

# **SPECIFICATIONS**

## **AAA Class Portable Solar Simulator**

**Model: XES-50S2**



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## **1. Introduction**

This solar simulator is designed for a small irradiated area (50mm x 50mm) . Because the light source & power supply are on apparatus, this solar simulator has a small body and convenient to carry. All optical specifications are the grade of class A (JIS C8912 / IEC 60904-9 2007 / ASTM E927-5).

### ● **System Configuration**

<b>Light Source Unit</b>	XES-50S2
<b>Light Source Size</b>	W204x H278 x D665 mm (including lens unit)
<b>Light Source Weight</b>	11.5kg
<b>Power Supply</b>	Inside Light Source Unit
<b>Filter</b>	AM 1.5G
<b>Lamp</b>	150w Xenon Lamp, L150NN
<b>Accessories</b>	AC power input cable Wrench for lamp fixing Operation manual

## 2. Components

<b>Shutter Unit</b>	Manual or remote controlled.
<b>Output Adjustment</b>	By changing the current lamp power (70~100%) .
<b>Cooling Fan Motor</b>	Auto-stop after the lamp extinguished over 20 minutes.
<b>Interlock</b>	Lamp shutoff automatically when the lamp exchange door is open.
<b>Overheat Prevention Mechanism</b>	80°C thermostat inside light source.
<b>Lamp Hour Meter</b>	Indicating operation time of lamp
<b>Attenuators for irradiance (optional)</b>	0%-100% adjustable.
<b>Additional mesh filter (optional)</b>	0% - 80% choose able.
<b>Additional filters (optional)</b>	One slot for additional filters (usable size: □50mm, t=2mm).

### **3. Optical Specifications**

<b>Effective Irradiated Area</b>	50mm x 50mm
<b>Working distance</b>	100mm – 120mm from lens
<b>AM filter</b>	AM-1.5G
<b>Irradiance</b>	1,000W/m <sup>2</sup> (1 SUN), max 1,200W/m <sup>2</sup>
<b>Temporal Instability of Irradiance</b>	< 1% (JIS / IEC / ASTM Class A)
<b>Irradiance Uniformity</b>	< 2% (JIS / IEC / ASTM Class A)
<b>Spectral Matching</b>	AM 1.5G within $\pm 15\%$ (JIS / IEC / ASTM Class A)
<b>Collimation angle</b>	< $\pm 4^\circ$
<b>Lamp Life</b>	Average 1,000 hours

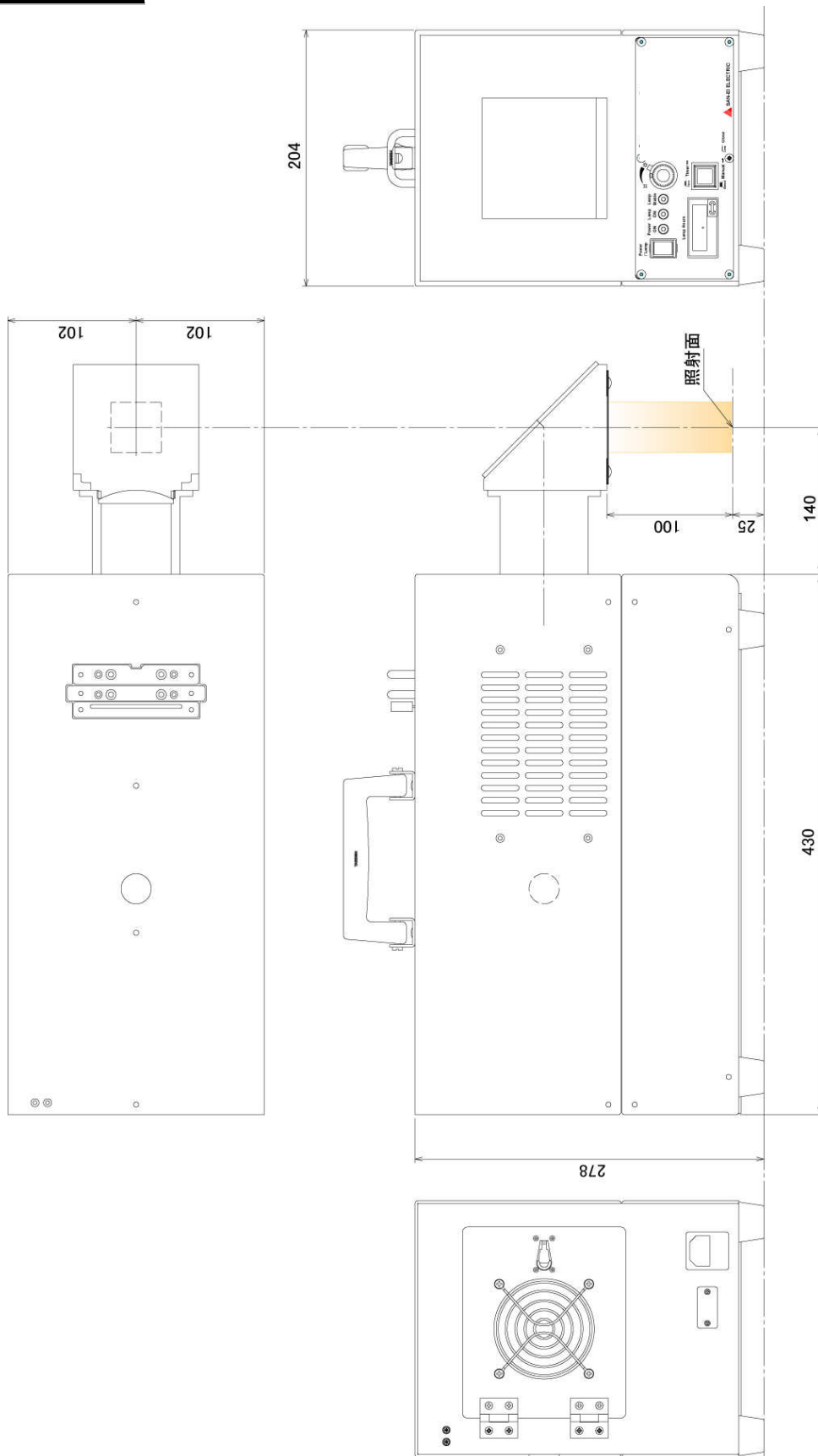
### **4. Electric Specifications**

<b>Rated Input</b>	AC200V –240V, 50/60 Hz 1 $\phi$ 320w(Max)
<b>Lamp Voltage</b>	DC24 $\pm$ 1V
<b>Lamp Current</b>	DC8.0 $\pm$ 0.5A
<b>Insulation Resistance</b>	DC 500V above 20M $\Omega$
<b>Voltage Endurance</b>	Input ~ Output between F.G AC 1,000 V 1 minute Output ~ between FG AC 500 V 1 minute

### **5. Operating Environment**

<b>Temperature</b>	20~30°C (RT value)
<b>Humidity</b>	20~85% (RH value No Condensation)

## 6. Dimension



## **8. Warranty**

Warranty period covers one year after delivery with a service time (accumulated lamp lighting time) less than 1,000 hours.

Should incident or malfunctioning occur due to design or manufacturing defects of our company within the above mentioned warranty period, compensation is provided for repair or replacement of the malfunctioning parts only.

Please clearly indicate the details of the claimed malfunctions and ship the device to our company.

The warranty does not cover the following items:

- 1) Accidents or malfunctions occur as a result of wrongful usages not covered in this manual.
- 2) Malfunction or accidents resulted from modification unauthorized by SAN-EI electric Co., Ltd.
- 3) Malfunction or secondary damages from natural or man-made calamities.
- 4) Damage compensations for accidents or malfunction.
- 5) Damage compensations for patent infringement by users operating this device.