

Let 's make a maximum improvements with minimum cost !!

The Class CBB light resistance test system for

- *PV Cells
- *Materials of PV cells
- *Peripherals of PV cells and modules



C B B Solar simulator

Non-uniformity of irradiance	JIS C 8904 Class C
Temporal instability of irradiance	JIS C 8904 Class B
Spectral coincidence	JIS C 8904 Class B

【 Configurations 】

- Solar simulator (SML-2K1A)
- I-V measuring software
- SMU / Peltier type thermal controlling systems
- Spot cooler

Five features

Specializing in light resistance test

- JPY 5 MILLIONS COST REDUCTION ※ 1
- 2000Hs CONTINUOUS IRRADIANCE
- SMALL SIZE AND FOOTPRINT
- EASY MAINTENANCE FOR LAMP REPLACEMENT
- IDEAL CUSTOMIZATION AS YOU LIKE

(※ 1) Comparison price with our own product of Model XIM-3B300KP Class AAA

Non uniformity of irradiance

We SERIC believes that Class C ($\pm 10\%$) Non-uniformity of irradiance is available if there are no changes at both of before and after the test

Temporal instability of irradiance

We SERIC believes that Class B ($\pm 3\%$) Temporal-instability of irradiance is available if there are no change during the test.

Spectral Coincidence

We SERIC believes that Class B ($\pm 40\%$) Spectral coincidence is available if there are no change at both of before and after the test.

The Examples of customize

About JIS and Light resistance test

In case of If

- want to embed with test chamber systems.
- want to measure lots of samples in same time.
- want to measure own specific sample cells.
- want to irradiate for long time over 1000hs.
- want to customize IV software.
- want to customize the SMU.

Q. Do we have to need the Class AAA solar simulator for light resistance test?

A. SERIC believes that the lower class solar simulator is quite available to use for light resistance comparative test depend on test conditions.

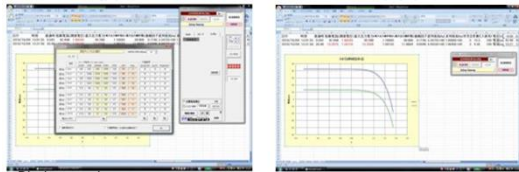
Solar simulator

Specifications	
Model	SML - 2 K Series
Direction of irradiance	Down irradiance (in Test box)
Dimensions	W600xD650xH1465mm
Dimensions of test box Inside	W500xD495xH350mm
Weight	Approx 150kg
Utility	1φ200V 50/60Hz
Input power	2400VA
Input current	12A
Lamp	2000W Metal halide lamp
Effective irradiance area	□300mm
Irradiance	100mW/cm ² (300~2500nm)
Irradiance adjustable range	100~70%
Non uniformity of irradiance	Within ±10% Class C (JIS C 8904)
Temporal instability of irradiance	Within ±3% Class B (JIS C 8904)
Spectral coincidence	0.4~1.6 Class B (JIS C 8904)
Cooling	Air cooling
Operating temperature	0~30°C
Operating humidity	10~90%
Color	Munsell N 1 (Medium gloss)
Cooling system	Spot cooler (Option)



I - V software

- Easy operation on Excel (Widows office)
- Isc, Jsc, Voc, Pmax, Vmax, Imax, FF, Eff, els



<Display samples>

Sample switching unit

- Simultaneous measurement up to 30 PV samples
- Easy controlling with software



Source measurement unit

- Optimized unit for DC Voltage and Current source for electronic circuits test
- High accuracy / High resolution (Current : 100pA, Voltage : 1μV)



Peltier type thermal controlling system

- All in one (Peltier unit, Sample stage, Heatsink, Cooling DC Fan)
- Compact design for effective temperature control
- Easy operation for temperature control

Effective stage area	300×300mm
Number of peltier devices	16
Temperature range	25~50°C
Temperature resolution	1°C



The above is just an example, The light source unit and the peripheral equipment, we will customize to suit your measurement needs.

■ Maker  Special Manufacturer of Sunlight
SERIC LTD.

■ Headquarter 334-1 Shichiza-cho 7-chome, Koshigaya-shi,
Saitama-ken 343-0851 JAPAN

TEL : (048)967-5328 FAX : (048)967-5329

■ URL <https://www.en.seric.co.jp/>