Mikrosize®

THT-80/225/408/1000
Programmable Temperature And Humidity Test Chamber

Contact us

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Features and Applications

Product Features

- Adopts a color LCD touch screen
- The outer shell is made of painted steel plate, which is corrosion-resistant, rust-proof, wear-resistant and scratch-resistant, while enhancing the appearance texture
- The transparent observation window is made of three-layer vacuum glass, equipped with an illuminating lamp and an electric defogging function, allowing a clear view of the interior of the test chamber.
- The inner chamber is made of 304 stainless steel plate, equipped with 2 stainless steel shelves with adjustable height.
- The inner chamber size can be customized; the standard configuration is 500mm750mm600mm (408L).
- Uses polyurethane rigid foam + glass wool as thermal insulation material.
- Temperature range: -40°C~+150°C; Humidity range: 20～98% R•H adjustable.
- Equipped with a built-in movable water tank and an automatic water supply pump, which can automatically transport water from the lower water tank to the upper layer.
- Automatic water shortage alarm.
- The bottom of the equipment is equipped with movable universal wheels for easy movement.
- The humidifier adopts a split-type humidifying cylinder design.
- Real-time display of temperature and humidity curves.
- Editable multi-stage temperature and humidity programs with multiple cycle segments.
- Power-off program memory function; after power recovery, you can choose to continue executing the program.
- Reservation start and shutdown functions to realize unattended operation.
- Key components adopt imported parts, such as France Tecumseh compressor.
- Equipped with various protection devices: overpressure protection, overload and overcurrent protection, heating dry-burning protection, phase failure protection, water tank water shortage protection, etc.
- USB interface for data export
- Design meets the following standards: GB11158, GB10589-89, GB10592-89, GB/T10586-89, GB/T2423.1, GB/T2423.2, GB/T2423.3, GB/T2423.4, GB/T2423.22, IEC60068-2-1, IEC60068-2-2, GJB150.3, GJB150.4, GJB150.9.

Product Application

● Electronic and electrical industry

● Used to test the working status of electronic components (chips, capacitors, resistors) and complete equipment (mobile phones, computers, home appliances) under high and low temperature, high humidity environments, verify their moisture-proof, heat-resistant and cold-resistant performance, and avoid problems such as short circuits, aging and performance degradation of products in actual use.

● Automobile industry

● Simulates working conditions such as high-temperature exposure, low-temperature cold, humid and rainy weather to ensure that components do not fail under complex environments. For example, testing the wear resistance of automobile tires under high temperature and high humidity, and the high and low temperature charging and discharging performance of battery packs.

● Textile and leather industry

● Tests the color fastness, tensile deformation and mildew of textiles and leather products under different temperature and humidity conditions, judges the weather resistance of products, and guides the optimization of production processes.

Product Details

- The test inner chamber is made of SUS#304 stainless steel
- Equipped with two shelves with adjustable height

- A water filling port is set at the bottom of the equipment with a moderate height for easy water filling. The built-in automatic water supply pump can transport water from the lower water tank to the upper layer
A prominent water level line is set to judge whether the equipment needs water filling

High water level

Normal water level

Low water level

- Adopts imported France Tecumseh compressor

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1. Operation Panel   2. Illuminating Lamp   3. Transparent Observation Window

4. Door Lock   5. Water Filling Port   6. Water Level Line   7. Movable Casters
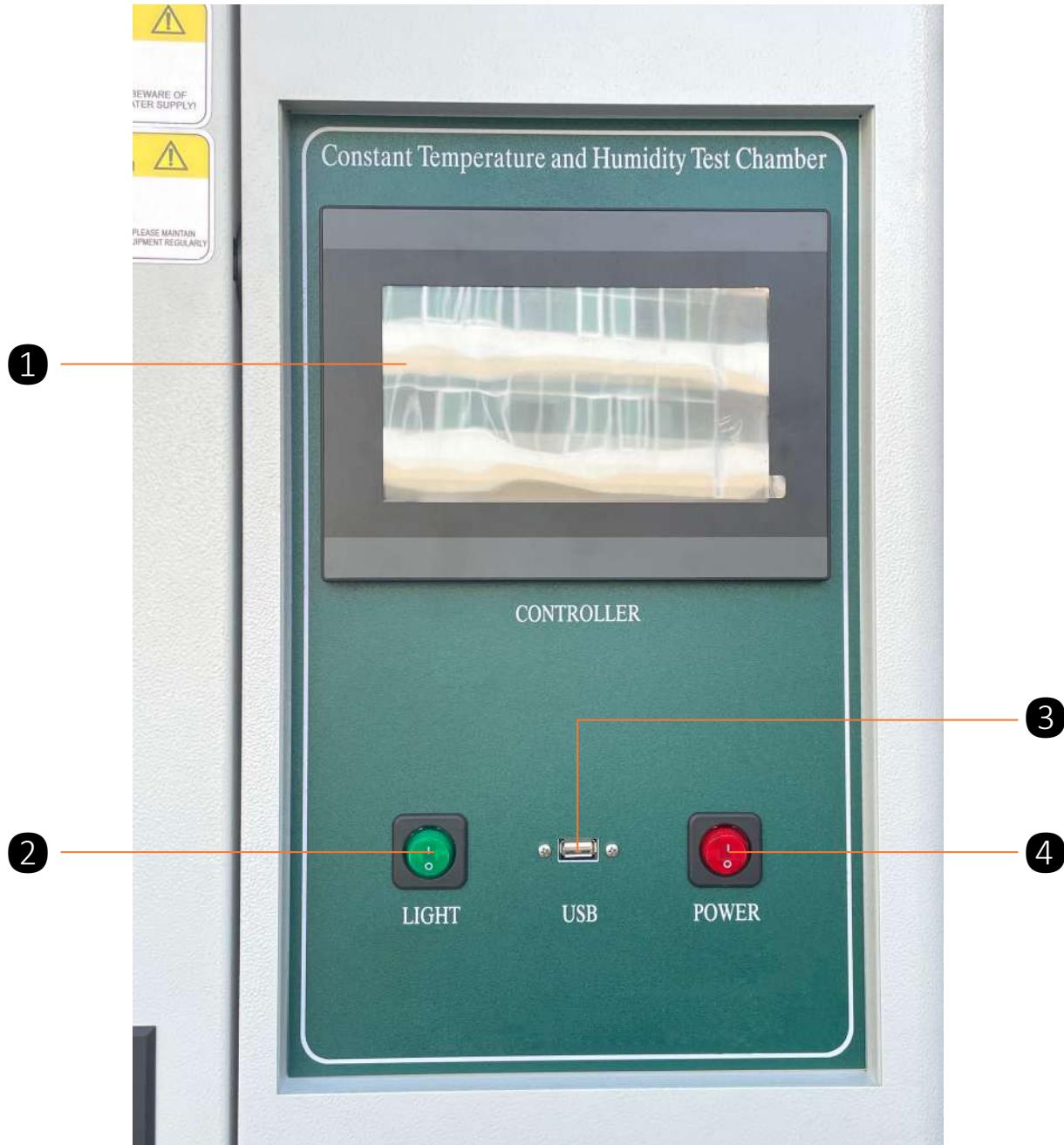
1. Touch Screen Controller   **2. Illuminating Lamp Switch**   **3. Usb Interface**

4. Power Switch

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Operation Interface

1. Product Model	2. Fixed-Value Test	3. Program Test
4. Setting Menu	5. Time And Date	6. Reservation Setting
7. Fault Record	8. Version Number	9. Serial Number

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Operation Interface
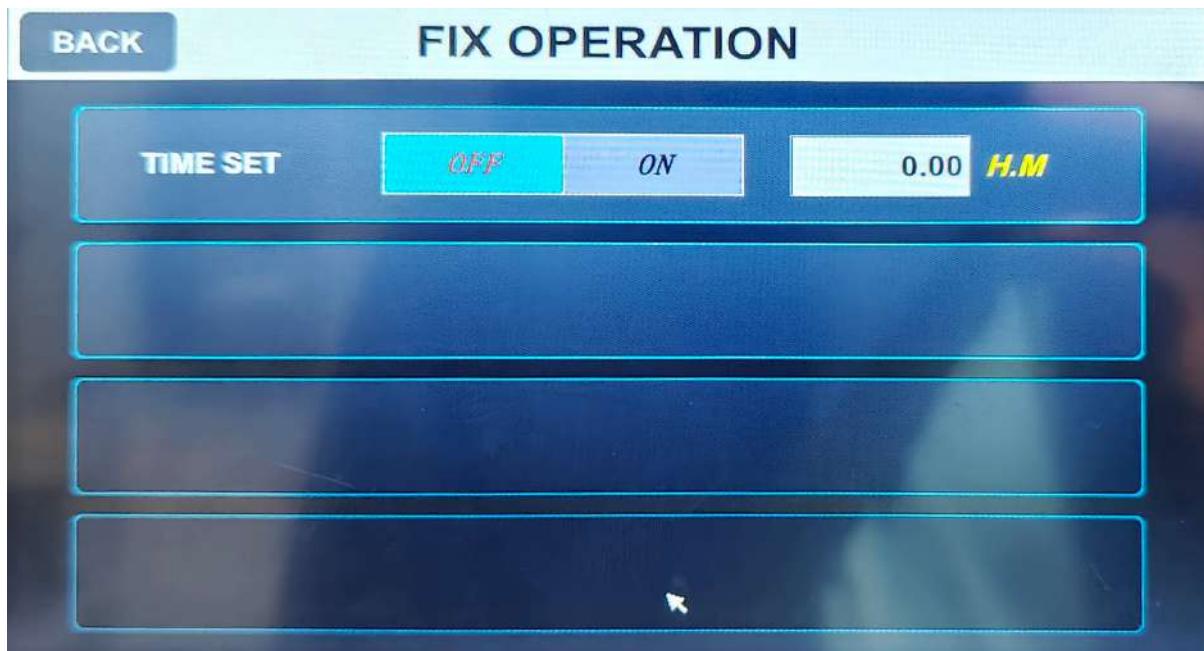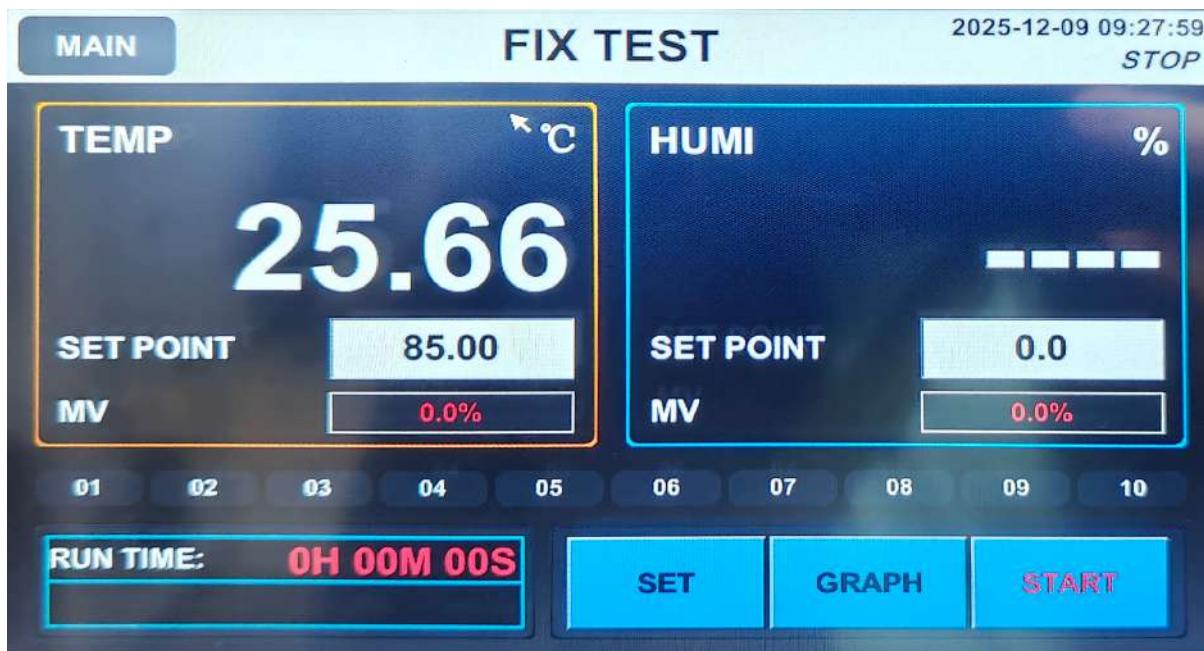
● Set a fixed temperature and humidity parameter, which will not change after reaching the set value.

● When the timing shutdown function is turned off, the test will run continuously; when turned on, the running time can be input, and the test will automatically stop when the running time is reached.

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Operation Interface
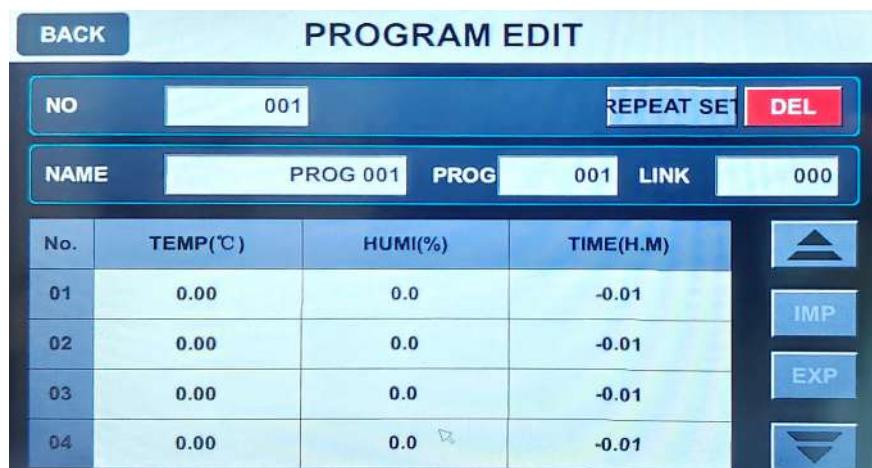
- Multiple segments of temperature and humidity parameters can be set, and the temperature and humidity parameters can be changed in each segment.
- Up to 120 groups of programs, each command can be executed repeatedly 999 times.

Operation Interface
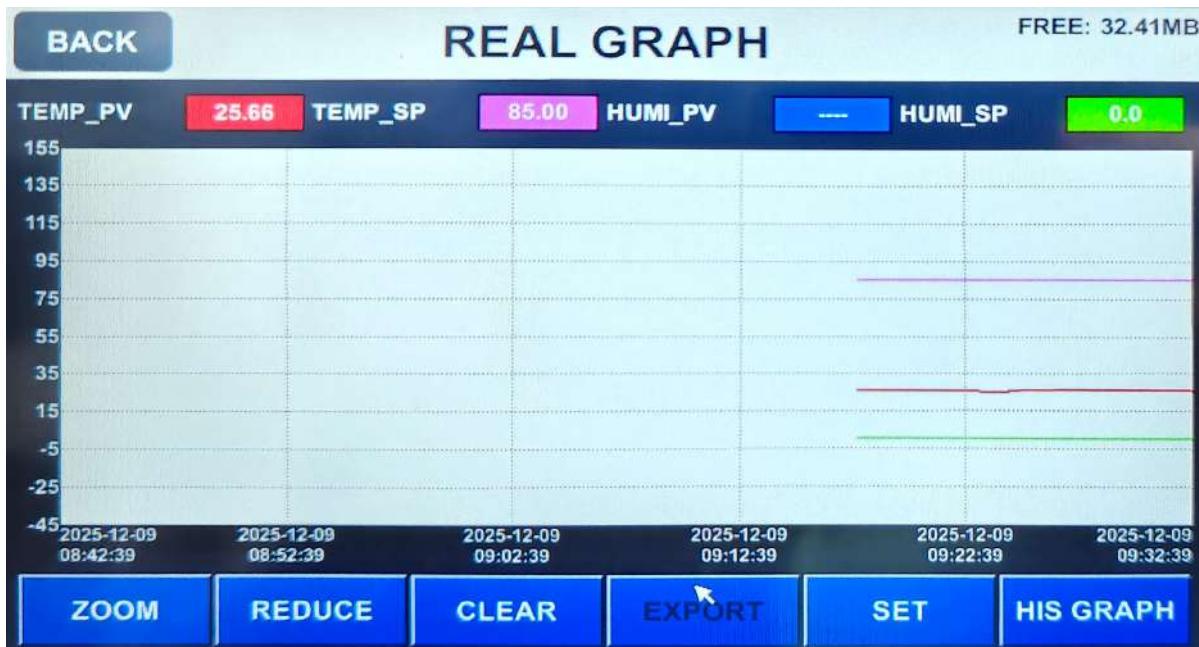
- Can generate real-time curves, including temperature measured value, temperature set value, humidity measured value and humidity set value. Each value is displayed in a different color for easy distinction.
- Can zoom in and zoom out the curve screen.
- Insert a USB flash drive to export curve data in Excel format.
  Can set the scale range of the curve and the sampling time cycle of the data (unit: s).

Operation Interface

History Curve

- Supports viewing history curves, which can also be exported via USB flash drive.
- In addition to curves, historical data can also be displayed, and the function of searching data by date is supported.

Operation Interface

Fault Record

● Supports viewing the equipment alarm history record, including start time and end time. Fault records can be exported.

## Reservation Setting

● This equipment supports the reservation setting function. After setting the reservation time, turn on the reservation setting switch, and the equipment will automatically run at the reserved time to realize unattended operation.

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Settings

MAIN	FUNCTION SET 1	NEXT

LANGUAGE 中文 ENGLISH Русский

POWER MODE STOP COLD HOT

LIGHT OFF 5 M **USER PW** 0

KEY LOCK OFF ON
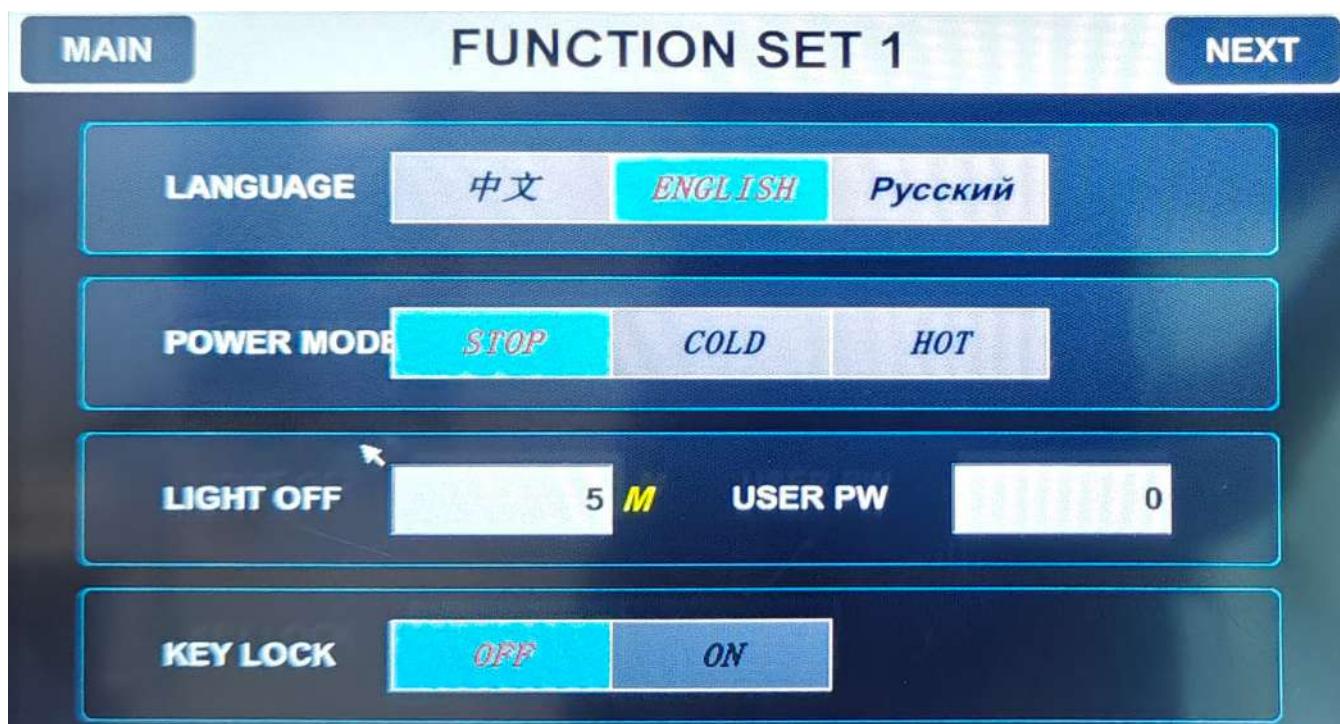
- Language selection: supports Chinese and English; other languages can be customized.
- Set the startup mode after power recovery:
    - Stop: The operation stops after power recovery.
    - Cold start: Restart the operation after power recovery.
    - Hot start: Continue the operation before power failure after power recovery.
- Screen backlight time setting: set to 0 to never turn off.
- Key lock function: after opening, the setting of all parameters is unavailable.

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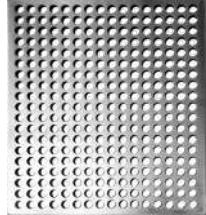
Technical Specification

Name	Programmable Temperature And Humidity Test Chamber			
Model	THT-80	THT-225	THT-408	THT-1000
Inner Chamber Volume	80L	225L	408L	1000L
Inner Chamber Size W*H*D（mm）	400*500*400	500*750*600	600*850*800	1000*1000*1000
Outer Chamber Size W*H*D（mm）	930*1450 *950	1070*1610 *1170	1170*1710 *1270	1550*1650 *1470
Temperature and Humidity Control Range	Temperature:-40℃~150℃/-70℃~150℃ Humidity: 20%~98%RH (other temperature and humidity specifications can be customized)			
Temperature and Humidity Fluctuation	±0.5℃；±2.5%RH			
Temperature and Humidity Deviation	Temperature：±0.5℃~±2℃; Humidity：±3%RH（＞75%RH）±5%RH（≤75%RH）			
Temperature and Humidity Uniformity	≤2℃；±3%RH			
Heating Rate	About 3℃/min (non-linear, no load)			
Cooling Rate	Average 1℃/min (non-linear, no load)			
Controller Resolution	±03℃；±2.5%RH			
Inner Wall Material	SUS304# stainless steel plate			

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Technical Specification

Outer Shell Material	Cold-rolled steel plate with paint baking
Thermal Insulation Material	High-temperature resistant high-density polyurethane foam insulation material
System Air Circulation Mode	Centrifugal fan - wide-band forced air circulation (top-out and bottom-in)
Refrigeration Mode	Mechanical compression refrigeration
Refrigerator	Hermetic piston-type France Tecumseh compressor or American Emerson scroll compressor
Refrigerant	R404A American Honeywell environmental protection refrigerant (R23+R404)
Condensation Mode	Air-cooled
Heater	Nickel-chromium alloy heating wire heater
Humidifier	Semi-hermetic steam humidification
Water Supply Mode	Automatic circulating water supply
Safety Devices	No-fuse switch, (compressor overload, refrigerant high and low pressure, over-humidity and over-temperature) protection switch, fuse fault warning system
Power Supply	220V AC ±10% 50Hz or 380V AC ±10% 50Hz

Standard Delivery

Name	Qty	Photo
Main Unit	1 pc	
Shelf	2 set	
Cotton Gauze	3 set	
Touch Screen Controller	1 set	
Schneider Ac Contactor	/	
Schneider Thermal Relay	/	
Megel Solid State Relay	/	

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Name	Qty	Photo
Schneider Intermediate Relay	/	
Sensor	/	
Time Relay	/	
Schneider Fuseless Switch	/	
Omron Over Temperature Protection	/	
Ritar Power Switch Button	/	
Motor	/	

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Standard Delivery

Name	Qty	Photo
Wind Mill	/	
Tecumseh Compressor	/	
Condenser	/	
Evaporator	/	
Wade Heater	/	
Wade Humidification Tube	/	
Marr Condenser Fan	/	

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Standard Delivery

Name	Qty	Photo
R404a Honeywell The Refrigerant	/	
Refrigeration Oil	/	
The Electromagnetic Valve	/	
Humidifying Water Cup	/	
Instruction Manual	1 copy	
Qualification Certificate	1 copy	
Warranty Card	1 copy	

Optional Delivery

Optional	Stainless steel shelf