



# Lumina II



## High Power Output

With 210 large wafer technology and slicing technology, multi-grid technology, high-density module packaging to ensure higher power output of modules



## 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% 1<sup>st</sup> 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 50GW+ capacity of solar cell and 5.7GW capacity of solar module in China and overseas.

\*Please refer to SolarSpace for details

## SS9-60HD

## 620-640N

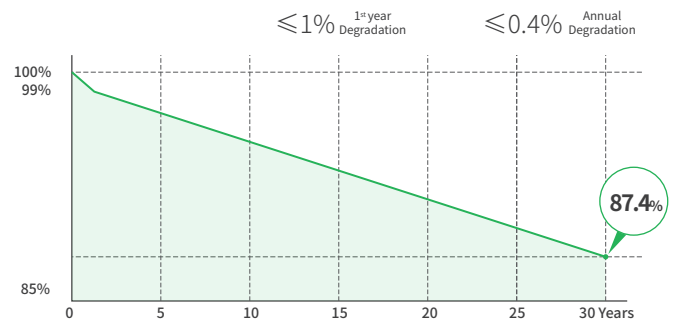
N-TOPCon Bifacial Dual Glass Module

# 640W

Maximum Power Output

# 22.58%

Maximum Module Efficiency



**15**Years 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	SS9-60HD	SS9-60HD	SS9-60HD	SS9-60HD	SS9-60HD
	-620N	-625N	-630N	-635N	-640N
Maximum Power (Pmax) [W]	620	625	630	635	640
Open-Circuit Voltage (Voc)[V]	43.25	43.47	43.69	43.91	44.13
Maximum Power Voltage (Vmp) [V]	36.16	36.38	36.58	36.79	37.00
Short-Circuit Current (Isc)[A]	18.17	18.21	18.25	18.29	18.33
Maximum Power Current (Imp) [A]	17.15	17.18	17.23	17.27	17.31
Module Efficiency	21.90%	22.08%	22.24%	22.41%	22.58%

Irradiation 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

## Bifacial Output-Rearside Power Gain <sup>(635W)</sup>

Power Gain	5%	10%	15%	20%	25%
	Maximum Power (Pmax) [W]	667	699	730	762
Open-Circuit Voltage (Voc)[V]	43.60	43.60	43.60	43.70	43.70
Maximum Power Voltage (Vmp) [V]	36.40	36.40	36.40	36.50	36.50
Short-Circuit Current (Isc)[A]	19.36	20.29	21.19	22.07	22.99
Maximum Power Current (Imp) [A]	18.32	19.20	20.05	20.88	21.75

## Electric Characteristics (NMOT)

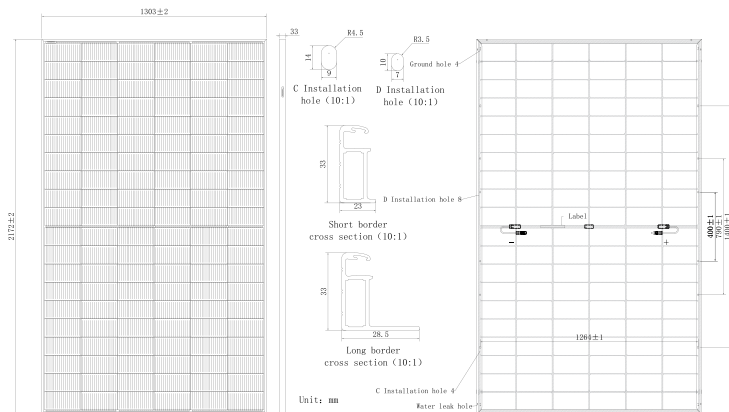
Module Type	SS9-60HD	SS9-60HD	SS9-60HD	SS9-60HD	SS9-60HD
	-620N	-625N	-630N	-635N	-640N
Maximum Power (Pmax) [W]	472	476	480	484	488
Open-Circuit Voltage (Voc)[V]	40.97	41.18	41.35	41.54	41.73
Maximum Power Voltage (Vmp) [V]	34.01	34.22	34.44	34.65	34.86
Short-Circuit Current (Isc)[A]	14.63	14.65	14.71	14.75	14.79
Maximum Power Current (Imp) [A]	13.88	13.91	13.94	13.97	14.00

Irradiance 800 W/m<sup>2</sup>, Ambient Temperature 20 °C, Wind Speed 1 m/s, AM=1.5

## 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

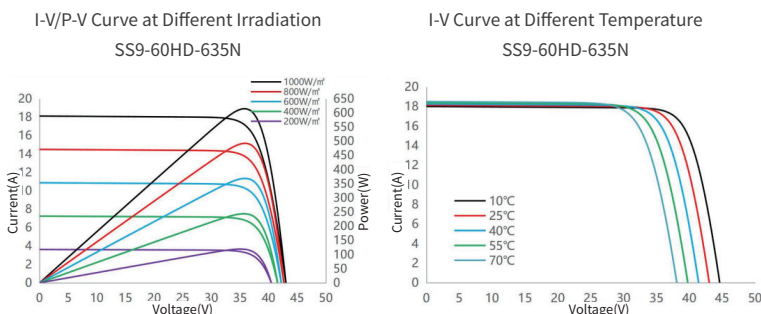
## Engineering Design



## Mechanical Characteristics

Cell Type	N-TOPCon
Number of Cells	120(6x20)
Dimensions	2172X1303X33mm
Weight	34.5kg
Glass	Front glass, 2.0mm coated semi-tempered glass Back Glass, 2.0mm glazed semi-tempered glass
Frame	Anodized Aluminum Alloy
Output Cables	4mm <sup>2</sup> (IEC),12AWG(UL) or Customized Length
Junction Box	IP68 Rated, 3 diodes
Connector	MC4-EVO2 or MC4 Compatible
Packaging	33 Pieces/Pallet, 594 pieces/40' container

## Characteristics



## 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±5%

