LabCompanion®

Ultraviolet accelerated weather resistance tester Q8-UV3

Custom solutions

The UV light climate resistance test is suitable for the aging test of the resistance to sunlight and artificial light sources. The test simulates the destructive effect of sunlight, moisture and temperature on materials; material aging includes fading, light loss, strength reduction, cracking, peeling, pulverization and oxidation. By simulating sunlight, condensation and natural humidity, the sample can reproduce the damage that may occur outdoors for several months or days in the simulated environment for several hours or even several years

In the UV light climate test, the fluorescence of the UV lamp can reproduce the effects of sunlight, and condensation and water spray systems can reproduce the effects of rain and dew. The temperature was controllable throughout the test cycle.

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▶ Technical characteristics

▶ Performance：

Type：OVEN-1875C

1. The center distance of the lamp: 70mm

2. The nearest parallel surface distance between the specimen and the surface of the lamp is about 50mm

3. Wavelength range: UV-A wavelength range is 315~400nm

4. Radiation intensity: 0.89 W/m2 / 340nm is often used, and 0.1~1.0m2/340nm is adjustable

5. Adjustable temperature uniformity: ± 2.5℃

6. Temperature fluctuation degree: ± 0.5℃

7, light temperature range: 50℃ ~70℃ / temperature tolerance is ± 2.5℃

8. Condensation temperature range: 40℃ ~60℃ / temperature tolerance is ± 2.5℃

9. Measurement range of blackboard thermometer: 30~80℃ / tolerance is ± 1℃

10. Temperature control mode: PID self-setting temperature control mode

11. Humidity range: about 45%~98%R.H

12, the tank requirements: the water depth is not more than 25mm, and there is a water supply automatic controller

The recommended instrument use environment is: 5~35℃, 40% ~ 85% RH, and 300mm distance from the wall

Working volume：264L

Dimensions（mm）	w	h	d
Use full	1100	375	640
Over all	1300	1635	700

▶ Function of UV Accelerweather test tester:

1. The condensing device of QUV ultraviolet accelerated aging tester simulates the influence of outdoor humidity
2, there is an electronic eye irradiance control system
3. The QUV ultraviolet accelerated aging test machine can measure the temperature accurately through the blackboard temperature sensor, and can reproduce the test results repeatedly
4, humidity, condensation, water spray can be recycled continuous test

▶ Condenser system

All Q8 products use the condensation system, and the Q8 / UV3 machine can spray water directly to the surface of the test sample.

The（1）Q8 condensing system has a very important feature, and the closure of the

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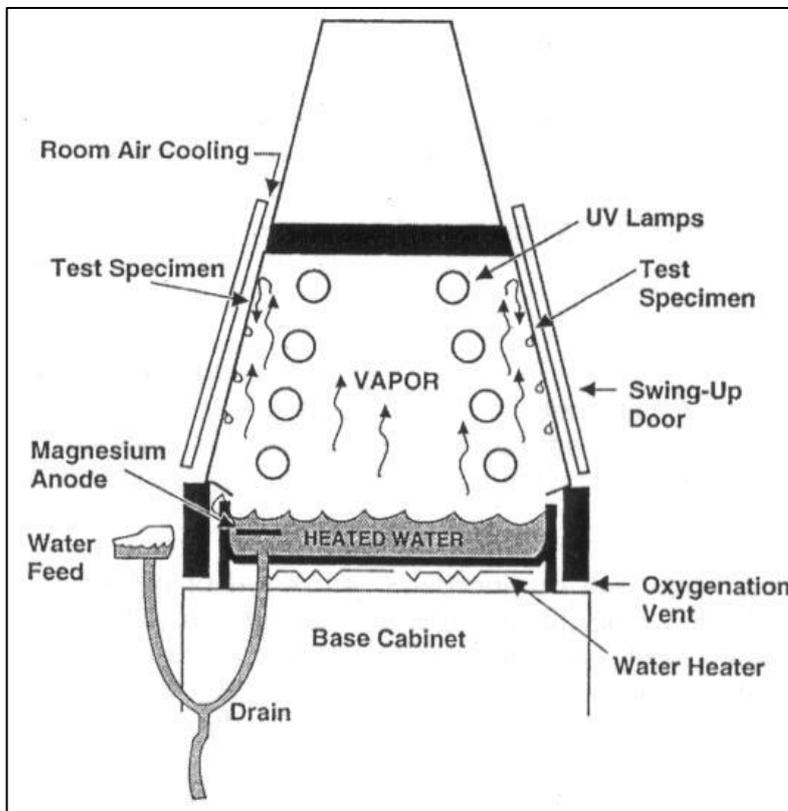e-mail:info@lab companion.cn

panel in the test box retains the water vapor in the test box. The back side temperature of the panel is slightly cooler than the front side of the panel. This temperature difference will cause the condensation of water on the panel.

⑵ The door outside the test box does not have to be sealed, but allows the indoor air to reach the back of the test panel. However, the door outside the test box can regulate the current convection of cold air and reduce the impact of indoor temperature changes.

⑶ Thicker insulating materials, like wood or rubber, may show insufficient condensation because of too much heat transfer. To increase condensation, increase heat transfer, move the machine to an air-conditioned place or increase the temperature of the condensation cycle.

⑷ Heating water under the water tray during the condensation cycle. The steam fills the chamber to 100% equilibrium humidity. Water vapor constantly condenses on the test plate, and the back of the test plate is kept low temperature. The condensing water flows through the test plate and then flows back into the water plate.

⑸ The condensate water on the test plate is of high purity because the water source is distilled water. The vent on the top of the water tray ensures that the steam contains oxygen and that some vapor will run away from this hole or off the plate.

Operation diagram of the condensation system

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