

# EVO 6R

# 445-465W

SE6R-48HBD

N-Type TOPCon Ultra Black  
Bifacial Double-Glass Solar Module

22.75%

Max. Module Efficiency

## N-Type 182\*210mm Cell

Adopting the 182\*210mm N-Type TOPCon cells with the highest efficiency.

## Bifacial with Double-Glass

Module adopts 182\*210mm half cells, bifacial module provide an additional 5%~25% output.

## Load Capacity

Mechanical load tests including wind load 2400Pa and snow load 5400Pa done by TUV.

## PID Protection

Ensure the attenuation probability caused by PID phenomenon is minimized.

## Harsh Environmental Adaptability

Strict salt spray and ammonia corrosion test by TUV.

## Quality Management System and Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt),  
IEC62716 (Ammonia), IEC60068-2-68(Sand),  
ISO 9001:2015/quality management system,  
ISO 14001:2015/environmental management system,  
ISO 45001:2018/occupation health safety management system,  
ISO 50001:2011/energy management system,  
IEC TS 62941-2016/PV industry quality management system.

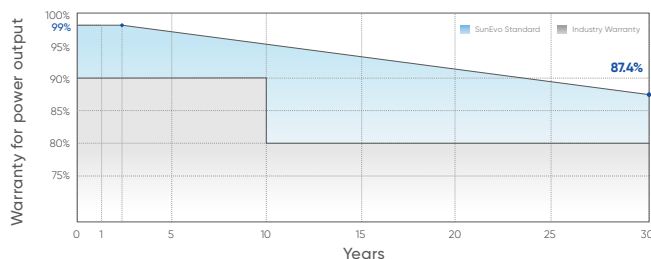
## Quality Guarantee

25 Years

Materials Warranty

30 Years

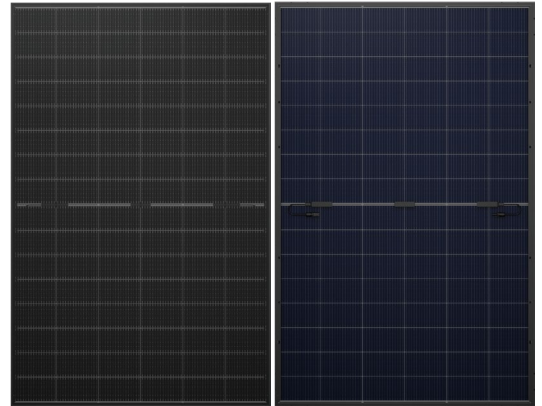
Power Warranty



## Mechanical Characteristics

Weight	25kg
Dimensions	1762×1134×30mm
Cell Dimensions	182×210mm
Cell Amount	48×2 pcs
Maximum System Voltage	1500V
Junction Box	IP68
Glass Thickness	(F) 2.0mm, Anti-Reflection Coating   (B) 2.0mm, Heat Strengthened Glass
Frame	Aluminum Alloy
Cable	4mm <sup>2</sup> , 300mm in length, length can be customized / UV resistant
Connector	MC4 Compatible
Bifaciality	80±5%
Packing	37pcs/box, 962pcs/40'HQ

## Product Image

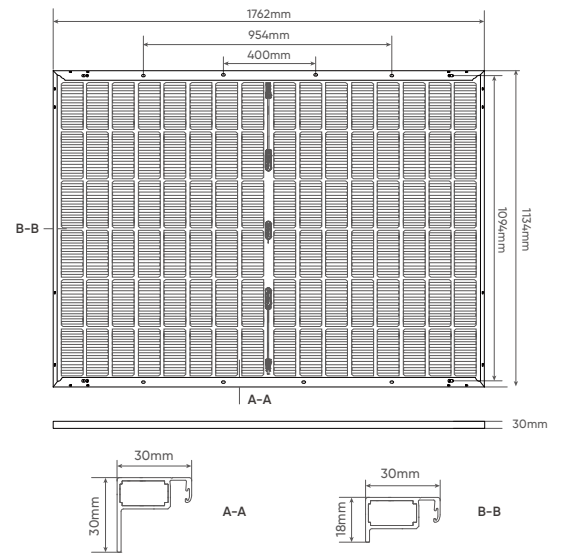


## Electrical Parameters (STC\*)

Module Type: SE6R-48HBD	445	450	455	460	465
Maximum Power (Pmax/W)	445	450	455	460	465
Open Circuit Voltage (Voc/V)	35.63	35.88	36.13	36.38	36.63
Short Circuit Current (Isc/A)	15.90	15.97	16.02	16.09	16.16
Voltage at Maximum Power (Vmp/V)	29.58	29.78	29.98	30.18	30.38
Current at Maximum Power (Imp/A)	15.04	15.11	15.18	15.24	15.30
Module Efficiency (%)	22.27	22.52	22.52	22.63	22.75

\*STC: Irradiance\*1000W/m<sup>2</sup>, cell temperature 25°C, AM=1.5. Tolerance of Pmax is within ±3%.

## Drawings



## Electrical Parameters (NMOT\*\*)

Maximum Power (Pmax/W)	339	343	347	351	355
Open Circuit Voltage (Voc/V)	33.82	34.08	34.34	34.60	34.86
Short Circuit Current (Isc/A)	12.79	12.85	12.88	12.93	12.99
Voltage at Maximum Power (Vmp/V)	27.86	28.05	28.24	28.43	28.62
Current at Maximum Power (Imp/A)	12.17	12.23	12.29	12.35	12.41

\*\*NMOT: Under Nominal Module Operating Temperature (NMOT), irradiance of 800W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1m/s.

## Electrical Parameters (At 10% Bifacial Power Output)

Output Power (Pmax/W)	490	495	501	506	511
Open Circuit Voltage (Voc/V)	35.63	35.88	36.13	36.38	36.63
Short Circuit Current (Isc/A)	17.45	17.53	17.59	17.66	17.72
Voltage at Maximum Power (Vmp/V)	29.58	29.78	29.98	30.18	30.38
Current at Maximum Power (Imp/A)	16.55	16.62	16.69	16.77	16.83

## Temperature Characteristics

NMOT	41±3°C
Temp. Coefficient of Voc	-0.25%/°C
Temp. Coefficient of Isc	+0.046%/°C
Temp. Coefficient of Pmax	-0.30%/°C

## Maximum Rating

Output Tolerance	0~+5W
Operating Temperature	-40°C~+85°C
Wind Load/Snow Load	2400Pa/5400Pa
Fuse Current	25A

## Characteristics (SE6R-48HBD-450W)

