

EVO B

# 470-500W

SE5R-54HBC

High Efficiency Back Contact Mono Glass  
Black Frame Solar PV Module



25.0% Max. Module Efficiency

## High-efficiency Cells

The cell efficiency is higher than 25%.

## Outstanding Performance

EVO B improves power generation capacity greatly with comprehensive upgrade of Back Contact cells and modules.

## Aesthetic Appearance

EVO B simplifies the complexity and redefines the aesthetic concept of photovoltaic modules.

## Market-leading Reliability

EVO B pioneers the adoption of full back welding technology to effectively improve the resistance to micro cracking of modules.

## Optimized Balance of System (BOS)

Significant savings on mounting structure, cabling, and labour cost.

## Quality Management System and Product Certification

IEC 61215, IEC 61730, UL 61730

ISO9001:2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

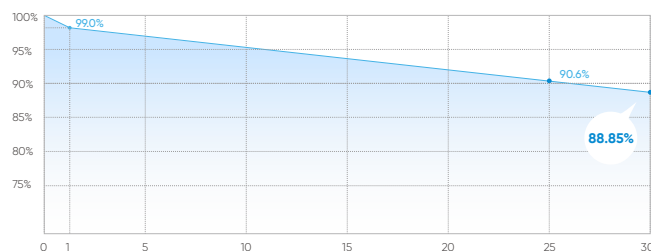
ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

## Quality Guarantee

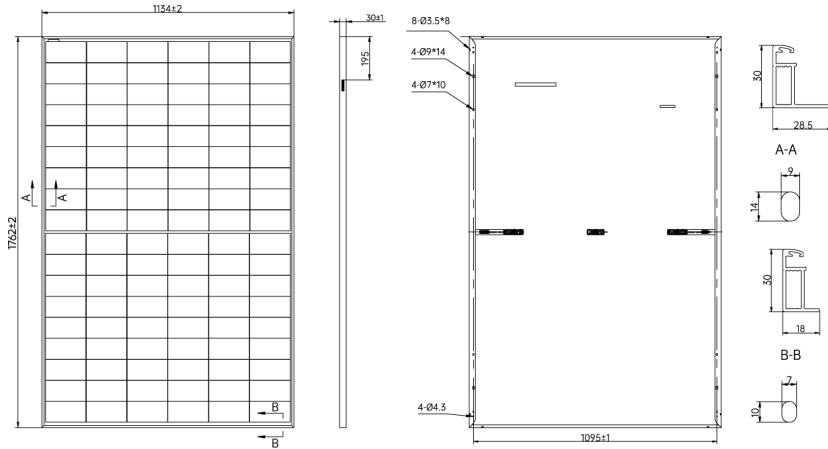
25-year Warranty for Materials and Processing

30-year Warranty for Extra Linear Power Output

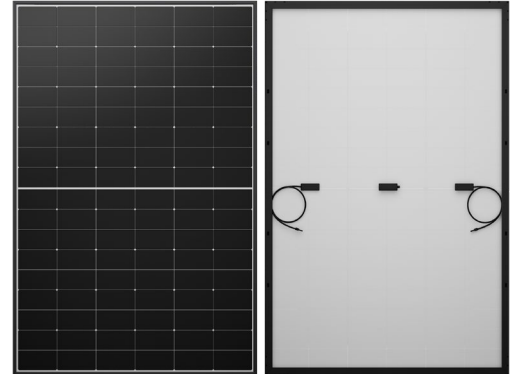


Drawings

(Unit: mm)



Product Image



Mechanical Characteristics

Cell Orientation	108 (6×18)
Junction Box	IP68, 3 bypass diodes
Output Cable	4mm <sup>2</sup> , ±1200mm length can be customized
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Black Anodized aluminum
Weight	21.1kg±3%
Dimension	1762 × 1134 × 30mm
Packaging	37pcs per pallet / 222pcs per 20'GP / 962pcs per 40'HC
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

Operating Parameters

Operational Temperature	-40°C~+85°C
Power Output Tolerance	0~3%
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V (IEC)
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	45±2°C

Temperature Ratings (STC\*)

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.220%/°C
Temperature Coefficient of Pmax	-0.260%/°C

Electrical Parameters (STC\*)

Module Type: SE5R-54HBC	470	475	480	485	490	495	500
Maximum Power (Pmax/W)	470	475	480	485	490	495	500
Open Circuit Voltage (Voc/V)	40.70	40.80	40.90	41.00	41.10	41.20	41.30
Short Circuit Current (Isc/A)	14.72	14.76	14.80	14.84	14.88	14.92	14.96
Voltage at Maximum Power (Vmp/V)	34.30	34.40	34.50	34.60	34.70	34.80	34.90
Current at Maximum Power (Imp/A)	13.71	13.81	13.92	14.02	14.13	14.23	14.33
Module Efficiency (%)	23.50	23.80	24.00	24.30	24.50	24.80	25.00

Electrical Parameters (NOCT\*)

Maximum Power (Pmax/W)	356	360	364	367	371	375	379
Open Circuit Voltage (Voc/V)	38.61	38.71	38.80	38.90	38.99	39.09	39.18
Short Circuit Current (Isc/A)	11.89	11.93	11.96	11.99	12.02	12.06	12.09
Voltage at Maximum Power (Vmp/V)	32.54	32.64	32.73	32.83	32.92	33.02	33.11
Current at Maximum Power (Imp/A)	10.96	11.04	11.13	11.21	11.29	11.37	11.46

\*STC: AM1.5 1000W/m<sup>2</sup> 25°C    \*NOCT: AM1.5 800W/m<sup>2</sup> 20°C 1m/s