SolarConstant
MHG 4000/2500
Specially designed for solar simulation

Features
- MHG-Lamps with 4000 W / 2500 W
- Global solar radiation according to CIE85
- Optical filters for indoor and outdoor simulations
- Meets global standards DIN, IEC, EPA, MIL and other
- Wide, symmetric beam angle for high-uniformity solutions
- Modular design for customized solar systems of any size

SolarConstant MHG 4000/2500 unit ideal for solar simulators of any size. Special reflectors guarantee high uniformity on the target area.

For each new custom design, Atlas will determine by means of professional simulation both the lowest number of required SolarConstant MHG 4000/2500 units and the ideal positioning.

Sunlight can have adverse effects on materials, initiating and accelerating the degradation process as it interacts with temperature, moisture and other environmental effects. A key to the success of solar environmental test equipment is the quality of the solar simulation itself. Key criteria for high quality are a realistic light spectrum as well as optimum uniformity on the target object.

The SolarConstant Series offers luminaires based on metal halide global (MHG) technology for high-class solar simulators. The modular design combined with high power makes the

SolarConstant MHG 4000/2500 are often used for solar simulators integrated into climatic chambers. The tool of choice to determine thermal heating effects of solar radiation, such as fit and finish, dimensional stability or thermal transmission. Further to identify photodegradation effects of polymers and coatings such as change of color, gloss, haptics or physical strength. Further, testing PV module performance.
Standards and Test Methods
Atlas SolarConstant light sources produce artificial global radiation according to CIE 85. They meet a large number of national and international standard test methods. The following table lists the most commonly used standards.

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<th>Automotive</th>
<th>Defense</th>
<th>PV/Solar</th>
<th>General</th>
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<tr>
<td>DIN 75220</td>
<td>MIL-STD 810</td>
<td>IEC 61215</td>
<td>CIE 85 (Table 4)</td>
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<td>ISO 12097-2</td>
<td>DEF STAN 0035</td>
<td>IEC 904-9</td>
<td>IEC 904-3</td>
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<td>EPA 40 – CFR / SC03</td>
<td>STANAG 2895</td>
<td>IEC 61646</td>
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<td>BMW PR 306.5</td>
<td>STANAG 4370 (M.305')</td>
<td>IEC 86-2-5</td>
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<td>Renault 32-00-022</td>
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<td>IEC 60068-2-5</td>
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Technical Information Luminaire

Lamp MHG 4000 W / 2500 W
Mean lamp life 750 h / 1500 starts
Spectrum Global radiation 280-3000 nm similar CIE 85 (Tab. 4), ASTM E 892-87, Tab. 1, AM1.5
Outdoor Filter (ODF) UV cut-on ca. 290 nm
Indoor Filter (IDF) UV cut-on ca. 320 nm
Ambient temperature -10 °C - +60 °C (Off: -10 °C - +80°C)
Dimensions (B x H x T) 510 mm x 430 mm x 500 mm
Weight ca. 24 kg

Technical Information EPS Module

Connection 3 NAC 400 V, 50/60 Hz, 7.2 kVA
Output power 1250-2500 W or 2000-4000 W
Protection system Protected against open circuit; short circuit, max. 50 A
Ambient temperature 10-32 °C (no condensation)
Relative humidity 10-95 % (no condensation)
Dimensions (B x H x T) 19” x 3HE x 480 mm
Weight ca. 21.5 kg