UKSOL Ltd, Building 1, Chalfont Park, Gerrards Cross, SL9 0BG

UKSOL

MCS CERTIFIED

460W

182mm *210mm Battery Cell Series, 96 Cells, TOPCon Bifacial Solar Module

23.5% Module Efficiency

470W Highest Power Output

Product Advantages

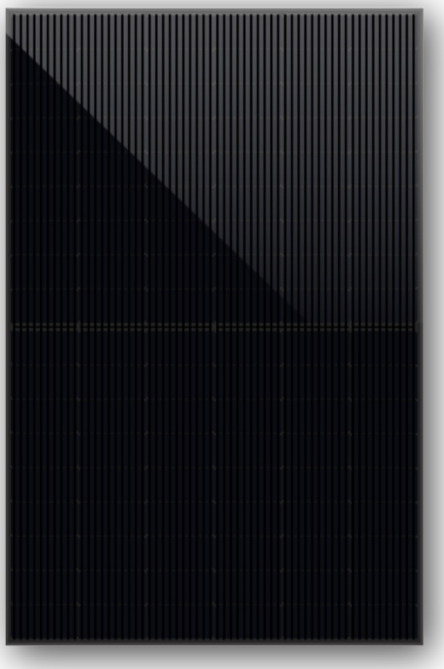
16BB half-cut cell technology
New circuit design, lower internal current, lower Rs loss
Ga dopped wafer, attenuation<1% (1st year) / ≤0.40% (Linear)

Significantly lower the risk of hot-spot
Special circuit design with much lower hot spot temperature

Lower LCOE
2% more power generation, lower LCOE

Excellent Anti-PID performance
2 times of industry standard Anti-PID test by TUV SUD

IP68 junction box
High waterproof level



Half Cell, MBB Technology
Series-then-parallel cell connection design, more reliable soldering technology

PV CYCLE

Backed by a 30-Year British Warranty
- ✓ 30 Year Performance Warranty
- ✓ 15 Year Materials & Workmanship Warranty

LOW RISK BRITISH PROCUREMENT

BRITISH TECHNICAL SUPPORT

ALWAYS GRADE "A" CELLS

BRITISH QUALITY STANDARDS

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WEEE registration number (WPRN) is WEE/MM9084AA

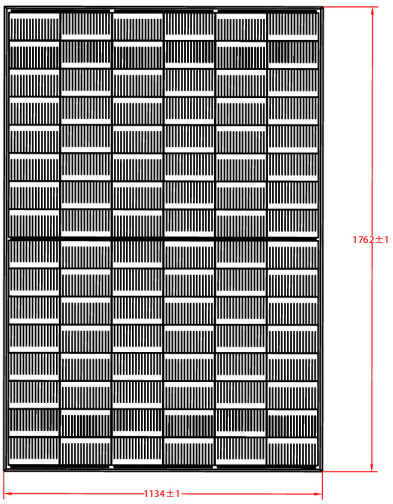
UKS-S96/M10N-R1-BG

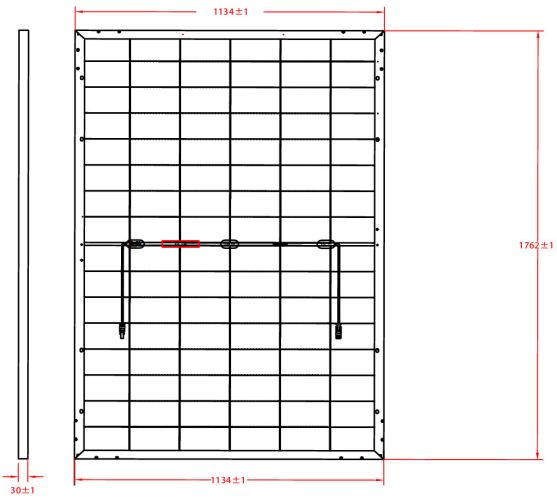
ELECTRICAL DATA (STC)					
Peak Power Watts-Pmax (Wp)*	450	455	460	465	470
Maximum Power Voltage-Vmp (V)	29.7	29.9	30.1	30.3	30.5
Maximum Power Current-Imp (A)	15.15	15.22	15.28	15.35	15.41
Open-Circuit Voltage (Voc/V)	35.6	35.8	36.0	36.2	36.4
Short-Circuit Current (Isc/A)	16.14	16.23	16.32	16.38	16.45
Module Efficiency ηm (%)	22.5	22.8	23.0	23.3	23.5
Power Tolerance-PMAX (W)			0~+5		
STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5; *Measuring tolerance: ±3%					

ELECTRICAL DATA (BNPI)					
Peak Power-Pmax (Wp)*	490	495	500	505	510
Maximum Power Voltage-Vmp (V)	29.7	29.9	30.1	30.3	30.5
Maximum Power Current-Imp (A)	16.50	16.56	16.61	16.67	16.72
Open-Circuit Voltage (Voc/V)	35.6	35.8	36.0	36.2	36.4
Short-Circuit Current (Isc/A)	17.74	17.82	17.90	17.95	18.01
BNPI: Irradiance 1000W/m², module temperature 25°C					

ELECTRICAL DATA (NMOT)					
Maximum Power-Pmax (Wp)*	339	343	347	351	355
Maximum Power Voltage-Vmp (V)	27.7	27.9	28.1	28.3	28.5
Maximum Power Current-Imp (A)	12.24	12.29	12.35	12.40	12.46
Open-Circuit Voltage (Voc/V)	33.8	34.0	34.2	34.4	34.6
Short-Circuit Current (Isc/A)	12.94	13.02	13.09	13.15	13.20
NMOT: Irradiance 8000W/m², module temperature 20°C, AM=1.5; wind speed 1m/s					

Specifications may change without notice.





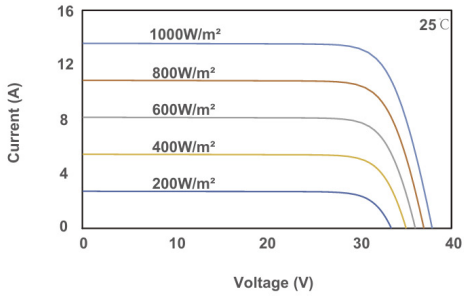
MECHANICAL DATA	
Solar Cells	N-Type TOPCon Monocrystalline Silicon
Cell Orientation	96 pcs
Module Dimensions	1762x1134x30mm
Weight	25.5kg
Front Glass	2.0mm, High Transmission, AR Coated heat strengthened glass
Encapsulant material	POE/EVA
Back glass	2.0mm, heat strengthened glass (white grid glass)
Frame	30mm anodized aluminium alloy
Junction Box	IP68 rated
Cables	Photovoltaic technology cable 4.0mm2 Cable length 350mm or customised length
Temperature Ratings	
NMOT (Nominal Module Operating Temperature)	42°C (±2°C)
Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C
(Do not connect fuse in combiner box with two or more strings in parallel connection)	

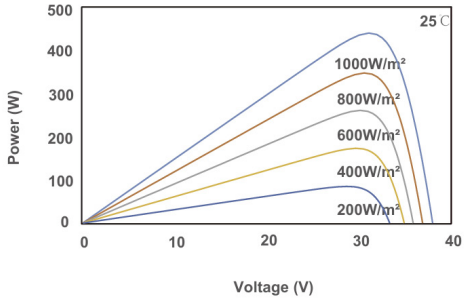
MAXIMUM RATINGS	
Operational temperature	-40°C+85°C
Maximum System Voltage	1500DC (IEC)
Max Series Fuse Rating	35A

PACKING CONFIGURATION	
Modules per box	36 pieces
Modules per 40' container	936 pieces

I-V CURVE

Current-Voltage & Power-Voltage Curve (450)





1.00% First Year Power Degradation

0.40% Annual Degradation

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