

Lumina II



Super Power Output

POWEROY ENERGY advanced N-Type cells combin MBB and high-density encapsulation provides ultra- ed with 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

SS8-72HD

570-595N

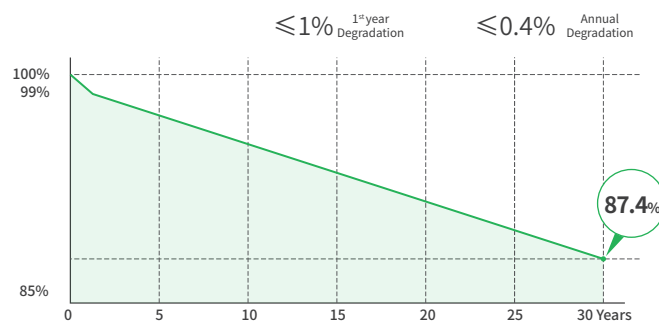
N-Type Bifacial Dual Glass Module

595W

Maximum
Power Output

23.03%

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	SS8-72HD -570N	SS8-72HD -575N	SS8-72HD -580N	SS8-72HD -585N	SS8-72HD -590N	SS8-72HD -595N
Maximum Power (Pmax) [W]	570	575	580	585	590	595
Open-Circuit Voltage (Voc)[V]	53.55	53.82	54.09	54.36	54.63	54.90
Maximum Power Voltage (Vmp) [V]	43.95	44.17	44.39	44.61	44.83	45.05
Short-Circuit Current (Isc)[A]	13.61	13.66	13.71	13.76	13.81	13.86
Maximum Power Current (Imp) [A]	12.97	13.02	13.07	13.12	13.17	13.21
Module Efficiency	22.24%	22.44%	22.63%	22.83%	23.02%	23.22%

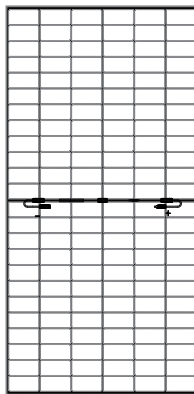
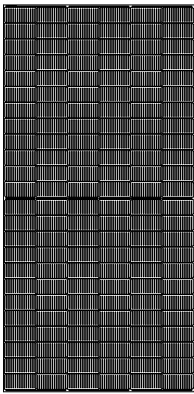
Irradiation 1000W/m², Cell Temperature 25°C, AM=1.5

Electric Characteristics (NMOT)

Module Type	SS8-72HD -570N	SS8-72HD -575N	SS8-72HD -580N	SS8-72HD -585N	SS8-72HD -590N	SS8-72HD -595N
Maximum Power (Pmax) [W]	429	433	437	441	445	449
Open-Circuit Voltage (Voc)[V]	50.86	51.11	51.37	51.63	51.88	52.14
Maximum Power Voltage (Vmp) [V]	41.18	41.35	41.53	41.67	41.85	42.03
Short-Circuit Current (Isc)[A]	10.99	11.03	11.07	11.11	11.15	11.19
Maximum Power Current (Imp) [A]	10.42	10.48	10.53	10.59	10.64	10.69

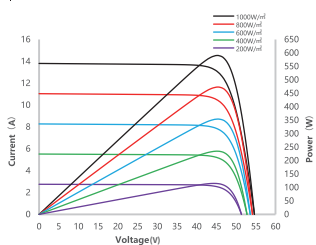
Irradiance 800 W/m², Ambient Temperature 20 °C, Wind Speed 1 m/s, AM=1.5

Engineering Design

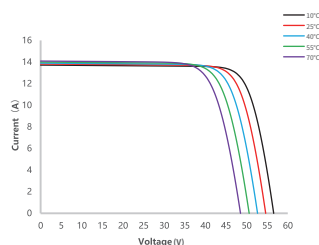


Characteristics

I-V/P-V Curve at Different Irradiation
SS8-72HD-590N



I-V Curve at Different Temperature
SS8-72HD-590N



Bifacial Output-Rearside Power Gain (590W)

Power Gain	5%	10%	15%	20%	25%
Maximum Power (Pmax) [W]	620	649	679	708	738
Open-Circuit Voltage (Voc)[V]	54.63	54.63	54.63	54.73	54.73
Maximum Power Voltage (Vmp) [V]	44.83	44.83	44.83	44.93	44.93
Short-Circuit Current (Isc)[A]	14.50	15.19	15.88	16.57	17.26
Maximum Power Current (Imp) [A]	13.84	14.48	15.15	15.77	16.43

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-Type
Number of Cells	144(6x24)
Weight	28.8kg
Glass	Front Glass, 2.0mm AR coated semi-tempered glass Back Glass, 2.0mm glazed semi-tempered glass
Output Cables	4mm²(IEC), 12AWG(UL), 300mm (including connector) or 1200mm(including connector)
Junction Box	IP68 Rated, 3 diodes
Connector	MC4-EVO2 or MC4 Compatible
Packaging	36 Pieces/Pallet, 720 pieces/40' container

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%