UNITED ENERGY | 安徽合纵

Delivering Easy and Secure Turnkey Energy Solutions

Back Contact Technology

UE500B-54HBD

Topcon BC Technology Solar Module with Bifacial Double Glass

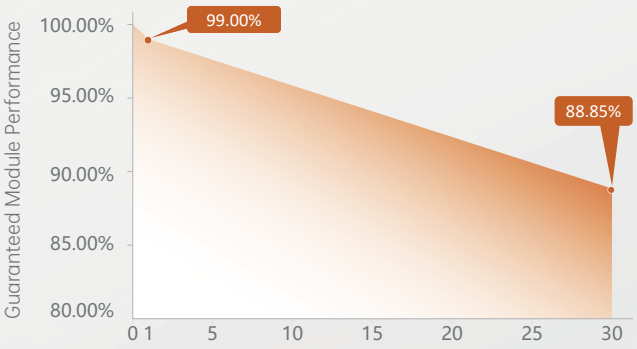
480-500 W | Maximum Efficiency | 24.5 %

- Partial Shading Optimisation
- Better Temperature Coefficient
- Higher Power
- More Aesthetic Values
- Micro-crack Resistance
- Lower BOS

Quality Guarantee

15 year Materials Warranty

30 year Power Warranty





Quality Management System and Product Certification

IEC 61215, IEC 61730, UL 61730

ISO9001: 2015: ISO Quality Management System.

ISO14001: 2015:ISO Environmental Management System.

ISO45001: 2018: Occupation Health and Safety.

IEC62941:Guideline for module design qualification and type approval.

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United Energy Co., LTD

UE500B-54HBD | 480~500W

500W Maximum Power | **24.5%** Maximum Efficiency | **0~+3%** Power Tolerance

Electrical Parameters(STC*)

Maximum power (Pmax/W)	480	485	490	495	500
Open Circuit Voltage (Voc/V)	40.76	40.86	41.02	41.15	41.28
Short Circuit Current (Isc/A)	14.96	15.03	15.10	15.17	15.24
Voltage at Maximum power (Vmp/V)	33.84	33.94	34.04	34.14	34.24
Current at Maximum Power (Imp/A)	14.19	14.30	14.40	14.50	14.60
Module Efficiency(%)	23.50	23.80	24.00	24.30	24.50

*STC: Irradiance 1000W/m², Cell temperature 25°C, AM1.5, Power measurement tolerance ±3%

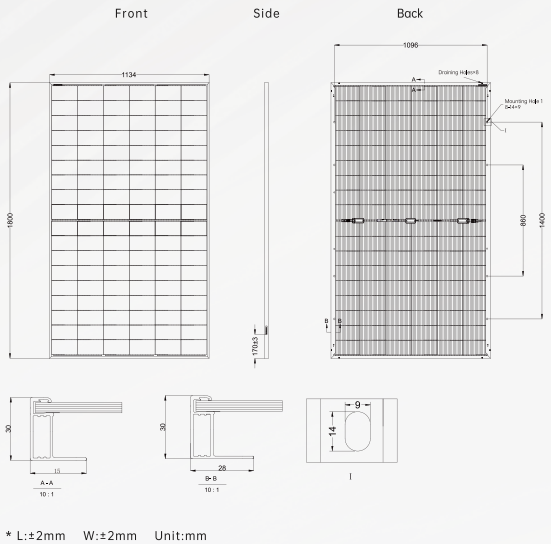
* BNPI: Front irradiance 1000W/m², rear irradiance 135W/m², ambient temperature 25°C, AM1.5, power measurement tolerance ±3%.

Electrical Parameters(NOCT*)

Maximum power (Pmax/W)	364	368	372	375	379
Open Circuit Voltage (Voc/V)	38.67	38.80	38.92	39.04	39.16
Short Circuit Current (Isc/A)	12.09	12.15	12.21	12.26	12.32
Voltage at Maximum power (Vmp/V)	31.11	32.20	32.30	32.40	32.49
Current at Maximum Power (Imp/A)	11.35	11.44	11.51	11.59	11.67

*The additional gain from the rear versus the power from the front depends on parameters such as installation (structure, height, tilt, etc.) and ground albedo.

Engineering Drawings



* L:±2mm W:±2mm Unit:mm

Mechanical Parameters

Cell size	182 * 182
No. of cells	108 (54×2)
Glass	Dual glass, 2.0 + 2.0mm coated semi tempered glass
Frame	Black anodized aluminum
Weight	24.8kg
Dimension	1800×1134×30mm
Output Cables	TüV 1×4mm , (+)300mm, (-)200mm, or Customized Length
Connector	MC4 Compatible/MC4-Evo2
Maximum static load	Front 5400Pa / Back 2400Pa*
Hailstone Test	25 mm diameter hail at 23 m/s
Safety protection level	Class II
IEC component fire rating	Class C
Packaging	37 pcs per pallet, 222 pcs per 20' GP, 888 pcs per 40' HC

Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	30A
Double-sided Ratio	70±5%

Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of Pmax	-0.26%/°C
Temperature Coefficient of Voc	-0.22%/°C
Temperature Coefficient of Isc	+0.05%/°C

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