

Talesun

BIPRO

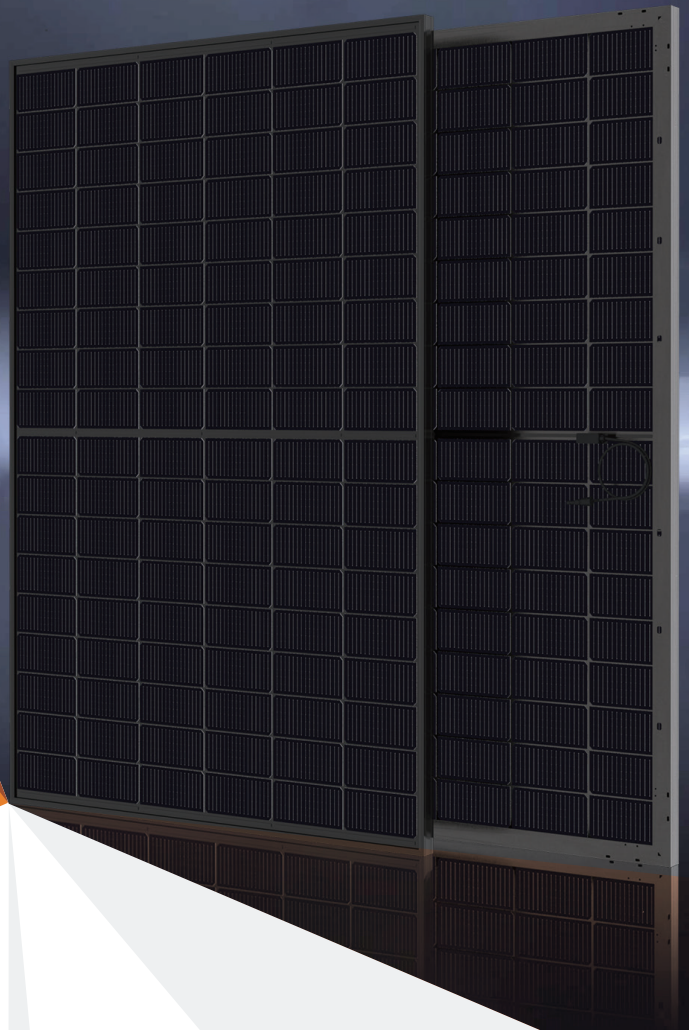
TM3G54M **108-cell**

495 - 520W

Bifacial Dual Glass

16BB Half-cut N-type

Full Black

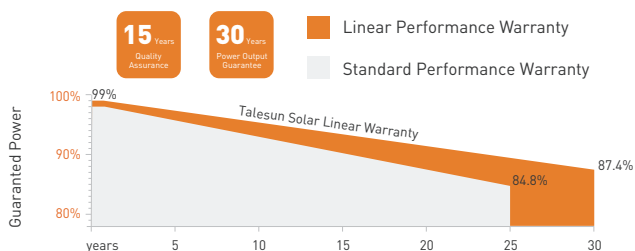


SYSTEM & PRODUCT CERTIFICATES

- IEC 61215 / IEC 61730 / UL 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational Health and Safety Management Systems



PERFORMANCE WARRANTY



KEY FEATURES



16BB Half-cut Cell Technology

Lower LID/LeTID degradation and better low light performance
Attenuation $\leq 1\%$ (1st year) / $\leq 0.4\%$ (Linear)



Industry Leading High Yield

Bifacial N-type cell technology,
Dual-sided power generation gain from back side depending on albedo, significantly reduce LCOE



Excellent Anti-PID Performance

192 hours 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

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* GL-EN-Version 2026.04.22

ELECTRICAL CHARACTERISTICS

Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	495	378	500	381	505	385	510	387	515	390	520	393
Operating Voltage (Vmpp/V)	33.14	31.17	33.38	31.34	33.63	31.58	33.87	31.75	34.11	31.90	34.35	32.07
Operating Current (Impp/A)	14.94	12.13	14.98	12.16	15.02	12.19	15.06	12.20	15.10	12.22	15.14	12.25
Open-Circuit Voltage (Voc/V)	39.85	37.80	40.09	38.05	40.34	38.29	40.58	38.54	40.82	38.78	41.06	39.02
Short-Circuit Current (Isc/A)	15.83	12.75	15.86	12.78	15.89	12.80	15.91	12.82	15.94	12.85	15.97	12.88
Module Efficiency [%]	22.26		22.48		22.71		22.93		23.16		23.38	

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

REAR SIDE POWER GAIN(REFERENCE TO 510W FRONT)

Pmax gain	5%	10%	15%	20%	25%
Pmax/W	536	561	587	612	638
Vmpp/V	33.87	33.87	33.87	33.87	33.87
Impp/A	15.81	16.57	17.32	18.07	18.83
Voc/V	40.58	40.58	40.58	40.58	40.58
Isc/A	16.71	17.50	18.30	19.09	19.89

MECHANICAL CHARACTERISTICS

Cell Type	N-type Mono-Crystallin [16Busbar]
No. of Cells	108pcs in series [6*18]
Module Dimensions	1961*1134*30mm [77.20*44.65*1.18inches]
Weight	28.1kg [61.95lbs.]
Front Glass	2.0mm AR Coating Semi-tempered Glass
Back Glass	2.0mm Glazed Semi-tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm² (IEC), 12AWG(UL) 350mm(+),250mm(-) or Customized Length
Connectors	MC4/MC4-EVO2A/Others

APPLICATION CONDITIONS

Maximum System Voltage	1500V/DC
Operating Temperature	-40°C~+85°C
Maximun Series Fuse	35A
Safety Protection Class	Class II
Mechanical Load*	Front side 5400Pa, Back side 2400Pa
Refer. Bifaciality Factor	80%±5%

*Refer to the installation manual for details

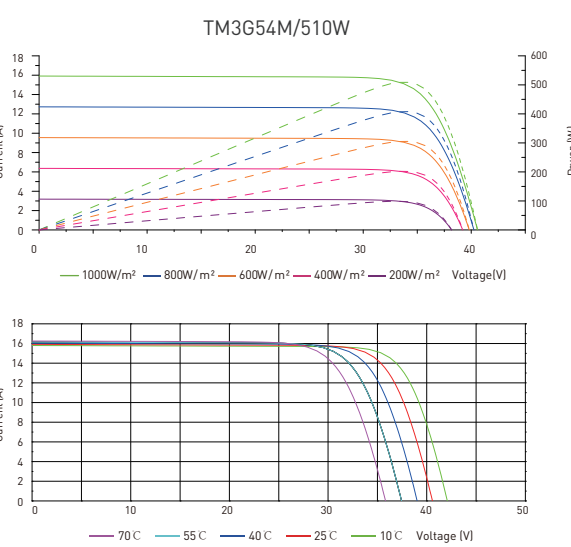
TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.29%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Isc	+0.043%/°C
Nominal Module Operating Temperature(NMOT)	43±2°C

PACKING CONFIGURATION

Pieces Per Pallet	37	36(USA)
Pieces Per Container[40'HQ]	888	648

Electrical Performance



TECHNICAL DRAWINGS

