UNITED ENERGY | 安徽合纵

Delivering Easy and Secure Turnkey Energy Solutions

UNI T

UE450T-54HBD

430-450W

N-type TOPCon Bifacial Black Frame Dual Glass Solar Module

23.04%
Max Module Eff.

Positive power tolerance
(0-+5W) guaranteed

High module conversion efficiency
(up to 23.04%)

Slower power degradation
enabled by low LID Mono PERC technology: first year <1%, 0.40% year 2-30

Solid PID resistance
ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss
with lower operating current

Higher energy yield
with lower operating temperature

Reduced hot spot risk
with lower operating electrical design and lower operating current

Quality Management System and Product Certification

IEC 61215, IEC 61730, UL 61730

ISO9001: 2015: ISO Quality Management System.

ISO14001: 2015:ISO Environmental Management System.

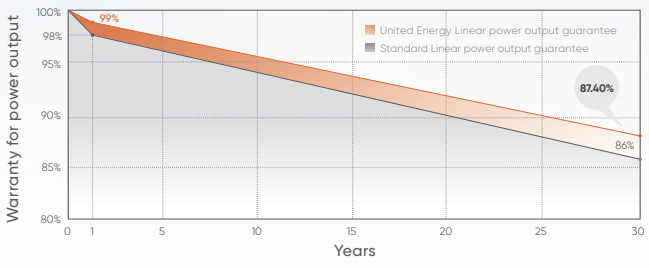
ISO45001: 2018: Occupation Health and Safety.

IEC62941:Guideline for module design qualification and type approval.

Quality Guarantee

15 year Materials Warranty

30 year Power Warranty



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UNI T 430~450W

Electrical Parameters(STC*)

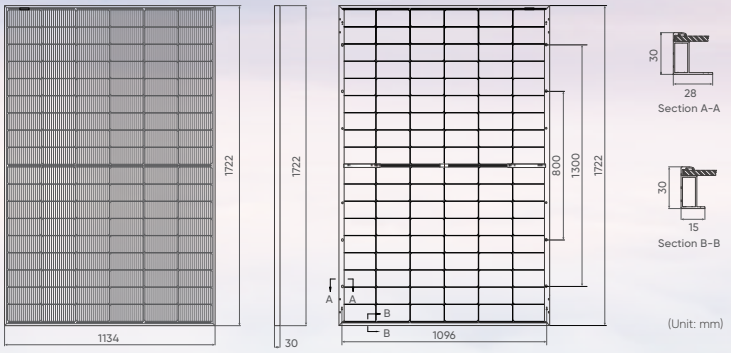
Module Type	430	435	440	445	450
Maximum power (Pmax/W)	430	435	440	445	450
Open Circuit Voltage (Voc/V)	38.96	39.20	39.44	39.68	39.92
Short Circuit Current (Isc/A)	14.13	14.20	14.27	14.34	14.41
Voltage at Maximum power (Vmpp/V)	32.04	32.25	32.45	32.66	32.86
Current at Maximum Power (Imp/A)	13.42	13.49	13.56	13.63	13.70
Module Efficiency(%)	22.02	22.28	22.53	22.79	23.04

Bifacial Output Rear side Power Gain

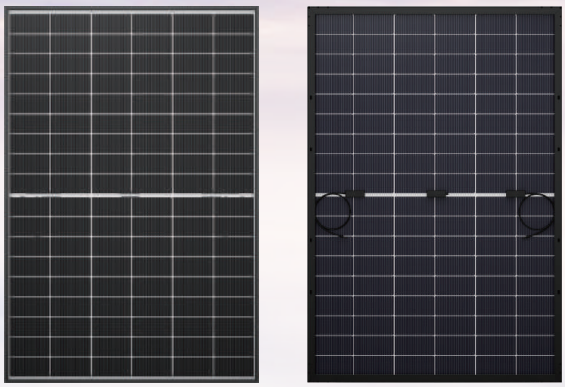
5%	Maximum power (Pmax/W)	452	457	462	467	473
	Module Efficiency STC (%)	23.12	23.36	23.63	23.93	24.20
15%	Maximum power (Pmax/W)	495	500	506	512	518
	Module Efficiency STC (%)	25.32	25.59	25.88	26.20	26.50
25%	Maximum Power (Pmax/W)	538	544	550	556	563
	Module Efficiency STC (%)	27.53	27.82	28.14	28.50	28.80

1. Standard Test Conditions [STC]: irradiance 1000W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Tolerance of Pm: 0~+5W, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±3%.

Design(mm)



Product Image



Design(mm)

Solar Cells	N-type Mono
No. of Cells	108 (6×18)
Dimensions	1722 × 1134 × 30mm
Weight	23.5kg
Glass	Front: 2.0mm coated semi-tempered glass; Back:2.0mm semi-tempered glass
Frame	Anodized aluminium alloy
Junction Box	Ip68 rated (3 Bypass Diodes)
Output Cables	4mm², 300mm (+) / 300mm (-), Length can be customized
Connectors	Mc4 compatible
Mechanical load test	5400Pa
Packaging	36pcs/box, 936pcs/40'HQ

Operating Characteristics

Operating Module Temperature	-40°C to +85°C
Maximun System Voltage	1500V DC (IEC)
Maximun Series Fuse Rating	30A
Power Tolerance	0/+5W

Temperature Characteristics

Nominal Operating Temperature (NMOT)	45±2°C
Temperature Coefficient of Pmax	-0.29%°C
Temperature Coefficient of Voc	-0.25%°C
Temperature Coefficient of Isc	+0.045%°C

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