

SPECIFICATIONS

AAA Class Solar Simulator

Model: XES-300S1



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1. Introduction

This highly accurate solar simulator irradiance feedback control system is designed for effective irradiated area □300m .

All optical specifications certified JIS 8912 / IEC 60904-9 (2007) / ASTM E927-5 AAA class.

● **System Configuration**

Light Source Unit	XES-3001SE-300S
Light Source Size	L915 x W600 x H870 mm
Light Source Weight	80kg
Power Supply	XEC-3000M1
AM Filter	AM 1.5G
Mesh Filters	Optional
Lamp	3kw Xenon Lamp
Accessories	Power Input Cable Remote Control Cable A Remote Control Cable B Power Supply-Light Source connecting Cables, A, B, C

2. Components

Shutter Unit	Manual or timer controlled (0.1 S ~ 9990 Hrs) Drive System: Shutter Solenoid
Output Adjustment	By changing the current lamp power (70~100%) *Indicated in the lamp output display
Cooling Fan Motor	Auto-stop after the lamp extinguished over 20 minutes
Interlock	Lamp shutoff automatically when the lamp exchange door is open
Overheat Prevention Mechanism	90°C thermostat inside power supply 90°C thermostat inside lighting part
Lamp Hour Meter	Indicating operation time of lamp
Optical Axis Adjustment Mechanism	X-axis, Y-axis, Z-axis adjustment knob, Arc Monitor
Feedback Control	Constantly control irradiance of solar simulator with a feedback system, which inside power supply.
External Control	Power input signals Lamp on/off input and output signals Lamp stability indicator output signals Manual shutter opening input signals Shutter timer start input signals Shutter open confirmation output signals Shutter closed confirmation output signals Lamp life alarm output signals Interlock/ thermostat abnormality output signals

3. Optical Specifications

Effective Irradiated Area	□300mm
AM filter	AM1.5G
Standard Irradiance	1,000W/m ² (1 SUN, with 3kw lamp)
*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)
Collimation Angle	<±1.4°
Lamp Life	Average 1,000 hours Guarantee Time 500 hours

*The notation of '±' with respect to the standard is defined by JIS, which is different from IEC.

Since the basic calculation formula is the same, it is not looser than the IEC.

4. Electric Specifications

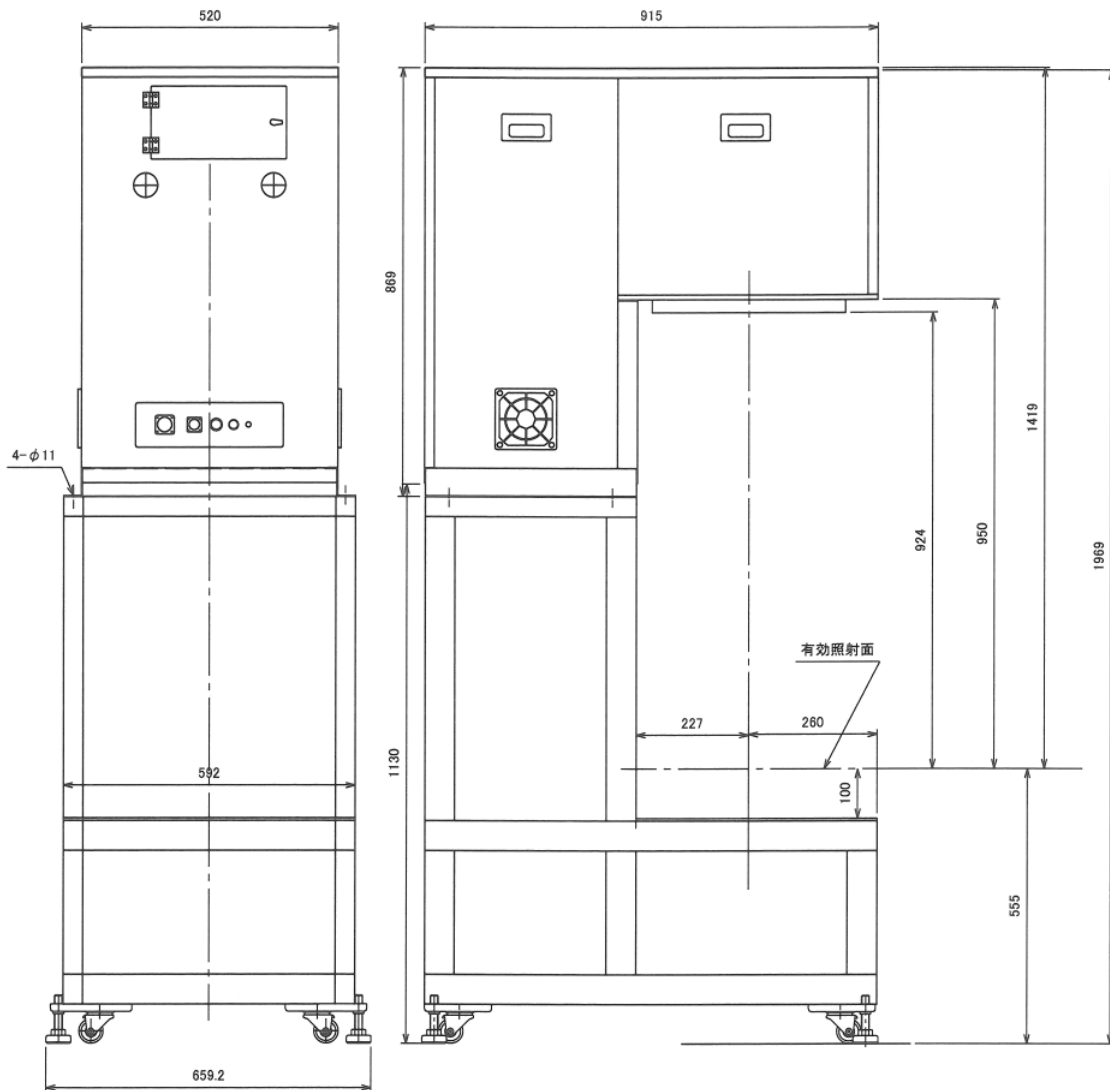
Rated Input	AC200-240V 50/60 Hz 1 ϕ 4.5kw(Max)
Rated Lamp Voltage	DC30V
Rated Lamp Power	About DC60-90A
Insulation Resistance	DC 500V above 20M Ω Input~Output / Output between F.G~between F.G Output~between F.G
Voltage Endurance	Input ~ Output between F.G AC 1,000 V 1 minute Output ~ between FG AC 500 V 1 minute

5. Operating Environment

Temperature	15°C~35°C (RT value)
Humidity	20%~85% (RH value No Condensation)

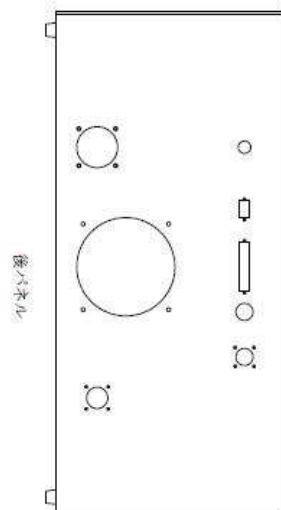
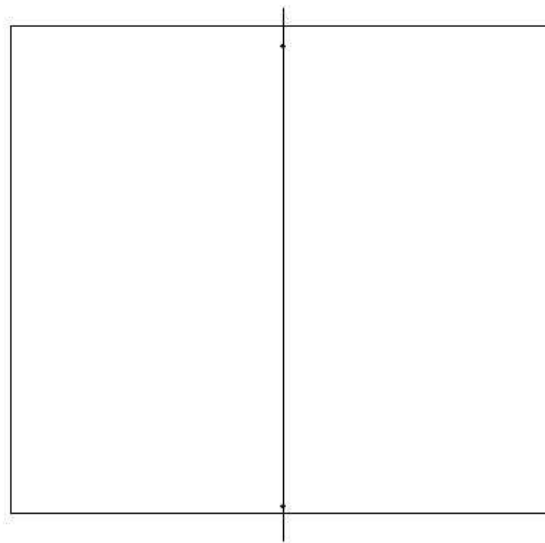
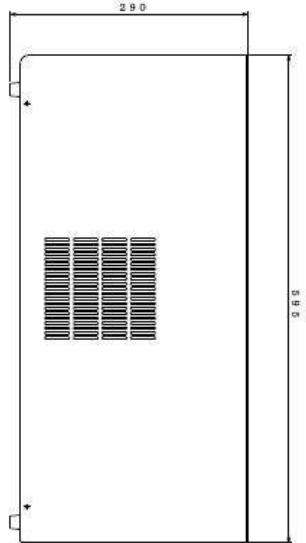
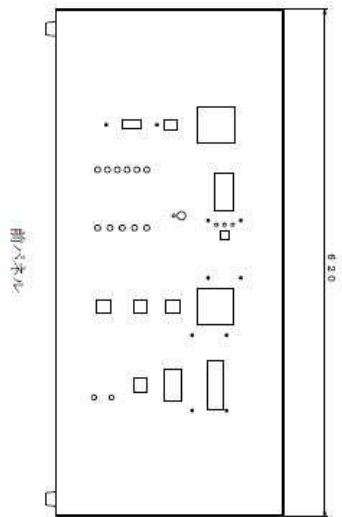
6. Dimension

A. LAMP HOUSE: XES-3001SE-300S



B. CONTROLLER1:

XEC-3000M1-FB



7. 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.