

Lumina II



Super Power Output

SolarSpace advanced N-Type cells combined with MBB and high-density encapsulation provides ultra-high power output



High Reliability

Excellent harsh tests results and advanced half-cell tech improve product reliability for long-term life cycle



Extra Power Generation

N-type wafers and cells bring ultralow LID&LeTID degradation, less than 1% 1st year degradation guaranteed, in addition lower temperature coefficient and better weak-light response provide extra power generation



High ROI

Bifacial power generation reduces BOS and system LCOE dramatically, promoting the project ROI

SolarSpace Technology Co., Ltd. was established in 2011, as a world leading solar cell and module manufacturer, concentrating on high efficient solar-technology production with 55W+ capacity of solar cell and ~8GW capacity of solar module in China and overseas.

*Please refer to SolarSpace for details

SSA-48HD

445-470N

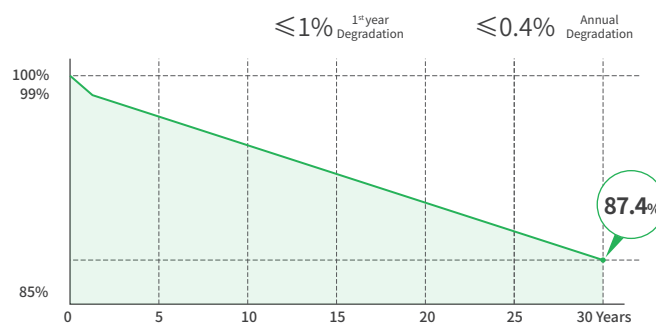
N-Type Bifacial Dual Glass Module

470W

Maximum Power Output

23.52%

Maximum Module Efficiency



15Years Product Warranty **30**Years Linear Power Warranty

Comprehensive Certificates

- IEC61215 • IEC61730
- IEC61701: Salt Mist Corrosion Test • IEC62716: Ammonia Corrosion Test
- IEC60068: Dust and Sand Test
- ISO9001: 2015: Quality Management System
- ISO14001: 2015: Environment Management System
- ISO45001: 2018: Occupational Health and Safety Management Systems



Electric Characteristics (STC)

Module Type	SSA-48HD -445N	SSA-48HD -450N	SSA-48HD -455N	SSA-48HD -460N	SSA-48HD -465N	SSA-48HD -470N
Maximum Power (Pmax) [W]	445	450	455	460	465	470
Open-Circuit Voltage (Voc) [V]	35.02	35.20	35.38	35.56	35.74	35.92
Maximum Power Voltage (Vmp) [V]	29.91	30.09	30.27	30.45	30.63	30.72
Short-Circuit Current (Isc) [A]	15.99	16.04	16.09	16.14	16.19	16.24
Maximum Power Current (Imp) [A]	14.89	14.97	15.05	15.13	15.21	15.29
Module Efficiency	22.27%	22.52%	22.77%	23.02%	23.27%	23.52%

Irradiation 1000W/m², Cell Temperature 25°C, AM=1.5

Electric Characteristics (NMOT)

Module Type	SSA-48HD -445N	SSA-48HD -450N	SSA-48HD -455N	SSA-48HD -460N	SSA-48HD -465N	SSA-48HD -470N
Maximum Power (Pmax) [W]	335	339	344	348	351	355
Open-Circuit Voltage (Voc) [V]	33.10	33.30	33.50	33.70	33.80	34.00
Maximum Power Voltage (Vmp) [V]	27.90	28.00	28.20	28.30	28.40	28.50
Short-Circuit Current (Isc) [A]	12.90	13.00	13.00	13.10	13.18	13.26
Maximum Power Current (Imp) [A]	12.00	12.10	12.20	12.30	12.38	12.46

Irradiance 800 W/m², Ambient Temperature 20 °C, Wind Speed 1 m/s, AM=1.5

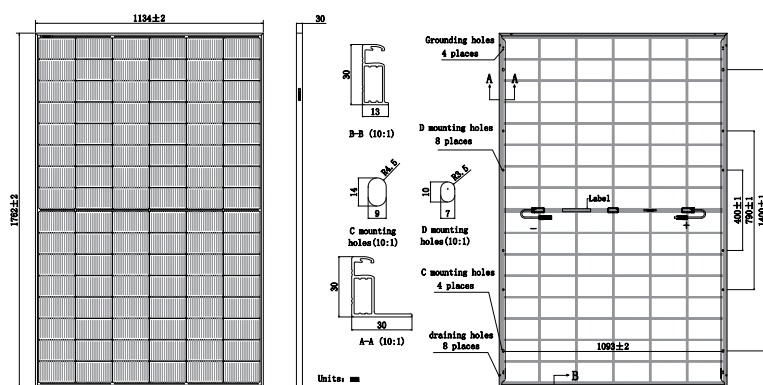
Bifacial Output-Rearside Power Gain (445W)

Power Gain	5%	10%	15%	20%	25%
Maximum Power (Pmax) [W]	467	490	512	534	556
Open-Circuit Voltage (Voc) [V]	35.02	35.02	35.02	35.12	35.12
Maximum Power Voltage (Vmp) [V]	29.91	29.91	29.91	30.01	30.01
Short-Circuit Current (Isc) [A]	16.79	17.59	18.39	19.19	19.99
Maximum Power Current (Imp) [A]	15.62	16.37	17.11	17.79	18.54

Temperature Coefficients

Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.260%/°C
Temperature Coefficient of Pmax	-0.290%/°C
NMOT	45 ± 2°C

Engineering Design



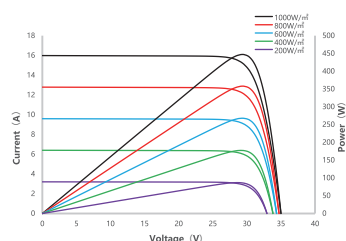
Mechanical Characteristics

Cell Type	N-Type
Number of Cells	96(6x16)
Dimensions	1762X1134X30mm
Weight	24.5kg
Glass	Front glass, 2.0mm coated semi-tempered glass Back Glass, 2.0mm glazed semi-tempered glass
Frame	Anodized Aluminum Alloy
Output Cables	4mm ² (IEC), 300mm (including connector)
Junction Box	IP68 Rated, 3 diodes
Connector	PC-SS01 / PC-SS02 / MC4-EVO2 / MC4-EVO2A
Packaging	36 Pieces / Pallet, 936 Pieces / 40' HQ Container

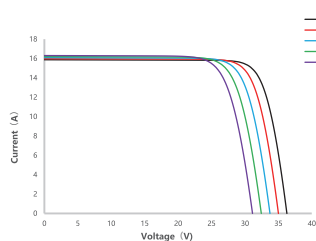
Frame color and cable length are subject to the actual order

Characteristics

I-V/P-V Curve at Different Irradiation
SSA-48HD-445N



I-V Curve at Different Temperature
SSA-48HD-445N



Operating Conditions

Maximum System Voltage	1500V DC (IEC)
Power Tolerance	0~+3%
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	35A
Mechanical Load Front Rear	5400Pa
Mechanical Load Back Rear	2400Pa
Bifaciality	80 ± 10%



SolarSpace Technology Co., Ltd.

Specifications included in this datasheet are subject to change without notice.
SolarSpace reserves the right of final interpretation.

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