

Walk-in temperature and humidity testing chamber



Technical specifications

Main technical parameters

- Temperature range: -65~ +85 Deg C
- Up-and-down temperature range: -55~ +70 Deg C
- Temperature fluctuation: ± 0.5 °C
- Temperature uniformity: ± 2.0 °C
- Humidity deviation: $\pm 3.0\%$ RH (over 75%RH)
- $\pm 5.0\%$ RH (lower than 75%RH)
- Temperature and humidity control method: BTHC
- Ambient temperature: +5~+35°C
- Power(V): AC 380 $\pm 10\%$ V 50HZ ± 0.5 HZ

Implementation standards

- GB/T5170.2-2008 Temperature test equipment
- GB/T5170.5-2008 Humidity test equipment (C)
- GB/T2423.1-2008(IEC68-2-1) testing A, Low temperature test method
- GB/T2423.2-2008(IEC68-2-2) testing B, High temperature test method
- GB/T2423.3-2006(IEC68-2-3) testing Ca, Constant thermal humidity test (C)
- GB/T2423.4-2008(IEC68-2-3) testing Db, Thermal humidity test (C)
- GJB150.3A-2009(MIL-STD-810F-2000) High Temperature test
- GJB150.4A-2009(MIL-STD-810F-2000) Low Temperature test
- GJB150.9A-2009(MIL-STD-810F-2000) thermal humidity test (C)

Equipment noise: ≤ 75 dB (testing from one meter in front of the door)

Standard configuration: Electrothermal film glass observation

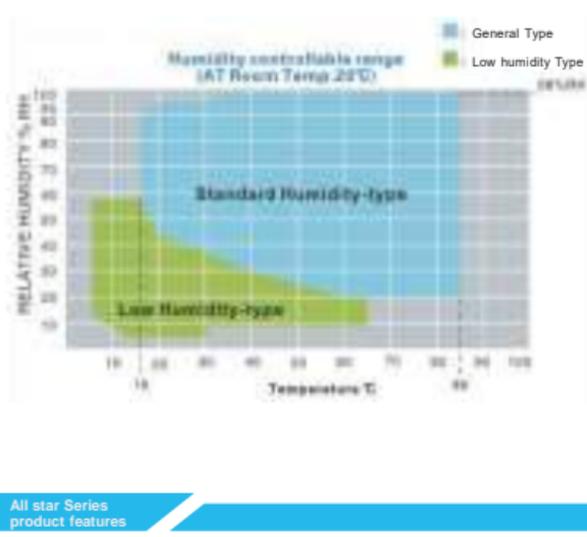
1 (single) or 2 (double door); Cable hole ($\Phi 100$) 2 PCS;

Lighting 1 pcs (2.5~4)m²; Sample power control terminal

1 (C), only C type equipment equipment with this.

Environmental chamber	Model	SMC-080-WT	SMC-120-WT	SMC-180-WT	SMC-250-WT	SMC-340-WT	SMC-400-WT
Test volume	L	8.0m ³	12.0m ³	16.0m ³	25.0m ³	34.0m ³	40.0m ³
Temperature range	°C	-60°C ~ +80°C/+100°C (Split Composite Structure) (A:0°C; B:20°C; C:40°C; D:60°C)					
Humidity range	%RH	20~ 98					
Dew-point temperature	°C	+20~ +85					
Dew-point temperature range	°C						
Relative humidity fluctuation	%RH	± 1.0 ~ ± 5.0					
Temperature change	°C	Fluctuation ± 0.1 ~ ± 0.5 ; Evenness ± 0.5 ~ ± 3.0					
Heating rate	°C/min	3.0°C~5.0°C					
Cooling rate	°C/min	-0.7°C~+1.5°C					
Test space dimensions	Wide)mm	1970	3020	4070	3020	4070	5120
	Deep)mm	1970	1970	1970	4070	4070	4070
	High)mm	2100	2100	2100	2100	2100	2100
External dimensions	Wide)mm	2900	3920	4970	3920	4970	6020
	Deep)mm	2300	2300	2300	4370	4370	4370
	High)mm	2400	2400	2400	2400	2400	2400
Power		400V $\pm 10\%$, 3/N/PE, 50HZ					
Rated Power	Kw	21.8	23.5	26.5	29.5	31.5	33.5
Sound pressure level	dB(A)	65	65	65	70	70	70
Cooling method		Water-cooled					
Control system	pcs	The South Korea SAMWON TEM1500.TEM12500.TEM12700					

Temperature and humidity control chart

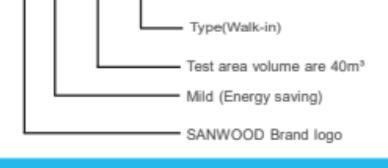


All star Series product features

- All star climatic Series in improving the performance and reliability, achieving the simply operate and automatic running, while greatly reducing the power consumption
- Product advantage**

- Using the assembled type library board with easily transportate and on-site installation, which can in line with the user needs to provide a variety of sizes and specifications of the product.
- Scientific air distribution design, making the chamber temperature and humidity even, to avoid any dead end.
- Can be customized according to user requirements, to ensure the applicability and high efficiency of the equipment, energy saving.
- Using the unique refrigeration loop, saving energy consumption

Model description



Structure characteristics

Structure design

- Shell: Spray galvanized color steel plate, the surface electrostatic spray processing
- Liner: stainless steel SUS 304.
- Thermal insulation layer: Polyurethane foam board thickness 100mm.
- Seal: Toshiba high purity silicon rubber raw materials, effectively prevent aging.
- Heater: Ni Cr alloy electric heater
- Humidifier: Outer tube: SUS316 stainless steel seamless pipe Internal heating wire: Ni Cr alloy wire.

- Pin hole
- $\Phi 100$ mm (standard equipment)
- $\Phi 80$ mm $\Phi 160$ mm (optional equipment)
- Super large observation window



Observation window: Visual range: W400*H800mm Console/ controller

Laboratory door upper state indicator light (optional)

When a person enters into the lab working, the light on the door of the laboratory indicates that in the room.

Modular design advantage

- Shorten the delivery time and installation time
- Easy to assemble and pass the circulating air duct system to facilitate the plug and play.
- The modular structure is convenient for quality control.
- High reliability from a high level of design conception

Handling ramp (Option)

For carrying heavy loads to the laboratory, there are cylinder drive automatic type and handle type



Pure water purifying device(C)



Electronic display (optional)



Display the temperature and humidity in the laboratory

Burglary indicator (optional)

When a person enters into the lab working, the light on the door of the laboratory indicates that in the room.

Preparation room (optional)

When opening or closing the door of the laboratory, the effect of temperature and humidity can be minimized, and it can also be used as the sample measuring chamber.

Door curtain (optional)

Preventing the temperature and humidity conditions in laboratory when opening and closing the laboratory doors.

Floor strength (optional)

When using the cars and other moving samples, in order to spread the weight of the concentrated, using the reinforced floor to prevent the floor deformation. Increase the number of floor support, spreading the load of the weight.

Wind speed variable device (optional)

The wind speed in the constant temperature and humidity chamber can be 4 speed change, then reduce the influence to the specimen.

Ceiling air distribution (optional)

Reduce the wind speed in the laboratory to reduce the impact to the sample, and making the wind speed in the room is uniform at the same time.

* When the blowing port is installed, the effective height of the room is reduced 200mm.

All star series product features

Refrigeration design

- Modular production, reliable quality, easy maintenance.
- Piping vibration adopts 45% silver content of silver solder , To prevent joint leakage.
- Enough space easy to operate.
- Through the nitrogen when welding , ensure no tube oxidation.
- Take all kinds of shock absorption process.
- Take various anti-rust process.

- Pressure relay
- EMERSON
- Danfoss
- America EMERSON or Denmark DANFOSS

Mute cover



Germany Bizer compressor (standard)

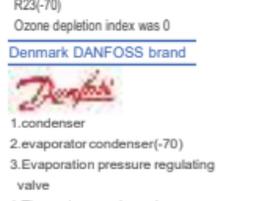
Germany compressor (option)

Mute cover: reduce noise 10 db (option)

Evaporator

Design high efficiency finned heat exchanger

Electromagnetic valve



Italy CASTEL

Refrigerant

R404A R23(-70)

Ozone depletion index was 0

Denmark DANFOSS brand

- condenser
- evaporator condenser(-70)
- Evaporation pressure regulating valve
- Thermal expansion valve
- Dry filter
- Condensation pressure regulating valve (water-cold)

Control System

Controller



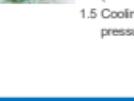
- 1.5.7" 640*480 lattice. TFT LCD display
- 1200 programs , program can cycle
- RS - 485 interface, with remote communication function.
- SD card storage test data, about 7500 days (Sampling period: 5min)
- operating language: Chinese or English

Recorder(option)



- Large screen LED display
- High reliability of industrial records requirements

The sample power control terminal



- When the terminal safety protection device works, the power supply of the electrified sample is controlled through the connecting terminal.

Safety protection device

1.Compressor

- Compressor overpressure
- Compressor motor overheating
- Compressor motor over-current
- Condenser fan overheating (air-cooled)
- Cooling circulating water pressure shortage (water-cold).

2. Waterway

- Heating tube dry.
- Abnormal of water supply.
- Abnormal drainage.

3. Test samples of protection

- Adjustable overtemperature protection.
- Air conditioning channel over temperature limit.
- controller set overtemperature shut down alarm.
- sample terminal protection.

4. Electric control

- The fan motor overheating.
- Total power phase sequence and lack of phase protection.
- Leakage protection.
- Load short circuit protection.

The Experience you Rely on...

Sanwood Environmental Chambers was established in 1995, fully integrated Taiwan and Japan technologies. We have been listed in the real estate and reliable climate test chamber technology since established. And has become a private science and technology enterprise in Dongguan, Guangdong Province, which passed the ISO9001:2008 quality system certification.

Our products upgrade constantly and our customers come portable batteries, power batteries, battery lithium batteries, lead-acid, new energy vehicles, electric bicycles, electric tools, electric systems, solar, military, universities research and other technology industries fields.

Having experienced nearly 20 years efforts, we have successfully developed a series of products:

- High and low temperature test chamber
- explosion-proof type thermal shock chamber
- air explosion-proof type test chamber
- variable temperature wet humidity chamber
- weather real estate test chamber
- battery thermal abuse test box
- explosion-proof type test box
- Temperature/vibration/Vibration integrated test chamber
- blast test box
- vibration table
- rain test chamber
- vacuum test box
- corrosive liquid test chamber
- high temperature oven
- evaporator immersion test box

All of products meet GB31361-1, IEC6133-1, GCT1743-1, UN38.3, UL2054 Standard. And we have had a good cooperation with ATL, Sony, Sanwata, Deasy, Samsung, BYD, Toyota, Yulong Bus, Nissan, Guangdong Province entry-exit, Tsinghua University, Harbin University, Chinese Academy of Sciences, Central South University Successfully.

Enterprise vision:

Sanwood Technology has established a large production base in Dongguan after many years efforts. The plant area reached more than 12000 square meters. The foreign trade branch and foreign service agencies were established in 2010. And branches successively established in Taiwan, South Korea, Hubei, Beijing, Henan. Excellent products and great after sales service make us win the recognition and trust of customers. Products are exported to more than 30 countries, such as Russia, Singapore, the United States, Turkey, Denmark, Vietnam, India, Malaysia, Kazakhstan, Austria, Canada, etc. In the age with fierce competition, Sanwood should strive to better and aim to become the leading brand in the safety and reliability environmental test equipment industry all over the world.

