

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-54HD

485-505N

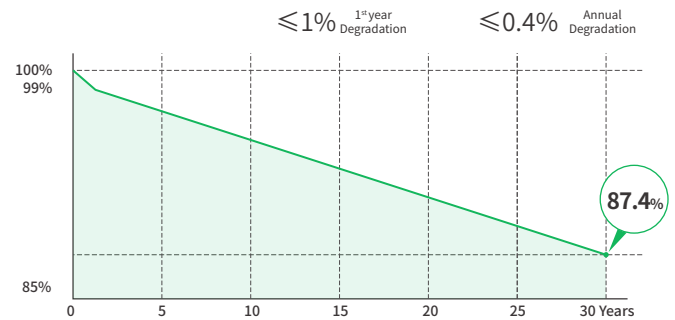
N-TOPCon Bifacial Dual Glass Module

505W

Maximum Power Output

22.71%

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-54HD -485N | SSA-54HD -490N | SSA-54HD -495N | SSA-54HD -500N | SSA-54HD -505N |
|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Maximum Power (Pmax) [W] | 485 | 490 | 495 | 500 | 505 |
| Open-Circuit Voltage (Voc)[V] | 39.52 | 39.72 | 39.92 | 40.12 | 40.32 |
| Maximum Power Voltage (Vmp) [V] | 32.72 | 32.92 | 33.12 | 33.32 | 33.52 |
| Short-Circuit Current (Isc)[A] | 15.76 | 15.79 | 15.82 | 15.85 | 15.88 |
| Maximum Power Current (Imp) [A] | 14.84 | 14.90 | 14.96 | 15.02 | 15.08 |
| Module Efficiency | 21.81% | 22.03% | 22.26% | 22.48% | 22.71% |

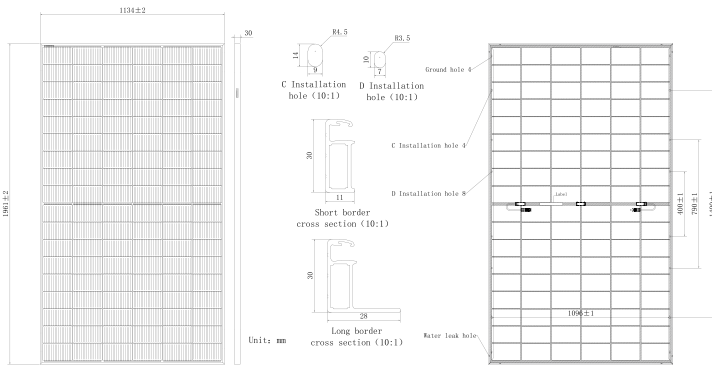
Irradiation 1000W/m², Cell Temperature 25°C, AM=1.5

Electric Characteristics (NMOT)

| Module Type | SSA-54HD -485N | SSA-54HD -490N | SSA-54HD -495N | SSA-54HD -500N | SSA-54HD -505N |
|---------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Maximum Power (Pmax) [W] | 370 | 374 | 378 | 382 | 386 |
| Open-Circuit Voltage (Voc)[V] | 37.99 | 38.07 | 38.15 | 38.23 | 38.31 |
| Maximum Power Voltage (Vmp) [V] | 30.73 | 31.00 | 31.27 | 31.54 | 31.81 |
| Short-Circuit Current (Isc)[A] | 12.73 | 12.75 | 12.77 | 12.79 | 12.81 |
| Maximum Power Current (Imp) [A] | 12.05 | 12.08 | 12.11 | 12.14 | 12.16 |

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

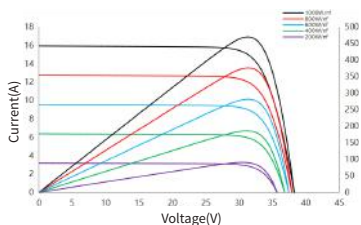
| | |
|---------------------------------|------------|
| Temperature coefficient of Isc | +0.045%/°C |
| Temperature coefficient of Voc | -0.260%/°C |
| Temperature coefficient of Pmax | -0.290%/°C |
| NMOT | 45±2°C |

Mechanical Characteristics

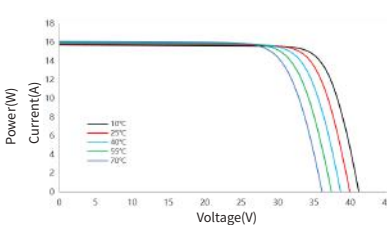
| | |
|-----------------|---|
| Cell Type | N-TOPCon |
| Number of Cells | 108 (6x18) |
| Dimensions | 1961X1134X30mm |
| Weight | 27.6kg |
| Glass | Front glass, 2.0mm coated semi-tempered glass Back Glass, 2.0mm glazed semi-tempered glass |
| Frame | Silver or Black, Anodized Aluminum Alloy |
| Output 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-54HD-495N



I-V Curve at Different Temperature
SSA-54HD-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% |

