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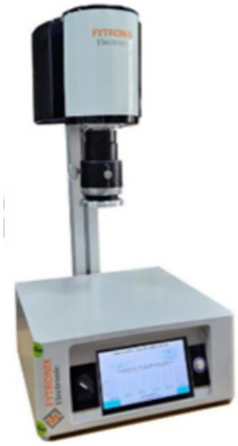
AAA CLASS LED SOLAR SIMULATOR
RD GROUP 15X



Solar simulators are manufactured in various style according to requested specifications

Solar simulator for current-voltage (I-V) characteristic measurements
Solar simulator for power-voltage (P-V) of solar cells measurements

R&D GROUP solar simulator is manufactured in accordance with IEC 60904-9 2007, JIS C 891 standards.

SPECIFICATIONS

Type Led based Solar simulator

Spectral deviation:<70%

Spectral coverage:>80%

Working distance variable: 8.5 cm or 0-12.5 cm

Irradiance: 1000 W/m2

Maximum lamp time: 10.000 hours

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Certificate Compliance

07.08. 2024

Product: Solar Simulator Model: SOLAR TECH X-11 SN: 112 Applicable

Standards: ASTM E 72-10, EIC 60904-9, JIS C 8912
Spectral Fit

Spectral Match Compared to AM 1.5G

Band/Band	**Class A limits**	**Error**	**Status**
400-500nm	%25	-4.30%	Pass
500-600nm	%25	2.20%	Pass
600-700nm	%25	1.02%	Pass
700-800nm	%25	-2.50%	Pass
800-900nm	%25	-1.80%	Pass
900-1100nm	%25	3.40%	Pass

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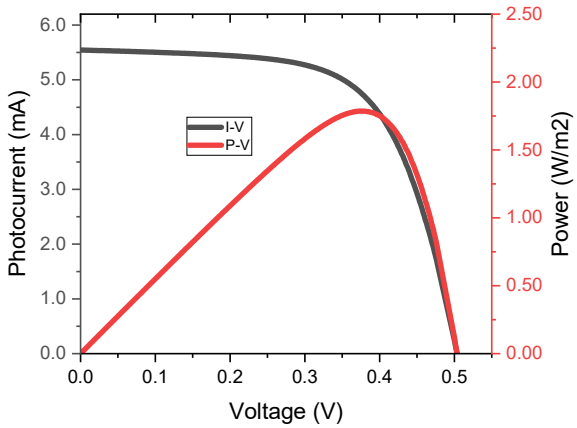
REFERENCE SOLAR CELL

This photovoltaic reference cell is designed for calibrating the irradiance of solar simulator used in testing solar cell or when assessing the performance of photovoltaic devices to determine the |-V characterization. The calibrated reference cell consists of a 10mm x 10mm monocrystalline silicon photovoltaic cell encased in a 100mm x 100mm enclosure with a KG3 filter and a temperature sensor. The calibrated solar reference cell includes a certificate of calibration, compatible set of connecting cables, and is certified in the following parameters:

Calibration condition: 1000 $Wm/^2$ (1 sun), AM1.5G, 25 °C



Enclosure dimensions: 100mm X 100mm X 10mm

Operating temperature 10 °C-40 °C

Calibration Report

Photovoltaic parameters

I_{sc}(mA)	V_{oc} (V)	I_{max} (mA)	V_{max} (V)	P_{max}(mW)	FF Factor	Efficiency(%)
5.56	0.526	4.82	0.373	1.80	0.61	3.60

The certification is accredited by NIST to the ISO-17025 standard and is traceable both to the National Renewable Energy Laboratory (NREL), and to the International System of Units (SI).

NAC

CALIBRATION LABORATORY
ISO/IEC 17025:2017
NAC-006-CL

SOLAR PHYSICS TECHNOLOGIES DELAWARE U.S.

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