ISOSun Solar Simulator

The infinityPV ISOSun is a stable solar simulator that provides homogenous light simulation over large area with easy implementation of filters, neutral density filters, cooling and wiring. The cost affordable solar simulator is optimized for longterm lifetime and stability studies of photovoltaic devices and various materials. The ISOSun solar simulator enables reproducible testing of large PV devices up to 30 x 30 cm² according ISOS* protocols. Optional hardware provides simultaneous testing of up 40 devices.

The large experimental compartment with ventilation fans enables good access with easy wire routing for external measurement devices. An integrated temperature sensor and photo diode provide instant data acquisition and make adjustments possible.

Features:

- Cost affordable large area solar simulator
- 30 x 30 cm² testing area
- Homogeneous light distribution
- Very light stable over time
- Optimized reflector design and filter
- Ideal for longterm lifetime & stability studies
  - Solar cells
  - Paints and coatings
  - Plastic materials
- Metal-halide light source (full light spectrum)
- Ergonomic design & easy wire routing
- Fast light bulb change
- Tray system for filters
- Optional software/hardware pack
  - I-V curve tracing for PV devices
  - Lifetime studies (according ISOS* protocols)
  - Test chambers
  - Multiplexer (up to 40 devices)
  - CalCell reference cell
- Fully CE approved

Specifications:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Illuminated area</td>
<td>32 x 32 cm²</td>
</tr>
<tr>
<td>Typical power output</td>
<td>1000 W/m² (1 sun), max 1.5 suns</td>
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<tr>
<td>Uniformity</td>
<td>&lt; 5% (&lt; 1% central area)</td>
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<tr>
<td>Temporal instability</td>
<td>± 10 W @ 1000 W/m² (over 24 h)</td>
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<tr>
<td>Lamp type</td>
<td>metal-halide</td>
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<tr>
<td>Lamp power</td>
<td>1200 W</td>
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<tr>
<td>Power requirements</td>
<td>110 - 240 VAC / 1230 Watts</td>
</tr>
<tr>
<td>Size (H x W x D), cm</td>
<td>96 x 52 x 57</td>
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<tr>
<td>Weight (kg)</td>
<td>39</td>
</tr>
<tr>
<td>Included</td>
<td>Cabinet, digital thermometer (K-type), extra light bulb, adjustable elevator test surface, standard filter</td>
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<tr>
<td>Optional equipment</td>
<td>Software (incl. PC laptop), Keithley 2401 SMU, multiplexer, cooling table, bolometer, atmospheric test chambers, dark box, module test packs, filters, diffusers</td>
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<tr>
<td>Warranty</td>
<td>2 years</td>
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Spectral distribution (standard filter):

![Spectral distribution graph](image)

Light distribution:

![Light distribution graph](image)

For further information don’t hesitate to contact us.
ISOSun  Solar Simulator

Large experimental compartment / testing area

Ergonomic tray system for filters

Integrated photo diode and temperature sensor

Integrated ventilation fans

Easy parameter adjustment

Easy wire routing

User-friendly light bulb access

Optional equipment

Software (I-V-curves, lifetime testing)

CalCell reference cell

Test chambers

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