

constant temperature and humidity chamber for stability testing

Constant temperature and humidity chamber with hot and cold constant temperature and humidity control function, can provide constant temperature and humidity environment for all kinds of stability test.

Constant Temperature and Humidity Chamber

Constant temperature and humidity chamber is widely used in pharmaceutical, food, cosmetic, microbial cultivation, biotechnology and other industries to assess the performance of raw materials, longevity and packaging adaptability.

Structure Characteristics

1. **Liner material:** using high quality SUS304 stainless steel, four corners arc design, corrosion resistance and durability, easy to clean.
2. **Shell structure:** cold rolled steel plate shell, surface electrostatic spraying, corrosion resistance.
3. **Double-door design:** the outer door sealed insulation, the inner door is a high-strength tempered glass door, you can observe the internal state of the experiment without affecting the temperature and humidity.



4. **Air circulation system:** optimized air duct design, to ensure uniform distribution of temperature and humidity inside the box.
5. **Adjustable shelves:** made of stainless steel, the height can be flexibly adjusted according to the need.
6. **Bright LED lighting:** built-in lighting device, easy to clearly observe the sample.
7. **Test hole design:** box side configuration diameter 50mm test holes, easy to external test instruments or insert sensors.
8. **Convection type:** with fan forced air convection.

Operating System and Control Function

1. **Humanized interface:** 7-inch true color touch LCD screen, real-time display of temperature and humidity and running time.
2. **Intelligent control system:** PID intelligent control algorithm, support fixed value operation and program segment operation mode.
3. **Multi-language support:** Chinese and English menu free switching.
4. **Data recording ability:** support storage of 250,000 operating data and 16,000 event records. The original data can be exported via U disk or non-tamperable PDF format report.
5. **Permission hierarchical management:** the administrator can create 5 sub-accounts, giving different operating privileges.

6. **Screen lock function:** to prevent unauthorized personnel misuse.
7. **Optional printing module:** support for micro thermal printer, real-time printing of temperature and humidity data, print interval can be set (optional).
8. **Remote IOT monitoring (optional):** configure 4G or Wi-Fi IOT gateway. WeChat small program remote real-time status, alarm push, data export.
9. **SMS alarm module (optional):** support GPRS cell phone SMS push alarm information, enhance the security of the test.
10. **Validation services:** support to provide 3Q, IQ, OQ, PQ validation documents and services.

Sensing and Refrigeration System

1. **High-precision sensors:** the original imported temperature and humidity sensors, accurate measurement, stable performance, long-term maintenance-free.
2. **High-efficiency refrigeration system:** adopts international brand compressor and environmental protection non-fluorine refrigerant. Frequency conversion technology, energy and water saving. Ensure long-term frost-free operation under non-ji limit conditions. Open the door to restore speed, system fluctuation is small.
3. **Call recovery mode optional:** stop, re-run or continue to run three ways to choose.

Safety and Alarm Protection System

1. Studio independent over-temperature protector.
2. Automatic operation fault detection and alarm display.
3. Temperature and humidity upper and lower limits exceed the difference sound and light alarm.
4. Water shortage automatic alarm and humidification system protection.
5. Sensor failure alarm.
6. Compressor overload protection.
7. Open the door alarm function.
8. Support for automatic start, stop, timed operation, call recovery and other intelligent operation mode.

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Model	HC10-160	HC10-250	HC10-350	HC10-510
Volume	160L	250L	350L	510L
Convection type	with fan forced air convection			
Temperature control	PID			

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Model	HC10-160	HC10-250	HC10-350	HC10-510
method				
Temperature Control Range	0°C to 70°C, 10°C to 70°C when humidifying, -20°C to 100°C customizable			
Temperature Resolution	0.1°C			
Temperature Accuracy	≤ ±0.3°C			
Temperature Uniformity	≤ ±0.8°C			
Humidity Control Range	15%RH to 98%RH			
Humidity Accuracy	≤ ±1.5%RH			
Humidification method	Water tank electric heating			
Total Heating and Humidifying Power	1600W	1950W	2350W	2750W
Compressor Power	250W	280W	315W	385W

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Model	HC10-160	HC10-250	HC10-350	HC10-510
Number of Stainless Steel Shelves	Standard with 3 layers, additional layers can be added			
External Water Tank Capacity	12L			
Chamber Dimensions	505x420x785mm	565x485x920mm	615x585x980mm	715x665x1070mm
External Dimensions	640x745x1470mm	700x810x1600mm	750x970x1660mm	850x990x1810mm
Weight	130kg	145kg	180kg	260kg