

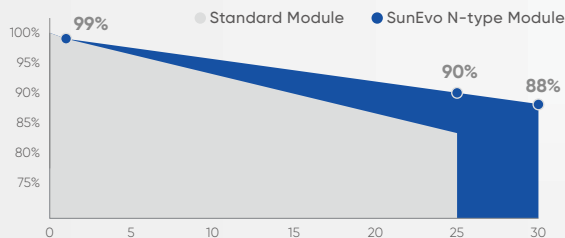
EVO 5 Pro

410-430W

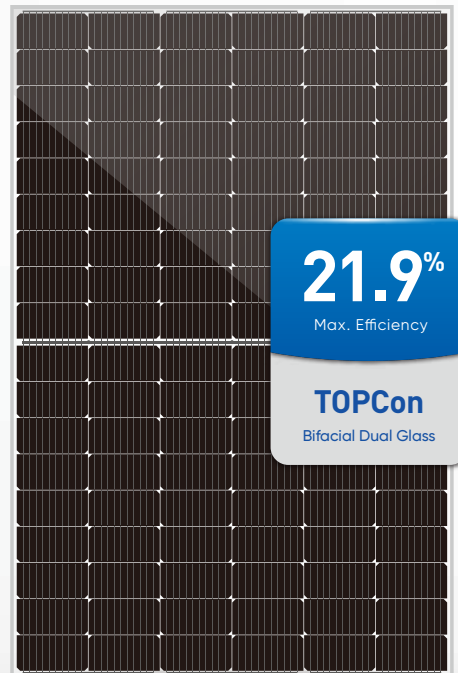
N-type TOPCon Half Cell MBB Bifacial Dual Glass Module

Quality Guarantee

12-Year Warranty for Materials and Processing
30-Year Warranty for Extra Linear Power Output



* Please refer to SunEvo standard warranty for details



SE5-54HBD

10-30% Additional Power Generation

30 years lifespan brings 10-30% additional power generation comparing with conventional P-type module

ZERO LID (Light Induced Degradation)

N-type solar cell has no LID naturally which can increase power generation

Better Weak Illumination Response

Higher power output even under low-light environments like on cloudy or foggy days

Better Temperature Coefficient

Higher power generation under working conditions thanks to passivating contact cell technology

Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO 9001: 2015: ISO Quality Management System

ISO 14001: 2015: ISO Environment Management System

ISO 45001: 2018: Occupational Health and Safety

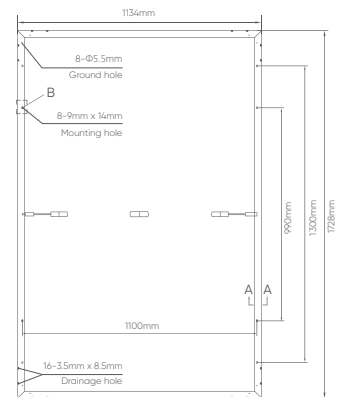


Mechanical Data

Number of Cells	108 Cells (6x18)
Dimensions of Module L*W*H	1728 x 1134 x 30mm
Weight	24.5kg
Front Side Glass	High transparency solar glass 2.0mm
Back Side Glass	High transparency solar glass 2.0mm
Frame	Black/Silver, anodized aluminium alloy
Junction Box	IP68 Rated, 3 Diodes
Cable	4.0mm ² , Portrait: 300mm / Landscape: 1200mm
Wind/Snow Load	2400Pa/5400Pa*
Connector	MC Compatible
Bifaciality	80±5%

* Please check the installation manual for more details

Module Dimension

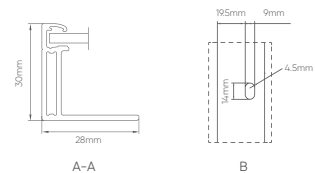


Back View

Electrical Specification (STC*)

Maximum Power (Pmax/W)	410	415	420	425	430
Maximum Power Voltage (Vmp/V)	31.5	31.7	31.9	32.1	32.3
Maximum Power Current (Imp/A)	13.02	13.10	13.17	13.24	13.32
Open Circuit Voltage (Voc/V)	37.5	37.7	37.9	38.1	38.3
Short Circuit Current (Isc/A)	13.82	13.91	13.98	14.05	14.12
Module Efficiency (%)	20.92	21.18	21.43	21.69	21.94
Power Output Tolerance (W)	0~+5				

* Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5

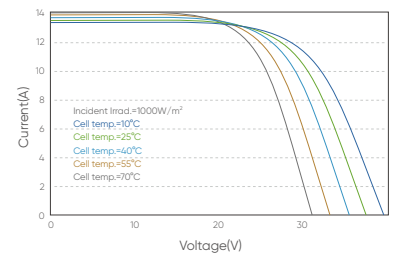


Electrical Specification (NOCT*)

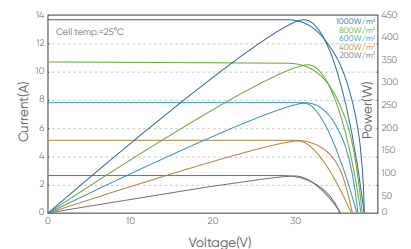
Maximum Power (Pmax / W)	311	315	318	322	326
Maximum Power Voltage (Vmp / V)	29.6	29.8	30.0	30.2	30.3
Maximum Power Current (Imp / A)	10.50	10.56	10.62	10.67	10.74
Open Circuit Voltage (VOC / V)	35.8	36.0	36.2	36.4	36.6
Short Circuit Current (Isc / A)	11.14	11.22	11.27	11.33	11.38

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

I-V Curve at Different Temperature (420W)



I-V/P-V Curve at Different Temperature (420W)



Maximum Ratings

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	30A

Packaging Configuration

Module per Box	36 pieces
Module per 40' Container	936 pieces

Temperature Ratings

NOCT (Nominal Operating Cell Temperature)	42±2°C
Temperature Coefficient of Isc	+0.046%/°C
Temperature Coefficient of Voc	-0.260%/°C
Temperature Coefficient of Pmax	-0.310%/°C