

Model	KS-UV340A
Tilting tower type UV aging box	

Technical Solutions

- 1、Advanced factory, leading technology
- 2、Reliability and applicability
- 3、Environmental protection and energy saving
- 4、Humanized and automated system network management
- 5、Timely and perfect after-sales service system with long-term guarantee

DONGGUAN KESION PRECISION INSTRUMENT CO.,LTD

Specification parameters



Leaning Tower Type

(The above pictures are for reference only, please prevail in kind)

Remark:


This UV aging tester contains irradiation intensity sensor, irradiation intensity size automatically adjusted, need to confirm the use of irradiation lamp type.

Main functions of the equipment:

This product adopts fluorescent UV lamp that can best simulate the UV spectrum of sunlight, and combines temperature control and humidity supply devices to simulate high temperature, high humidity, condensation and dark cycle of sunlight (UV section) that cause damage to materials such as discoloration, brightness and strength loss; cracking, peeling, chalking and oxidation, etc. Meanwhile, the synergistic effect between UV light and humidity makes the single light resistance or single moisture resistance of materials weaken or fail.

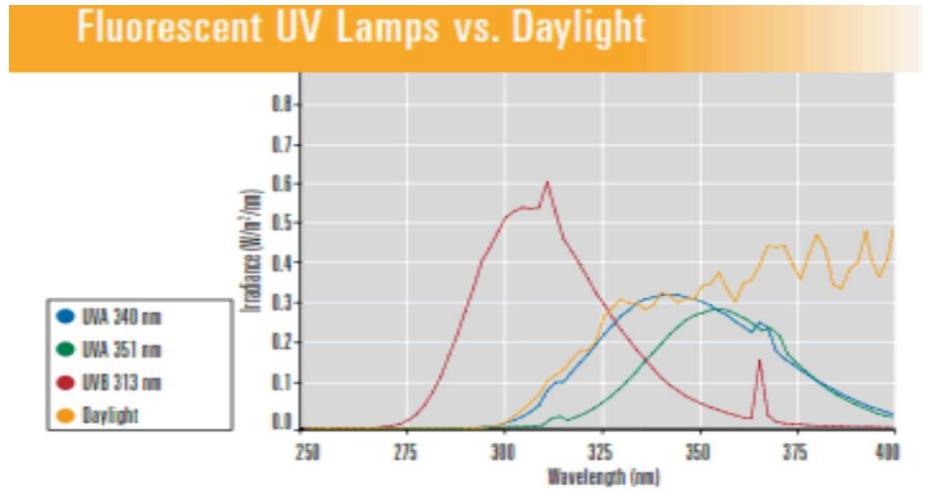
It is widely used to evaluate the weather resistance of materials by weakening or failing the single light resistance or single moisture resistance.

UV weather resistance testing machine performance indicators and the composition of each system:

Model	KS-UV340A	
Sample rack frame size	493×300 (mm) W×H Total four pieces Leaning Tower Type	
		
Sample template size	75×150*2 (mm) W×H Each sample rack frame can hold 12 block sample templates	
Shape space	约 1300×1480×550 (mm) W×H × D	
Center distance inside the lamp	70mm	
Distance between the test surface and the center of the lamp	50±3mm	
Number of nozzles	4 in front and 4 in back for a total of 8	
Spraying pressure	70~200Kpa adjustable	

UV-B

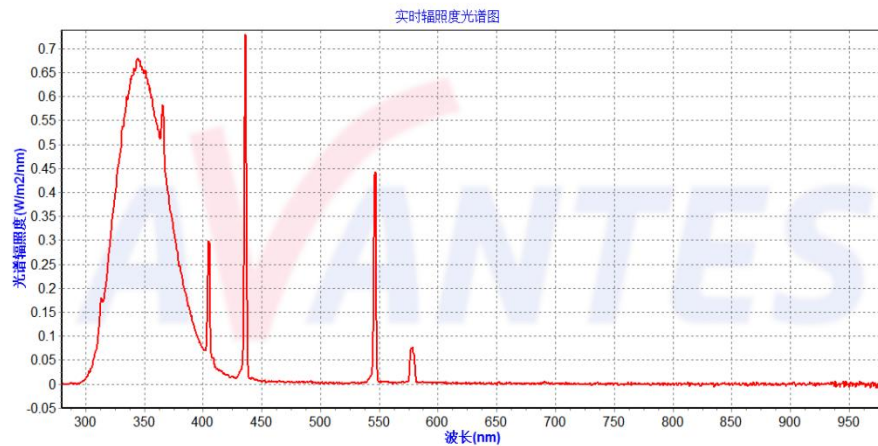
Lamp irradiation distribution map



Standard machine irradiation intensity 0 ~ 0.9W/m².313nm adjustable

UV-A

Lamp irradiation distribution map




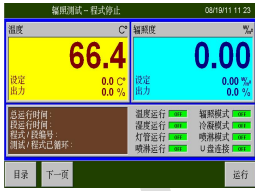
Standard machine irradiation intensity 0 ~ 0.95W/m².340nm adjustable

Lamp length	1220mm
Lamp power	40W
Lamp life	More than 1500h
Number of lamps	4 front and 8 rear sticks each
Weight	80 kg
Maximum power	3 KW
Maximum current	15A

<p>Power supply conditions and power supply</p>	<p>AC 220V single-phase two-wire + protection grounding; voltage allowable fluctuation range $\pm 10\%V$; Allowable fluctuation range of frequency $50\pm 0.5\text{HZ}$; TN-S mode power supply or TT mode power supply Protection grounding resistance less than 4Ω The user is required to configure the corresponding capacity air or power switch for the equipment at the installation site, and this switch must be independently controlled for the use of this equipment</p>
<p>Performance Indicators</p>	
<p>Environmental conditions of use</p>	<p>The value measured under the conditions of ambient temperature $+25^{\circ}\text{C}$, relative humidity $\leq 85\%$ and no specimen in the test chamber.</p>
<p>Temperature and humidity range</p>	<p>Irradiation temperature: $50\sim 70^{\circ}\text{C}$ Condensation temperature: $\text{RT}\sim 60^{\circ}\text{C}$ Spraying temperature: Room temperature Relative humidity: condensation cycle $\geq 85\% \text{RH}$; irradiation cycle $\cong 75\% \text{RH}$</p>
<p>Main technical parameters</p>	<p>Temperature resolution: 0.01°C Temperature deviation: $\pm 1^{\circ}\text{C}$ Temperature uniformity: 2°C Temperature fluctuation: $\pm 1^{\circ}\text{C}$ UV lamp can choose UV-A / UV-B lamp, if no special instructions factory timing configuration UV-A lamp</p>

<p>Test meets criteria</p>	<p>1.GB/T23987-2009/ISO 11507:2007 Artificial climate aging exposure of color and varnish coatings (UV)</p> <p>2.GB/T14522-2008 artificial climate aging test method for plastics, paints and rubber materials for mechanical industry products Fluorescent UV lamp;</p> <p>3.GB/T16422.3-2014/ISO4892-3:2006 Laboratory light source exposure test method for plastics Part 3 fluorescent UV lamp;</p> <p>4.ASTM G154-2006</p> <p>5.ASTM G153</p> <p>6.GB/T9535-2006/IEC 61215:2005 Terrestrial crystalline silicon photovoltaic modules-design qualification and sizing (10.10 UV pretreatment test part)</p>
<p>Heating rate</p>	<p>Irradiation temperature RT→+70℃≤45 min</p> <p>Condensation temperature RT→+60℃≤45 min</p>
<p>Structural features</p>	
<p>Box structure</p>	<p>The inner box of the machine is made of SUS304# stainless steel</p> <p>The outer box of the machine is made of SUS304# stainless steel (cold-rolled steel plate baking paint treatment is optional)</p> <p>The irradiation lamp adopts uniform arrangement on both sides to ensure uniform irradiation of the tested parts and obvious effect</p> <p>Water tank depth 25mm, water depth can be controlled</p> <p>The test sample frame is made of stainless steel welding</p> <p>The test sample is fixed by spring buckle, easy to install</p> <p>The bottom of the test chamber is installed with fixed casters and foot cups, convenient for moving and positioning</p> <p>Water supply mode can be selected from manual or automatic mode, easy to use</p> <p>Special isolated irradiation heating device and air supply system to ensure uniform heat in the test space</p> <p>The surface of the test sample is directly composed of the inner wall of the test chamber, condensation condensation more</p> <p>Specially made spraying device and automatic nozzle, water pressure can be adjusted</p> <p>The lid of the box is two-way flip type, easy to open and close</p>

Control Panel	Power switch, alarm, irradiation accumulator, irradiation current meter, irradiation intensity adjustment knob, controller
Power distribution control cabinet	Heat dissipation fan, distribution board, controller
	
Lamp arrangement method	Adopt scale-type heating tube, multi-wing centrifugal fan air circulation, temperature controller output control non-contact SSR, to achieve temperature balance, long-term stable operation
Condensing heating system	Water vapor heating method is used, and the P.I.D. controls the heating to achieve temperature balance.
Hydration system	<p>Manual, automatic two kinds of water replenishment control system, only need to connect the tap water pipe can be automatically controlled, easy to use</p> <p>Note: If the tap water is too much impurity or with acid and alkaline need to add a filter in the water inlet</p>
Drainage system	<p>Drain valve control device, manual drainage method</p> <p>Automatic overflow control system for water level</p>
Spraying system	<p>Adopt booster pump to control its spraying water pressure</p> <p>Fully automatic control of its spraying time and spraying cycle</p> <p>Precise overflow device of water level</p>

Electrical control system	
Controller	<p>Imported liquid crystal display touch screen temperature controller Q-TEST</p> <p>Separate controller irradiation temperature, condensation temperature, irradiation time</p> <p>Condensation time, spraying time and working cycle</p> 
Irradiance meter / solar eye (optional)	<ol style="list-style-type: none"> 1. Model: KS-UVI 2. Detection wavelength range: 200nm~480nm. 3. Irradiance measurement range: 0.4W/m2~1.6W/m2 4. Operating temperature range: room temperature --- 70 degrees 5. Sensitive area: Φ12mm 6. Appearance size: 30*30*35mm 7. The illuminance sensor can measure and control the irradiance energy in real time and feed back to the controller, which adjusts the PID control in real time according to the set value to ensure that the set value and the actual value are one to one.
Temperature input mode	Human-machine interface, touch input

Program capacity and control function	<p>Available program volume: 120 groups maximum, 1 program can be combined by 1~99 segments</p> <p>Available memory capacity: 1200 segments, repeatable commands: each command up to 999 times, program slope setting can be set by the time axis, the program can be set to link between the use, the production of the program to adopt the talk type operation is simple</p> <p>With edit, clear, insert and other functions, 4 groups of time signal output control (can control the object to be measured ON / OFF action)</p> <p>With 9 groups of PID parameters setting, program execution with jumping and holding function, display curve, data acquisition; date and time adjustment function; key and screen lock (LOCK) function, can be connected to a computer</p>
Communication	RS-232 communication interface, can be used as a monitoring and remote control system, record test data
Operation method	Program method / Constant value method
Setting method	Chinese/English interface, touch input
Setting range	Maximum temperature range upper and lower limit 5°C
Display Resolution	Temperature: 0.01°C; Time: 1min.
Power failure memory function	Power failure recovery mode can be set as: hot start / cold start / stop
Appointment opening function	Can be set at will to start the time, turn on the power after the time to automatically run the machine
Temperature measurement body	PT100 type platinum resistance

Curve recording function	With RAM with battery protection, it can save the set value of the device, the sampling value and the time of the sampling moment; the maximum recording time is 60 days (when the sampling period is 1.5min)
Software usage environment	IBM PC compatible machine, P II or above CPU, 128M or above memory, Simplified Chinese Windows 2000 or Simplified Chinese Windows XP operating system
Temperature control method	Anti-integral saturation PID, BTC balanced temperature control method (temperature test equipment)
Safety protection devices	
Test chamber	Extreme over-temperature protection, water shortage protection
Booster pumps	Water shortage protection, water pressure overload protection
Heating System	Heater dry burn, abnormal water supply, abnormal drainage
Power supply	Earth leakage protection, overload and short circuit protection
Storage environment requirements	The ambient temperature of the equipment should be maintained within 0°C ~ +45°C
Installation site requirements	Test box left and right and back side wall plate from the wall shall not be less than 600mm, the front distance from the wall shall not be less than 800mm equipment transportation, into the doorway or channel, elevator, etc., whether you can enter, so as not to affect the progress of your project.

Configuration List

Serial number	Name	Specification / Model	Brands	Remarks
1.	Test controller	Q-KS	KESIONOTS	
2.	Test chamber	SUS304#Stainless steel welding	Homemade	
3.	Test chamber sealing lid	SUS304#Stainless steel welding	Homemade	
4.	UV lamp	40W	Q-LAB UVA340, USA	
5.	Ballast	015626	Sanxiong	
6.	Heat sink fan	JF12038HA2HSL	Sunon Taiwan	
7.	Temperature limiter	TS-320SB-C	Korea Rainbow	
8.	Heater tube	1.1KW	Taiwan Taitoku	
9.	Water Quality Filter	Fan nozzle	Three ViewsTaiwan	
10.	Spraying device		Homemade	
11.	Spraying water pump	BJZ037	Lingxiao Pump	
12.	Solid State Relays	SSR-40A	Schneider France	
13.	AC Contactors	1810	Taiwan Andriy	
14.	Intermediate Relay	LY2N-J	OMRON Japan	
15.	Self-locking switch	R21	Taiwan Punic	
16.	Temperature Sensor	PT100	Songyang, Taiwan	
17.	Solenoid Valve	ZCA-DN15	Taiwan Juliang	
18.	Liquid level switch	FCH11PDD03P	Taiwan Vanyi	
19.	Sample Rack	Stainless steel processing	Homemade	
20.	Irradiation Regulator	680K 1/4W	Taiwan Tendency	
21.	Irradiation regulation module	SSR-40VA	台湾阳明	