

Lumina II



Super Power Output

SolarSpace advanced TOPCon 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 58.75W+ capacity of solar cell and 5.7GW capacity of solar module in China and overseas.

*Please refer to SolarSpace for details

SSA-54HDT 480-500N

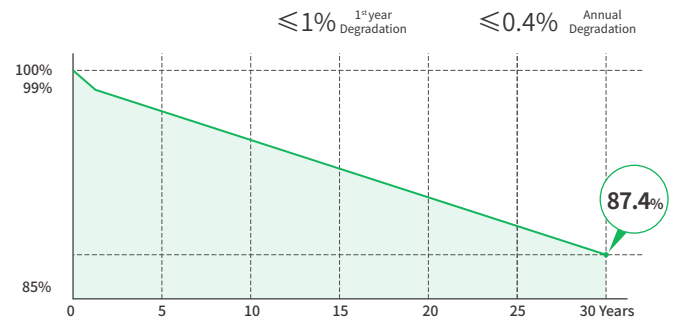
N-TOPCon Bifacial Dual Glass Module
(Transparent Back Glass)

500W

Maximum
Power Output

22.48%

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



N-TOPCon Bifacial Dual Glass Module (Transparent Back Glass) SSA-54HDT 480-500N

Electric Characteristics (STC)

Module Type	SSA-54HDT	SSA-54HDT	SSA-54HDT	SSA-54HDT	SSA-54HDT
	-480N	-485N	-490N	-495N	-500N
Maximum Power (Pmax) [W]	480	485	490	495	500
Open-Circuit Voltage (Voc)[V]	39.32	39.52	39.72	39.92	40.12
Maximum Power Voltage (Vmp) [V]	32.52	32.72	32.92	33.12	33.32
Short-Circuit Current (Isc)[A]	15.73	15.76	15.79	15.82	15.85
Maximum Power Current (Imp) [A]	14.78	14.84	14.90	14.96	15.02
Module Efficiency	21.58%	21.81%	22.03%	22.26%	22.48%

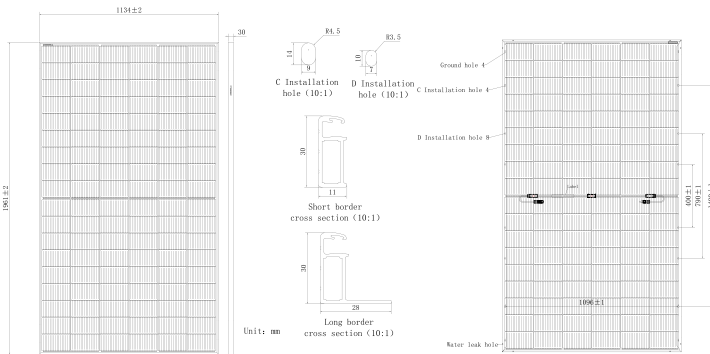
Irradiation 1000W/m², Cell Temperature 25°C, AM=1.5

Electric Characteristics (NMOT)

Module Type	SSA-54HDT	SSA-54HDT	SSA-54HDT	SSA-54HDT	SSA-54HDT
	-480N	-485N	-490N	-495N	-500N
Maximum Power (Pmax) [W]	366	370	374	378	382
Open-Circuit Voltage (Voc)[V]	37.91	37.99	38.07	38.15	38.23
Maximum Power Voltage (Vmp) [V]	30.46	30.73	31.00	31.27	31.54
Short-Circuit Current (Isc)[A]	12.71	12.73	12.75	12.77	12.79
Maximum Power Current (Imp) [A]	12.02	12.05	12.08	12.11	12.14

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

Engineering Design



Bifacial Output-Rearside Power Gain (495W)

Power Gain	5%	10%	15%	20%	25%
Maximum Power (Pmax) [W]	519	544	569	594	619
Open-Circuit Voltage (Voc)[V]	39.92	39.92	39.92	40.02	40.02
Maximum Power Voltage (Vmp) [V]	33.12	33.12	33.12	33.22	33.22
Short-Circuit Current (Isc)[A]	16.55	17.33	18.14	18.87	19.70
Maximum Power Current (Imp) [A]	15.69	16.44	17.18	17.89	18.64

Temperature coefficients

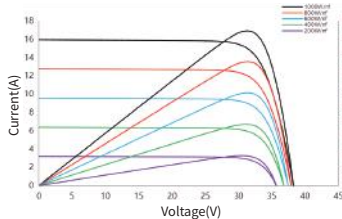
Temperature coefficient of Isc	+0.045%/°C
Temperature coefficient of Voc	-0.260%/°C
Temperature coefficient of Pmax	-0.290%/°C
NMOT	45±2°C

Mechanical Characteristics

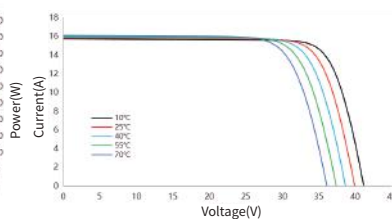
Cell Type	N-TOPCon
Number of Cells	108 (6x18)
Dimensions	1961X1134X30mm
Weight	27.6kg
Glass	Front glass, 2.0mm coated semi-tempered glass Back Glass, 2.0mm transparent semi-tempered glass
Frame	Anodized Aluminum Alloy
Output Cables	4mm ² (IEC), 12AWG(UL), 300mm(including connector) or Customized Length
Junction Box	IP68 Rated, 3 diodes
Connector	MC4-EVO2 or MC4 Compatible
Packaging	36 Pieces/Pallet, 864 pieces/40' container

Characteristics

I-V/P-V Curve at Different Irradiation
SSA-54HDT-495N



I-V Curve at Different Temperature
SSA-54HDT-495N



Operating Conditions

Maximum System Voltage	1500V DC (IEC)
Power Tolerance	0~+3%
Operating Temperature	-40°C~+85°C
Maximum Series Fuse Rating	30A
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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