THAIMAXWELL SOLAR



BIPRO
108-cell TMS-ED7G54M

415 - 435W Bifacial Dual Glass
MBB Half-Cut Mono N-type

KEY FEATURES

MBB Half-Cut Cell Technology
New circuit design, lower internal current, lower Rs loss
N-type cell technology, attenuation <1% (1st year) / ≤0.4% (Linear)

Industry Leading High Yield
Bifacial PERC cell technology,
5%-25% more yield depends on different conditions

Excellent Anti-PID performance
2 times of industry standard Anti-PID test

Wider Application
No water-permeability and high wear-resistance,
can be widely used in high-humid, windy and dusty area

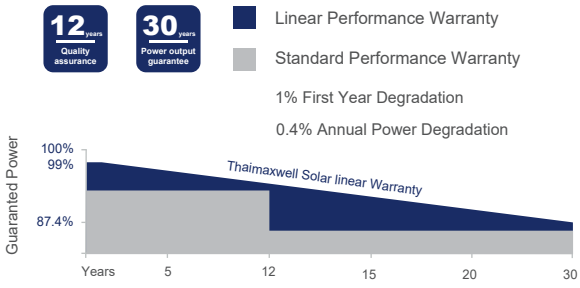
IP68 junction box
High waterproof level

SYSTEM & PRODUCT CERTIFICATES

// ISO 9001: 2015 Quality Management System

// ISO 14001: 2015 Environment Management System

PERFORMANCE WARRANTY



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ELECTRICAL CHARACTERISTICS

Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	415	316	420	320	425	324	430	328	435	332
Operating Voltage (Vmpp/V)	31.32	29.98	31.51	30.17	31.70	30.35	31.88	30.52	32.06	30.69
Operating Current (Impp/A)	13.25	10.56	13.33	10.63	13.41	10.69	13.49	10.75	13.57	10.82
Open-Circuit Voltage (Voc/V)	37.92	36.30	38.11	36.48	38.30	36.67	38.49	36.85	38.68	37.03
Short-Circuit Current (Isc/A)	13.99	11.25	14.07	11.32	14.15	11.38	14.23	11.45	14.31	11.51
Module Efficiency (%)	21.3		21.5		21.8		22.0		22.3	

REAR SIDE POWER GAIN(REFERENCE TO 430W FRONT)

Pmax gain	5%	15%	25%
Pmax/W	452	495	538
Vmpp/V	31.88	31.98	31.98
Impp/A	14.16	15.46	16.81
Voc/V	38.49	38.59	38.59
Isc/A	14.94	16.32	17.74

STC: Irradiance 1000W/m², Spectra at AM1.5, Module Temperature 25°C, Power output tolerance: 0~+5W,Test uncertainty for Pmax : ±3%
NMOT: Irradiance 800W/m², Spectra at AM1.5, Ambient Temperature 20°C, Wind speed 1m/s

MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline N-type 182*182 mm
No. of Cells	108 (6*18)
Module Dimensions	1722*1134*35mm (67.80*44.65*1.38inches)
Weight	24.4kg (53.79lbs.)
Front Glass	2.0 mm AR Coating Semi-tempered Glass
Back Glass	2.0 mm Glazed Semi-tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm² (IEC), 12AWG(UL) 1100mm (44inches)
Connectors	T01/LJQ-3-CSY/MC4/MC4-EVO2

APPLICATION CONDITIONS

Maximun System Voltage	1500V/DC
Operating Temperature	-40°C ~ +85°C
Maximun Series Fuse	30A
Mechanical Load	Front side 5400Pa,Back side 2400Pa
Refer. Bifaciality Factor	80%±10%

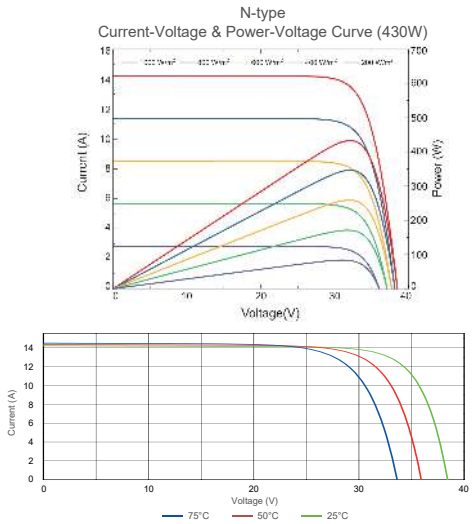
OPERATING CONDITIONS

Temperature Coefficient of Pmax	-0.31%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	+0.05%/°C
NMOT (Nominal Module Operating Temperature)	42±2°C

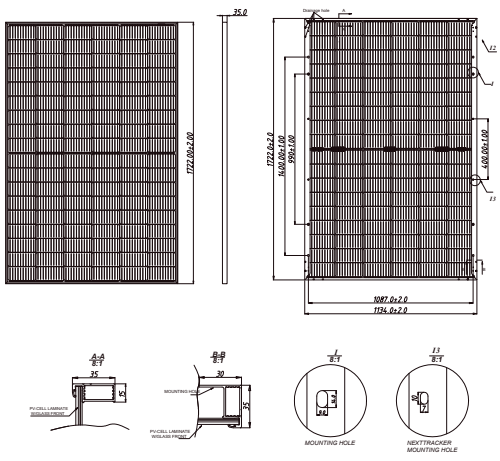
PACKING CONFIGURATION

Pieces Per Pallet	31	31(USA)
Pieces Per Container(40'HQ)	806	682

I-V CURVE



TECHNICAL DRAWINGS



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