipment ex-works inspection report	1
12. Environmental conditions and site requirements [Users shall guarantee the following conditions]		
12.1 Environmental conditions	Temperature: 5℃~30℃ Relative humidity: ≤85% RH Air pressure: 86kPa~06kPa	
12.2 Place the channel	According to the outer size of the test box, we can pass the special areas: corner, door size, elevator size and other special situation.	
12.3 Installation site requirements	The ground is smooth and well ventilated, without flammable, explosive, corrosive gas and dust; no strong electromagnetic radiation source nearby; Ground load-bearing capacity of the site: not less than 300kg/m^2 ; Leave proper maintenance space around the equipment. A: not less than 500mm B: not less than 500mm C: not less than 1000mm	

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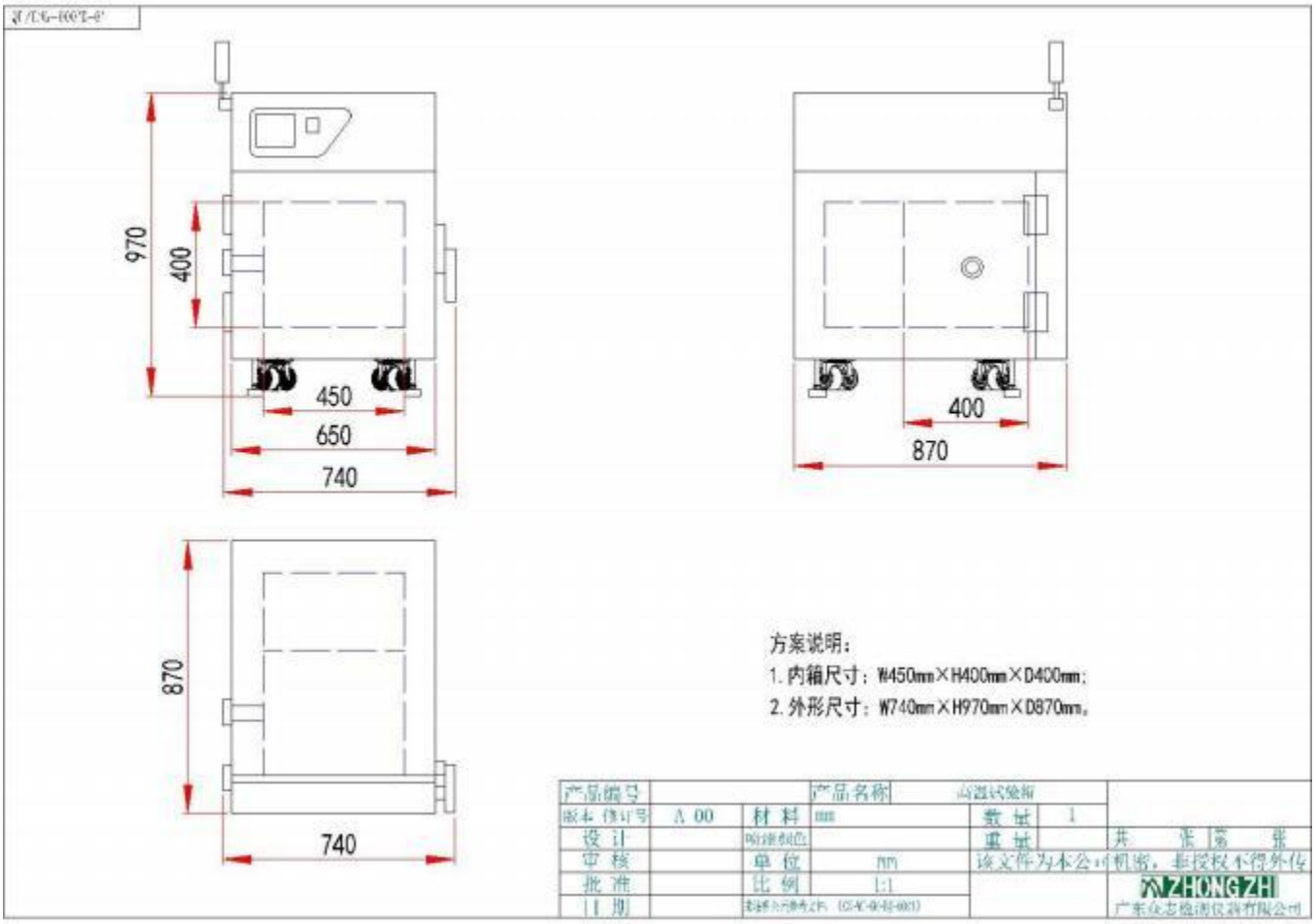
14. Overall structure drawing of the equipment (subject to the actual design)



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15. List of the main spare parts of the equipment

NO	Name	Brand	Remarks
1.	Temperature controller	Zhongzhi,China	
2.	Test room box	Zhongzhi,China	
3.	Power circuit breaker	Fuji Japan/Schneider,France	
4.	Overtemperature protector	Yuehang,China	
5.	AC contactor	Schneider,France	
6.	Solid state relay	Carlo Gavazzi, Switzerland	
7.	Heater	Zhongzhi,China	
8.	Material rack tray	Zhongzhi,China	
9.	Sample rack rail bar	Zhongzhi,China	
10.	Alertor	Tiande,China	
11.	Heating overloader	Schneider,France	
12.	Heat-overload relay	Schneider,France	
13.	Temperature sensor	Thermoway,Taiwan,China	
14.	Other auxiliary materials	China Brand	