

Lumina I



665W Maximum **Power Output**

21.4% Maximum

Module Efficiency

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 30GW+ capacity of solar cell and 5.7GW capacity of solar module in China and overseas.

SS9-66HD **645-665M**

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



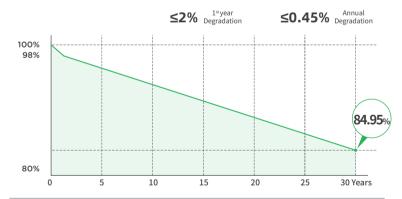
More Power Generation

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



Great Adaptability

Our modules are cost-effective and compatible with mainstream trackers, making them an ideal choice for large power plants



12 Years Product Warranty 30 Years Linear Power Warranty

Comprehensive Certificates

- •IEC61701 •IEC62716 •DINEN60068-2-68
- •ISO9001:2015: Quality Management System
- •ISO14001:2015: Environment Management System
- •ISO45001:2018: Occupational Health and Safety Management Systems







Electric Characteristics STC: Irradiation 1000W/m², Cell Temperature 25°C, AM=1.5

Module Type	SS9-66HD -645M	SS9-66HD -650M	SS9-66HD -655M	SS9-66HD -660M	SS9-66HD -665M
	STC NOCT				
Maximum Power (Pmax) [W]	645 483	650 487	655 491	660 495	665 499
Open-Circuit Voltage (Voc)[V]	44.60 42.50	44.80 42.70	45.00 42.90	45.20 43.00	45.40 43.20
Maximum Power Voltage (Vmp) [V]	37.60 35.40	37.80 35.60	38.00 35.80	38.20 36.00	38.40 36.20
Short-Circuit Current (lsc)[A]	18.42 14.82	18.47 14.86	18.52 14.89	18.56 14.93	18.60 14.96
Maximum Power Current (Imp) [A]	17.18 13.65	17.21 13.69	17.24 13.72	17.28 13.76	17.32 13.79
Module Efficiency	20.76%	20.92%	21.09%	21.25%	21.41%
Power Tolerance			0~+5W		
Temperature coefficient of Isc			+0.050%/°C		
Temperature coefficient of Voc	-0.260%/°C				
Temperature coefficient of Pmax	-0.340%/°C				

Bifacial Output-Rearside Power Gain (595 W)

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 (lsc)[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

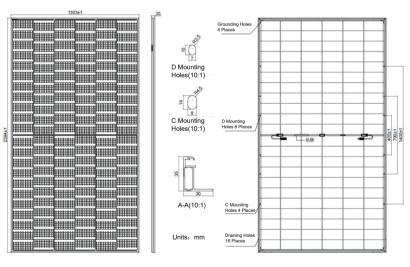
Mechanical Characteristics

Cell Type	Mono PERC (M12)
Number of Cells	132(6x22)
Dimensions	2384X1303X35mm
Weight	37.5kg
Glass	Front Glass, 2.0mm AR coated tempered glass
	Back Glass, 2.0mm glazed tempered glass
Frame	Silver, Anodized Aluminum Alloy
Output Cables	4mm²(IEC),12AWG(UL) 300mm (including connector) or Customized Length
Junction Box	IP68 Rated, 3 diodes
Connector	MC-EVO2 or MC4 Compatible
Packaging	31 Pieces/Pallet, 558 pieces/40' container

Operating Conditions

Maximum System Voltage	1500V DC(IEC)	
Operating Temperature	-40°C~+85°C	
Maximum Series Fuse Rating	30A	
Mechanical Load Front Rear	5400Pa	
Mechanical Load Back Rear	2400Pa	
Nominal operating cell temperature	43±2°C	
Bifaciality	70±10%	

Engineering Design



Characteristics

I-V/P-V Curve at Different Irradiation I-V Curve at Different Temperature SS9-66HD-655M SS9-66HD-655M - 1000W/m² - 800W/m² - 600W/m² - 400W/m² - 200W/m² 18 16 14 Current(A) 18 19 19 10 10 10 10 10 700 650 600 550 450 400 350 300 250 200 150 0 Current(A) 9 8 01 20 25 30 35 40 45 50 10 20 25 30 35 40 45 5 10 Voltage(A) Voltage(A)



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