Constant temperature and humidity chamber

This product series is widely used in the temperature variation tests, cold resistance tests and storage with low-temperature in the fields of aerospace, aviation, electronics, instrument, electric products, materials, parts and components and equipment to analyze and evaluate the property and performance of the samples under the simulated conditions.

<table>
<thead>
<tr>
<th>Model</th>
<th>CTH.100</th>
<th>CTH.225</th>
<th>CTH.500</th>
<th>CTH.800</th>
<th>CTH.1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workroom dimensions(cm)</td>
<td>45<em>45</em>50</td>
<td>50<em>60</em>75</td>
<td>80<em>70</em>90</td>
<td>80<em>100</em>100</td>
<td>100<em>100</em>100</td>
</tr>
<tr>
<td>Exterior dimensions(cm)</td>
<td>105<em>97</em>176.5</td>
<td>105<em>102</em>200</td>
<td>132<em>132</em>217</td>
<td>147<em>152</em>231.5</td>
<td>167<em>152</em>231.5</td>
</tr>
<tr>
<td>Temperature range</td>
<td>0 ℃ ~ +150 ℃</td>
<td></td>
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<tr>
<td>Humidity range</td>
<td>20 % ~ 98 % RH</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Temperature fluctuations</td>
<td>± 0.5 ℃</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature deviation</td>
<td>± 2.0 ℃</td>
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</tr>
</tbody>
</table>

**Structure characteristics**

- 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 Φ50, Φ80, Φ100...
- Heater: Ni-chrome electric heater
- Humidifier: stainless steel electric vapor generation type UL-type humidifier
- 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 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 refrigerant: environmental protection refrigerants

**Control system:**

TEMI880 touch-type temperature and humidity programmable controller

Operating interface: LCD display

Temperature and humidity controller: touch-type LCD controller

Setting mode: touching type

Running mode: setting-up running and programmed running

Program: 100 groups in 1000 sections

Resolution: temperature: ± 0.1 ℃; humidity: ± 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.

**Water supply**

Water supply mode: water lifted by pump

Water supply port: convenient front water supply port
Water storage tank: built-in stainless steel fixed-type water storage tank (with a volume about 15L)

- 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℃

- 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℃ and non-load condition.

Implementation and meet the standards
1. GB/T10586-1989 damp heat test chambers;
2. GB/T10589-1989 temperature test chambers;
3. GB/T10592-1989 high-temperature test chambers;
4. GB2423.3-93 (IEC 68-2-3) Damp heat test Ca: