Lumina II

SS8-54HD 425-445N

N-Type Bifacial Dual Glass Module

Super Power Output
SolarSpace advanced N-Type cells combined with MBB and high-density encapsulation provides ultra-high power output

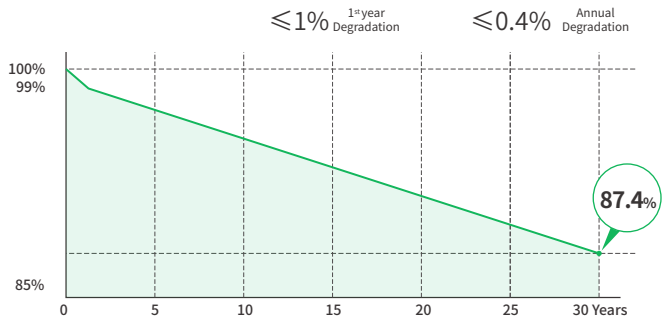
High Reliability
Excellent harsh tests results and advanced half-cell tech improve product reliability for long-term life cycle

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

445W
Maximum
Power Output

22.79%
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	SS8-54HD -425N	SS8-54HD -430N	SS8-54HD -435N	SS8-54HD -440N	SS8-54HD -445N
Maximum Power (Pmax) [W]	425	430	435	440	445
Open-Circuit Voltage (Voc)[V]	38.08	38.27	38.46	38.65	38.84
Maximum Power Voltage (Vmp) [V]	32.03	32.21	32.37	32.55	32.73
Short-Circuit Current (Isc)[A]	14.07	14.13	14.21	14.29	14.37
Maximum Power Current (Imp) [A]	13.28	13.36	13.44	13.52	13.60
Module Efficiency	21.76%	22.02%	22.28%	22.53%	22.79%

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

Bifacial Output-Rearside Power Gain （425W）

Power Gain	5%	10%	15%	20%	25%
Maximum Power (Pmax) [W]	446	468	489	510	531
Open-Circuit Voltage (Voc)[V]	38.29	38.29	38.29	38.39	38.39
Maximum Power Voltage (Vmp) [V]	32.12	32.12	32.12	32.13	32.13
Short-Circuit Current (Isc)[A]	14.59	15.15	15.69	16.25	16.81
Maximum Power Current (Imp) [A]	13.89	14.58	15.23	15.88	16.53

Electric Characteristics (NMOT)

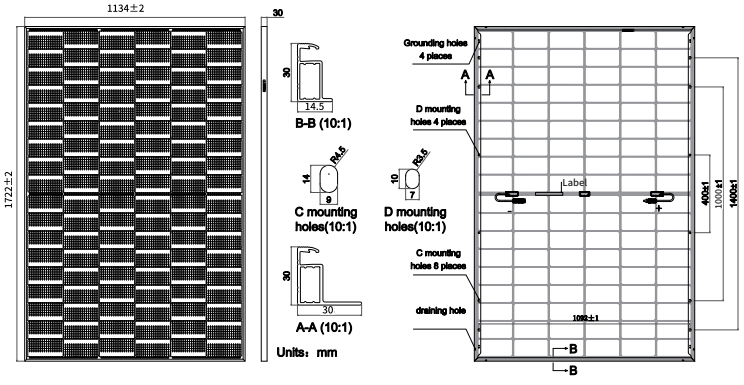
Module Type	SS8-54HD -425N	SS8-54HD -430N	SS8-54HD -435N	SS8-54HD -440N	SS8-54HD -445N
Maximum Power (Pmax) [W]	323	327	331	335	339
Open-Circuit Voltage (Voc)[V]	36.60	36.78	36.96	37.14	37.32
Maximum Power Voltage (Vmp) [V]	30.17	30.34	30.52	30.69	30.86
Short-Circuit Current (Isc)[A]	11.47	11.54	11.61	11.68	11.75
Maximum Power Current (Imp) [A]	10.71	10.78	10.85	10.92	10.99

Irradiance 800 W/m² , 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



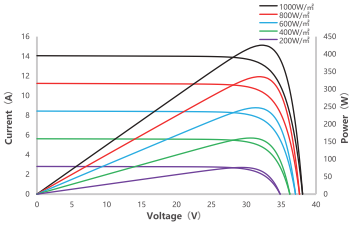
Mechanical Characteristics

Cell Type	N-Type
Number of Cells	108(6x18)
Dimensions	1722X1134X30mm
Weight	24.0kg
Glass	Front glass, 2.0mm 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) or1000mm(including connector)
Junction Box	IP68 Rated, 3 diodes
Connector	MC4-EVO2 or MC4 Compatible
Packaging	36 Pieces/Pallet, 936 pieces/40’ container

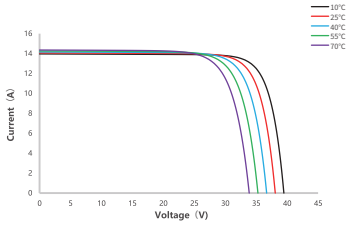
Frame color and cable length are subject to the actual order

Characteristics

I-V/P-V Curve at Different Irradiation
SS8-54HD-425N



I-V Curve at Different Temperature
SS8-54HD-425N



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%

Specifications included in this datasheet are subject to change without notice.
Solarspace reserves the right of final interpretation.