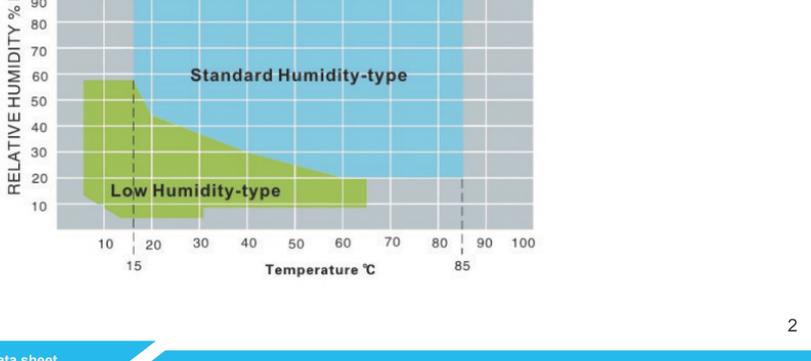


Rapid temperature change (damp heat) vibration comprehensive test chamber



Technical specifications
<ul style="list-style-type: none"> Main technical parameters Temperature range : -70~ +150 Deg C Up-and-down temperature range: -55~ +70 Deg C Temperature fluctuation: ± 0.5 C Temperature uniformity: ± 2.0 C Temperature deviation: ± 2.0 C Humidity deviation: $\leq \pm 3.0\%$ RH (over 75%RH) Temperature and humidity control method: BTHC Ambient temperature: +5~+35 C Power(V): AC 380$\pm 10\%$V 50HZ± 0.5HZ Equipment noise: ≤ 75 dB(testing from one meter in front of the door) Standard configuration: Electrothermal film glass observation 1pcs; Cable hole ($\Phi 100$) 1 PCS; Sample rack 2 sets; Illuminator 1 pcs; Sample power control terminal 1pcs; (C), only C type equipment equipment with this.
<ul style="list-style-type: none"> Implementation standards GB/T5170.2-2008 Temperature test equipment GB/T5170.5-2008 Thermal 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(IEC68-2-30) 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



Data sheet

Model	Unit	SM-KS-190-40-5	SM-KS-190-70-5	SM-KS-335-40-5	SM-KS-190-70-5	SM-KS-600-40-5	SM-KS-600-70-5	SM-KS-990-40-5	SM-KS-990-70-5	SM-KS-1540-40-5	SM-KS-1540-70-5
Volume	L	190		335		600		990		1540	

Temperature Test Parameters

Temperature range	C	-40/+180	-70/+180	-40/+180	-70/+180	-40/+180	-70/+180	-40/+180	-70/+180	-40/+180	-70/+180
Temperature fluctuation	C	± 0.1 C~ ± 0.5 C									
Temperature uniformity	C	± 0.5 C~ ± 2.0 C									
Heating/cooling rate	%r.h	7.0/8.0	7.5/7.5	6.5/6.8	6.8/6.7	6.0/6.5	6.0/6.0	6.1/6.7	6.1/6.0	6.0/6.3	6.0/5.0

Climate test parameters

Temperature range	C	+10~+95									
Humidity range	%r.h	10~98									
Dew point temperature	C	-3~94									
Humidity fluctuation	%r.h	± 1.0 ~ ± 3.0									
Temperature fluctuation	C	± 1 ~ ± 3									
Temperature uniformity	C	± 0.5 ~ ± 1.0									

Inner dimension	mm	580x450x750	580x765x750	800x800x950	1100x950x950	1100x1475x950
External dimensions	mm	870x1280x1775	870x1595x1775	1090x1660x1995	1390x1855x1995	1390x2380x1995

power	400V $\pm 10\%$,50HZ,3/N/PE										
rated power	KW	8	10	8	10	11	17	23	26	23	26
cooling method	Water-cooled										

chamber 10 C/min	Model	SM-KS-270-40-10	SM-KS-270-70-10	SM-KS-480-40-10	SM-KS-480-70-10	SM-KS-800-40-10	SM-KS-800-70-10	SM-KS-1300-40-10	SM-KS-1300-70-10
chamber 15 C/min	Model	SM-KS-270-40-15	SM-KS-270-70-15	SM-KS-480-40-15	SM-KS-480-70-15	SM-KS-800-40-15	SM-KS-800-70-15	SM-KS-1300-40-15	SM-KS-1300-70-15

volume	liter	270	480	800	1300
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Temperature Test Parameters

Temperature range	Model	-40/+180	-70/+180	-40/+180	-70/+180	-40/+180	-70/+180	-40/+180	-70/+180	
Temperature fluctuation	C	± 0.3 ~ ± 0.8								
Temperature uniformity	C/min	± 0.5 ~ ± 2.0								
Heating/cooling rate	C/min	10.0/12.5	10.0/14.5	10.0/12.5	10.0/11.0	12.0/12.0	12.0/12.0	12.0/11.5	11.0/10.5	
Heating/cooling rate	C/min	16.0/16.0	17.0/18.0	16.0/18.0	17.0/15.0	16.0/18.0	16.0/15.5	16.0/17.0	16.0/14.5	

Climate test parameters

temperature range	C	+10~+95									
Humidity range	%r.h	10~95									
Dew point temperature	C	-3~94									
Humidity fluctuation	%r.h	± 1.0 ~ ± 3.0									
Temperature fluctuation	C	± 0.1 ~ ± 0.5									
Temperature uniformity	C	± 0.5 ~ ± 1.0									

Inner dimension	mm	580x620x750	800x650x950	1100x800x920	1100x1300x920
Width x depth x height	mm	870x1980x1775	1090x2480x2025	1390x2675x2020	1390x3200x2020

power Supply	400V $\pm 10\%$,50HZ,3/N/PE										
Power	KW	8/12	14/16	16/20	20/24	28/35	34/44	28/35	34/44		
cooling method	water cooling										

SUPER STSAR series features

CLIMATE STSAR series has advanced features in terms of uniformity of temperature variation

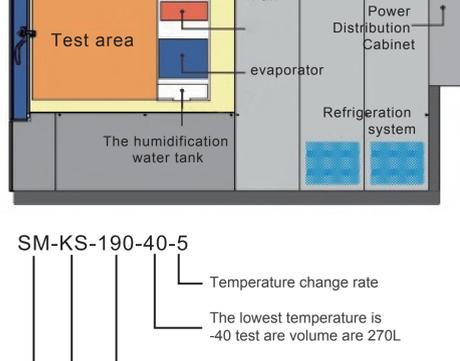
Customer first

1. Rapid change temperature test chamber realize that using the specimen temperature to control the slope. In order to maintain a fixed sample temperature change ratio, we adopt the sample temperature control technology, rapid temperature change technology and slope control technology and so on.

2. Climate for you to open a new generation industry standards test chamber.

Products Features

- Large viewing angle and full heating observation window
- High stability full color touch screen
- Pin holes on both sides
- Sample holder capable of conveniently adjusting height
- Triple independent over temperature protection
- Safety sample terminal
- Disassemble operation panel for easy maintenance



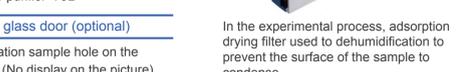
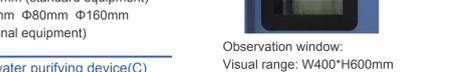
SM-KS-190-40-5

- Temperature change rate
- The lowest temperature is -40 test are volume are 270L
- 480L,800L,1000L
- Rapid temperature change test chamber Code
- SANWOOD Brand logo

Structure characteristics

Structure design

- Shell: Spray galvanized color steel plate, the surface electrostatic processing
- Liner: stainless steel SUS 304
- Thermal insulation layer: Polyurethane foam board and glass fiber
- 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.
- Sample holder: 40kg/ layer * 2 layer (standard configuration) 80kg/ layer ; (20kg/ layer Total bearing ≤ 240 kg (optional)



Refrigeration system

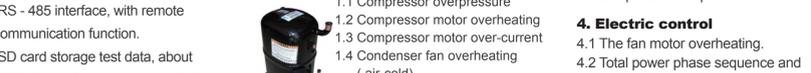
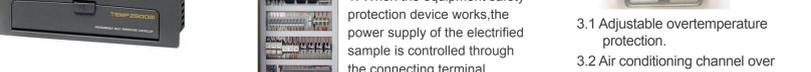
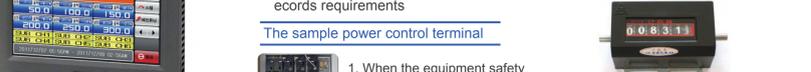
Refrigeration design

- Modular production, reliable quality, easy maintenance.
- Silver brazing welding vibration pipe with a silver content of 45%, to prevent the welding leak effectively.
- Adequate space position, easy to operate.
- Welding through nitrogen, ensure the inner pipe not nitriding.
- Take a variety of techniques to decouple shock.
- Take a variety of techniques to anti-corrosive.



Control System

Controller	Recorder (option)
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The Experience you Rely on...

Sanwood Environmental Chambers was established in 1995, which integrated Taiwan and Japan technologies. We have been focusing on the most secure and reliable climatic test chamber technology since established. And has become a private science and technology enterprises 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
- an explosion-proof type temperature test box
- walk-in temperature and humidity chamber
- weather resistance test chamber
- battery thermal abuse test box
- explosion-proof type hot box
- Temperature&humidity&Vibration integrated test chamber
- dust test box
- vibration table
- rain test chamber
- ozone test box
- xenon lamp test chamber
- high temperature oven
- seawater immersion box

All of products meet GB31241, IEC6133, QCT/743, UN38.3, UL2054 Standard. And we have had a good cooperation with ATL, Sony, Sunwood, Desay, Samsung, BYD, Toyota, Yufong Bus, Nissan, Guangdong Province entry-exit, Tsinghua University, Henan 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, Suzhou, Hunan, Hubei, Beijing, Henan. Excellent products and good 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 thrived little by little and aims to become the leading brand in the safety and reliability environmental test equipment industry all over the world.

