

AT 15 Color Fastness to Sunlight Test Chamber

AT 15 Color Fastness to Sunlight Test Chamber is a powerful, highly cost-effective, easy to use and convenient to maintain color fastness to light chamber. It uses a air-cooled xenon lamp imported from America and IR window filter (both are imported from America) , to simulate more real and much better the full spectrum sun light of outdoor through window, ensure the test results obtained from laboratory have a perfect correlation with indoor application. Furthermore, the samples holder is designed with a special rotating drum to ensure each sample can obtain the same and uniform irradiance during the whole test.

AT 15 can meet with all standards requirements from different fields, it can hold 35 pieces samples, not only has spray function, but also can control the relative humidity of working room.

Operator can set all required test parameters (Irradiance, test time, BPT, BSTetc) through the touch screen, and can check its running status at any time. All running parameters can be exported to computer directly through the USB interface.

Standards :

- ISO 105-B02 (EN) (DIN) 《Textiles-Tests for colour fastness- Part B02: Colour fastness to artificial light: Xenon arc fading lamp test 》
- ISO 105-B04 (EN) (DIN) 《Textiles - Tests for Colour Fastness - Part B04: Predicts how well fabrics will resist fading when exposed to the combined effects of sunlight & moisture 》
- ASTM D2565 (EN) (DIN) 《Textiles - Tests for outdoor applications – Predicts long term performance and resistance to color fading, cracking and mechanical degradation
- ISO 105-B10 (EN) (DIN) Textiles - Tests for Colour Fastness - Part B10: Artificial Weathering - Exposure to Filtered Xenon-Arc Radiation
- GB/T 8427 –method of fabrics resistance to fading by exposing it to a controlled xenon arc lamp which simulates natural light
- ASTM G151 Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices that Use Laboratory Light Sources
- ASTM G155 Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials AATCC TM16 Colorfastness to Light
- AATCC TM169 Weather Resistance of Textiles: Xenon Lamp Exposure



Water Purification System

Characters: Xenon lamps imported from America can ensure the test results have a good repeatability and comparability. Special rotating-drum design for samples holder ensures each sample can obtain the same and uniform irradiance during the whole test. Irradiance energy can be accurately controlled. The "Closed-Loop" control system can automatically compensate the change of light intensity caused by ageing or other factors.



Operation Menu



- ◆ Can choose narrow band (at 340nm or at 420nm) or broad band (from 300nm~400nm or from 300 nm~800nm) to control irradiance.
- ◆ Can choose three different filters (Daylight, Window glass, Extended UV) to meet different test requirements.
- ◆ The test procedures can be programmed freely; can set 10 programs and save 6 predetermined programs in one time. Every program includes up to 10 segments for setting parameters.
- ◆ Can set and control precisely and automatically the relative humidity of working room.
- ◆ Can set the cumulative energy (total irradiance energy) obtained by sample to finish a test procedure.
- ◆ With spray function, can set spray time and spray interval time.
- ◆ Users can easily calibrate and adjust the irradiance or the blackboard temperature by themselves.
- ◆ With High precision Pt100 Temperature sensor. BPT (black panel temperature), BST (black standard temperature) and working room temperature can be set and controlled precisely and automatically during the whole process
- ◆ Alarm and protection function: Over temperature (BPT BST .Working room), big deviation of irradiance shortage of spraying water, abnormal lamp power big error of humidity.
- ◆ Touch screen and user-friendly operation interface allow operator to set the test parameters and monitor all the test process easily.
- ◆ Real-time data can be collected and recorded. The incidental USB connector allow users to download the test data (EXCEL format) directly, achieving unattended operation

Main Technical Parameters:
★ Xenon Lamp: One, 2.2 KW xenon lamp (imported from America)
★ Filter: IR window filters (Also can choose B/SL or daylight filter or extended UV)
★ Lamp Lifetime: Near 1500 hours
★ Capacity: Specimen Holder Size 135*45mm can hold up to 35 Samples.
★ Adjustable Irradiance Range
0.3W/m ² ~ 0.75W/m ² (@340nm)
or 0.5W/m ² ~ 1.35W/m ² (@420nm)
or 30W/m ² ~ 90W/m ² (300nm~400nm)
or 320W/m ² ~ 850W/m ² (300nm~800nm)
★Controlling irradiance point: 340nm or 420nm or 300nm ~400nm
or 300nm ~800nm
★ Adjustable Black Panel Temperature Range: RT ~110 °C
★ Adjustable working room Temperature Range: RT+8°C ~65 °C
★ Adjustable relative humidity of working room 10%~95%
★ Overall Size: 860mmX800mmX1770mm (L * W * H)
★ Net Weight: 200Kg
★ Power Supply: 415V50Hz3 phase
Max Current 15 A
★ Max Total machine Power :5.5kW
★ Requirements of Compressed air, clean, Oilness, compressed
air with 0.5MPa Pressure, max Air Supply is near 60L/min,
Average air consumption is 10L/min Depends on testing standard





Converter 1 phase to 3 phase

INPUT		
01	Input	230 Volts 1 Phase 50 Hz
02	Power Factor	0.8 Lagging to unity
03	Output Voltage	415 V +/- 1 %
04	Rating	12 KVA
05	Output Frequency	50 Hz $\pm$ 0.1%
06	Efficiency	More than 85%
08	Waveform	Pure Sine wave
09	Over Load Capacity	150 % for 10 sec. 125 % 20sec. 110 % 10 Min. Or As per requirement
10	Rated Power Factor	0.8
11	Harmonic distortion (THD)	Less than 3 % Typically
12	Isolation Transformer	Inbuilt
13	Warranty	1 years Warranty
14	Temperature	0 - 45° C
15	Noise level	< 60 db @1 Meter
16	Relative Humidity	Up to 95%
17	Enclosure	IP20
18	Cooling	Force air cooling
19	Color	RL7035
20	Enclosure	IP20



AT 87 Multifunctional Irradiance Radiometer

AT 87 for all artificial light accelerated aging test chamber, irradiance (irradiation energy) is one of the most important parameters affecting the test results. On the other hand, with the extension of the service time of the aging test chamber, some components (including filters, irradiation probes, sensors, etc.) will age, resulting in deviation of irradiance displayed on the instrument. Therefore, regular calibration of the irradiation energy of aging instrument is a necessary operation in the process of artificial accelerated aging test.

The multifunctional irradiance radiometer is a brand-new hand-held instrument produced by Aadarsh Tech. It includes a hand-held irradiance radiometer (main body) and one or more special probes. When using, select the corresponding probe and insert the irradiance radiometer according to the required calibration object, and select the lamp or filter type in the radiometer display screen. Then place the probe in the calibrated instrument and start the aging test chamber, and calibrate the irradiance in the aging test chamber by reading the value displayed on the irradiance radiometer. On the other hand, when the probe is inserted into the irradiance radiometer, its display screen will automatically read and display the factory number and calibration date of the probe, so that the user can calibrate the probe in time.

The multifunctional irradiance radiometer can be used to calibrate the irradiance of all aging test chambers (including xenon lamps and fluorescent ultraviolet) produced by Aadarsh Tech. Compared with other irradiance radiometer on the market, the multifunctional irradiance radiometer has the following characteristics:

- ◆ After inserting the calibration probe, the main body automatically recognizes the type of the probe and its relevant parameters.
- ◆ Xenon lamp calibration probe, which can simultaneously calibrate the irradiance of air-cooled and water-cooled xenon lamps and different filters.
- ◆ UV calibration probe can simultaneously calibrate the irradiance of different types of fluorescent ultraviolet lamps (UVA / UVB).
- ◆ 5-inch capacitive LCD touch screen with HD resolution of 1080×720 .
- ◆ The modular irradiance probe is adopted, which is lower in cost than the traditional instrument with integrated probe and host.
- ◆ After the validity period of the self-identification probe expires, the user can choose to recalibrate or replace it.

Main Technical Parameters:
★ Range: 0.00~2.00W/m ² (340nm): 0.000~4.00W/m ² TUV);
0~300W/m ² (300nm~400nm/TUV);
0.00~2.00W/m ² (UVA&UVB)
★ Irradiance: ±10%
★ Recommended Calibration Period: One Year
★ Probe Temperature Drift of probe: ±0.02%/°C
★ Operating Environment: 0~50°C; 10%RH ~90%RH
★ Maximum Working Temperature: 70°C
★ Main Body Size: 143mm X 75mm X 20mm
★ Net Weight (main body and probe):380



AT 87 Calibration Radiometer