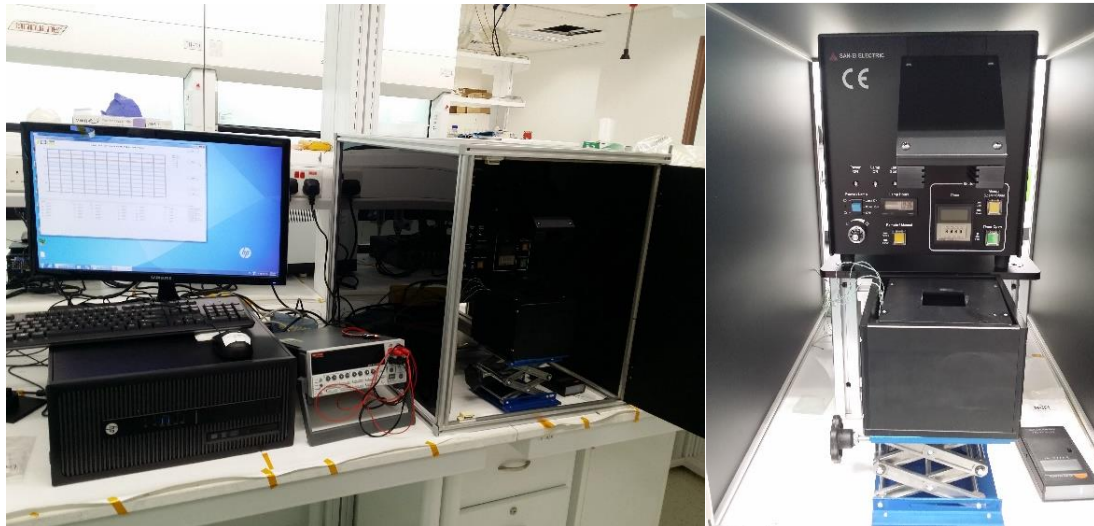


## Solar Simulator

Manufacturer: **SAN-EI ELECTRICAL CO., LTD**

Model: **XES-40S2-CE**



### Descriptions:

A Solar Simulator is a light source that approximates the illumination of natural sunlight. Solar simulators with various tailored spectral output are used to test a variety of samples including but not limited to solar cells, sun screen (SPF), materials photo-stability, and other samples (in-vivo or in-vitro) under controlled, repeatable, laboratory conditions.

### Features:

|                                    |  |
|------------------------------------|--|
| Effective Irradiated Area          | 40x40mm  |
| AM filter                          | AM-1.5G  |
| Irradiance                         | 1,000W/m <sup>2</sup> (1 SUN)                                  |
| Temporal Instability of Irradiance | < 1% (JIS / IEC / ASTM Class A)                                |
| Irradiance Uniformity              | < 2% (JIS / IEC / ASTM Class A)                                |
| Spectral Coincidence               | AM 1.5G (JIS / IEC / ASTM Class A)                             |
| Lamp Life                          | Average 2,000 hours Guarantee Time 1,000 hours                 |
| Certification                      | AAA class Certified JI 8912 / IEC 60904-9 (2007) / ASIM E927-5 |

### Applications:

1. Inspection / measurement of solar cell / LCD
2. Solar simulated light source for optical science experiment
3. Solar resistance test of materials.

## Specifications:

### 1. System configuration

|                     |                                     |
|---------------------|-------------------------------------|
| Light Source Unit   | XES-40S2-CE                         |
| Light Source Size   | W250 x H276 x D566 mm               |
| Light Source Weight | 11 kg                               |
| Power Supply        | Integrated inside light source unit |
| Filter              | Am 1.5G                             |
| Lamp                | 150W Xenon Lamp, L150SS             |

### 2. Components

|                        |   |
|------------------------|---|
| Shutter Unit           | Manual or timer controlled (0.1s ~ 9990hrs)<br>Drive system solenoid            |
| Output Adjustment      | Adjusting lamp power (60-100%)  |
| Cooling Fan Motor      | Auto shutoff after 20 minutes from shutting down of lamp                        |
| Interlock              | Lamp off automatically when the cover is open                                   |
| Overheating prevention | Thermostat mentoring<br>90 °C inside power supply<br>130 °C inside lamp housing |
| Lamp Operation Meter   | Indicating operation time of current lamp                                       |
| External Control       | Lamp on/off output signal<br>Shutter open output signal                         |

### 3. Electronic Specifications

|                       |  |            |           |
|-----------------------|--|------------|-----------|
| Rated Input           | 100-240V, 50-60Hz, 1Φ, 230W(Max)<br>*Allowable power fluctuation range is ±10% of rated input. |            |           |
| Lamp Current          | DC 4.5-7.5A  |            |           |
| Lamp Voltage          | DC 20V ±2V   |            |           |
| Voltage Endurance     | Input ~ Output between FG  | AC 1,000 V | 1 minute  |
|                       | Output between FG  | AC 500 V   | 1 minute  |
| Insulation Resistance | Input ~ Output between F.G   | DC 500V    | above 20M |
|                       | Output between FG  | DC 500V    | above 20M |

### 4. Operating Environment

|             |                                   |
|-------------|-----------------------------------|
| Temperature | 5~35°C (RT value)                 |
| Humidity    | 20~85% (RH value No Condensation) |

**For training and operation of the equipment, please contact person in charge.**