Lumina I

SS9-66HD 645-670M

Bifacial Dual Glass Module

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

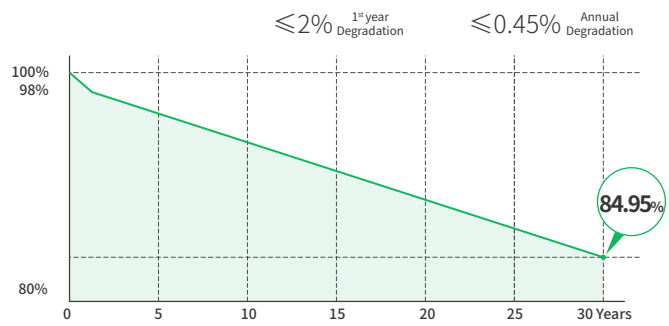
High Reliability
Excellent harsh tests results and advanced half-cell tech improve product reliability for long-term life cycle

More Power Generation
Gallium doped wafers reduce annual power degradation, optimized circuit design ensures more power generation under shading

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

670W
Maximum
Power Output

21.57%
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

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 60GW+ capacity of solar cell and 7.2GW capacity of solar module in China and overseas.

*Please refer to SolarSpace for details

Electric Characteristics（STC）

Module Type	SS9-66HD -645M	SS9-66HD -650M	SS9-66HD -655M	SS9-66HD -660M	SS9-66HD -665M	SS9-66HD -670M
Maximum Power (Pmax) [W]	645	650	655	660	665	670
Open-Circuit Voltage (Voc)[V]	45.31	45.51	45.71	45.91	46.11	46.31
Maximum Power Voltage (Vmp) [V]	37.71	37.89	38.07	38.25	38.43	38.61
Short-Circuit Current (Isc)[A]	18.11	18.17	18.23	18.29	18.35	18.41
Maximum Power Current (Imp) [A]	17.11	17.16	17.21	17.26	17.31	17.36
Module Efficiency	20.76%	20.92%	21.09%	21.25%	21.41%	21.57%

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

Bifacial Output-Rearside Power Gain（655W）

Power Gain	5%	10%	15%	20%	25%
Maximum Power (Pmax) [W]	688	721	753	786	819
Open-Circuit Voltage (Voc)[V]	45.20	45.20	45.20	45.20	45.20
Maximum Power Voltage (Vmp) [V]	38.10	38.10	38.10	38.10	38.10
Short-Circuit Current (Isc)[A]	19.35	20.27	21.19	22.12	23.05
Maximum Power Current (Imp) [A]	18.06	18.93	19.78	20.64	21.50

Electric Characteristics（NMOT）

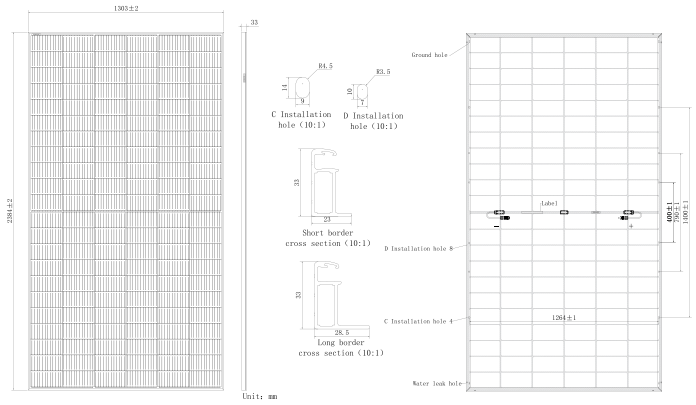
Module Type	SS9-66HD -645M	SS9-66HD -650M	SS9-66HD -655M	SS9-66HD -660M	SS9-66HD -665M	SS9-66HD -670M
Maximum Power (Pmax) [W]	488	492	496	500	504	508
Open-Circuit Voltage (Voc)[V]	42.14	42.33	42.51	42.70	42.89	43.07
Maximum Power Voltage (Vmp) [V]	35.00	35.16	35.33	35.50	35.67	35.83
Short-Circuit Current (Isc)[A]	14.84	14.89	14.94	14.99	15.04	15.09
Maximum Power Current (Imp) [A]	13.95	14.00	14.05	14.09	14.14	14.19

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

Temperature coefficients

Temperature coefficient of Isc	+0.046%/°C
Temperature coefficient of Voc	-0.260%/°C
Temperature coefficient of Pmax	-0.330%/°C
NMOT	45±2°C

Engineering Design



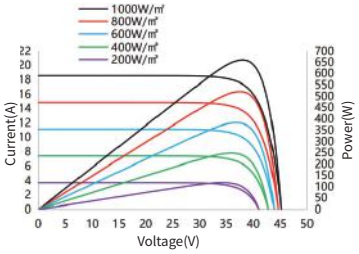
Mechanical Characteristics

Cell Type	Mono PERC
Number of Cells	132(6x22)
Dimensions	2384X1303X33mm
Weight	37.5kg
Glass	Front Glass, 2.0mm AR coated semi-tempered glass
	Back Glass, 2.0mm glazed semi-tempered glass
Frame	Anodized Aluminum Alloy
Output Cables	4mm²(IEC),12AWG(UL), 300mm (including connector)
Junction Box	IP68 Rated, 3 diodes
Connector	MC4-EVO2 or MC4 Compatible
Packaging	33 Pieces/Pallet, 594 pieces/40’ container

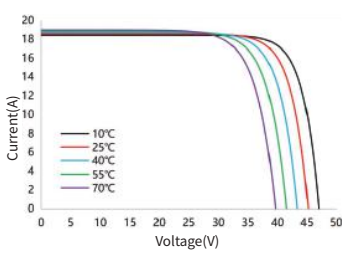
Frame color and cable length are subject to the actual order

Characteristics

I-V/P-V Curve at Different Irradiation
SS9-66HD-655M



I-V Curve at Different Temperature
SS9-66HD-655M



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	70±10%