



KTMK
SOLAR

465-495W

SE5R-54HBC

High Efficiency Back Contact Dual Glass
Black Frame Solar PV Module

24.8%

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

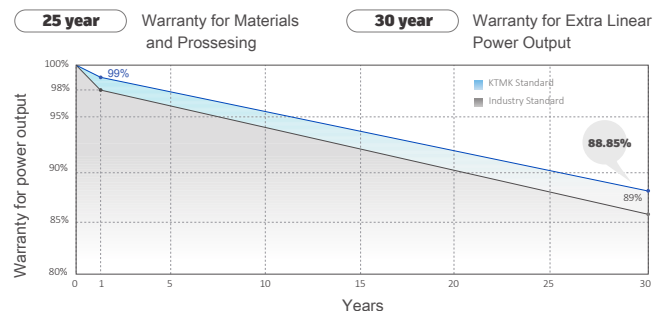
ISO9001: 2015: ISO Quality Management System

ISO14001: 2015: ISO Environment Management System

ISO45001: 2018: Occupational Health and Safety

IEC62941: Guideline for module design qualification and type approval

Quality Guarantee



KTMK
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KTMK Solar Co., Ltd.

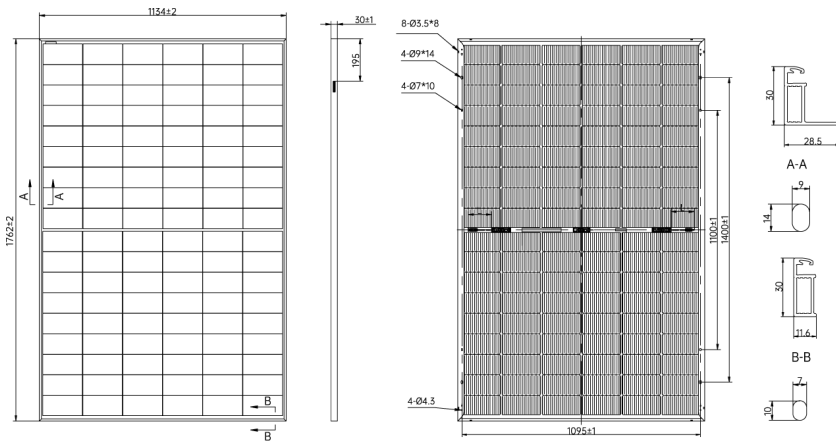
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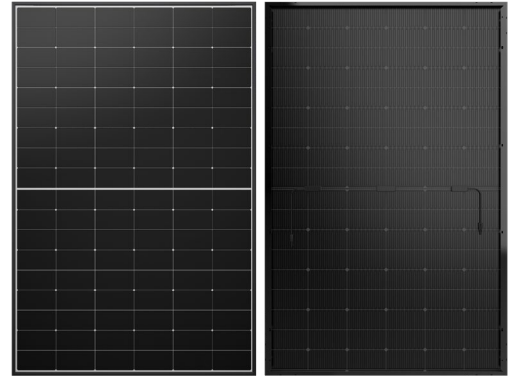
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Drawings



Product Image



Mechanical Characteristics

Cell Orientation	108 (6×18)
Junction Box	IP68, 3 bypass diodes
Output Cable	4mm ² , ±1200mm length can be customized
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Black Anodized aluminum
Weight	24.2kg±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	465	470	475	480	485	490	495
Maximum Power (Pmax/W)	465	470	475	480	485	490	495
Open Circuit Voltage (Voc/V)	40.60	40.70	40.80	40.90	41.00	41.10	41.20
Short Circuit Current (Isc/A)	14.69	14.72	14.76	14.80	14.84	14.88	14.92
Voltage at Maximum Power (Vmp/V)	34.20	34.30	34.40	34.50	34.60	34.70	34.80
Current at Maximum Power (Imp/A)	13.60	13.71	13.81	13.92	14.02	14.13	14.23
Module Efficiency (%)	23.30	23.50	23.80	24.00	24.30	24.50	24.80

Electrical Parameters (NOCT*)

Maximum Power (Pmax/W)	352	356	360	364	367	371	375
Open Circuit Voltage (Voc/V)	38.52	38.61	38.71	38.80	38.90	38.99	39.09
Short Circuit Current (Isc/A)	11.87	11.89	11.93	11.96	11.99	12.02	12.06
Voltage at Maximum Power (Vmp/V)	32.45	32.54	32.64	32.73	32.83	32.92	33.02
Current at Maximum Power (Imp/A)	10.87	10.96	11.04	11.13	11.21	11.29	11.37

*STC: AM1.5 1000W/m² 25°C *NOCT: AM1.5 800W/m² 20°C 1m/s