

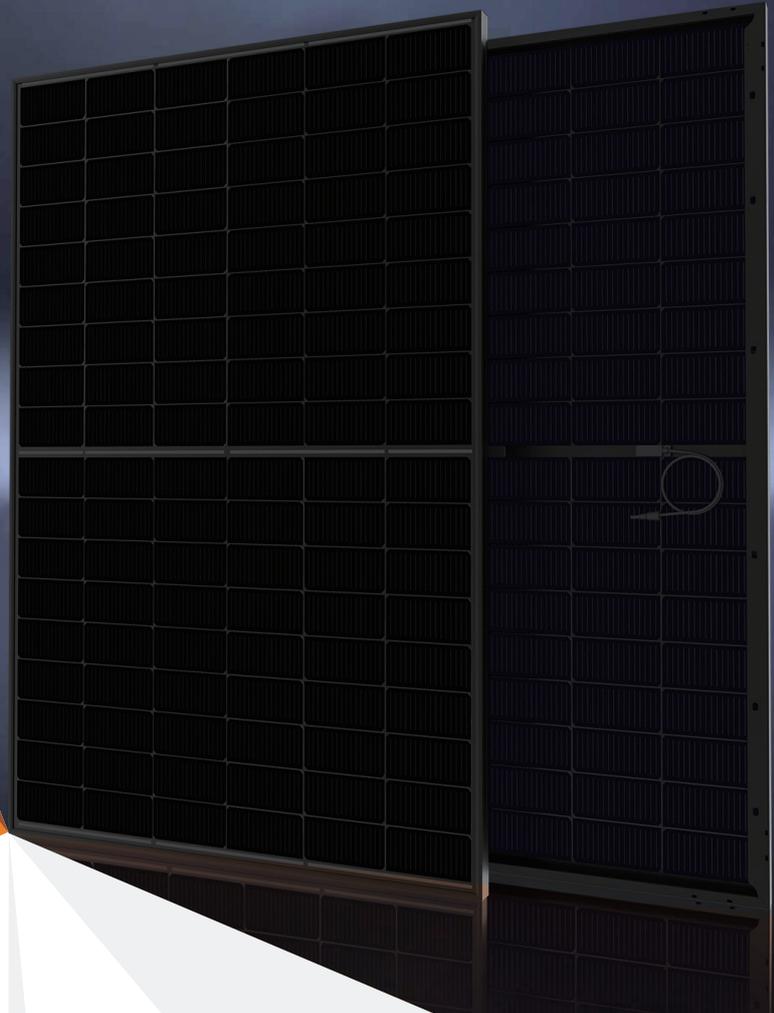
TALESUN

BIPRO

TM7G54M **108-cell**

430 - 450W

Bifacial Dual Glass
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 degradation and better low light performance



Industry Leading High Yield

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



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 2026.02.13

Suzhou Talesun Solar Technologies Co., Ltd.

TM7G54M - XXX (XXX represents Pmax at STC)
ELECTRICAL CHARACTERISTICS

Testing Condition	STC	BNPI								
Maximum Power (Pmax/W)	430	473	435	479	440	484	445	490	450	495
Operating Voltage (Vmpp/V)	32.68	32.68	32.81	32.81	32.94	32.94	33.07	33.07	33.20	33.20
Operating Current (Impp/A)	13.16	14.48	13.26	14.59	13.36	14.70	13.46	14.81	13.56	14.92
Open-Circuit Voltage (Voc/V)	39.00	39.16	39.15	39.31	39.30	39.46	39.45	39.61	39.60	39.76
Short-Circuit Current (Isc/A)	13.67	15.04	13.72	15.09	13.77	15.15	13.82	15.20	13.87	15.26
Module Efficiency (%)	22.00		22.30		22.50		22.80		23.00	

STC: Irradiance 1000W/m², Spectra at AM1.5, Module Temperature 25°C. Power output tolerance: 0~+5W, Test uncertainty for Pmax/Voc/Isc: ±3%±5%±5%
 BNPI: Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25°C, AM=1.5

REAR SIDE POWER GAIN(REFERENCE TO 445W FRONT)

	5%	10%	15%	20%	25%
Pmax gain	5%	10%	15%	20%	25%
Pmax/W	467	490	512	534	556
Vmpp/V	33.07	33.07	33.07	33.07	33.07
Impp/A	14.51	15.20	15.89	16.58	17.28
Voc/V	39.45	39.45	39.45	39.45	39.45
Isc/A	14.13	14.81	15.48	16.15	16.83

MECHANICAL CHARACTERISTICS

Cell Type	N-type Mono-Crystallin (16Busbar)
No. of Cells	108pcs in series (6*18)
Module Dimensions	1722*1134*30mm (67.80*44.65*1.18inches)
Weight	24.5kg (54.01lbs)
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	4mm ² (IEC), 12AWG(UL) 350mm(+),250mm(-) or Customized Length
Connectors	TALESUN(T01) Staubli(PV-KST4-EVO2A/XY,PV-KBT4-EVO2A/XY)

APPLICATION CONDITIONS

Maximum System Voltage	1500V DC
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	30A
Safety Protection Class	Class II
Test Mechanical load*	Front side +5400Pa, Back side -2400Pa
Refer. Bifaciality Factor	φVoc: 98±5%, φIsc: 80±5%, φPmax: 80±5%
Fire Rating	Class C
[T98]max	70°C

*Refer to the installation manual for details

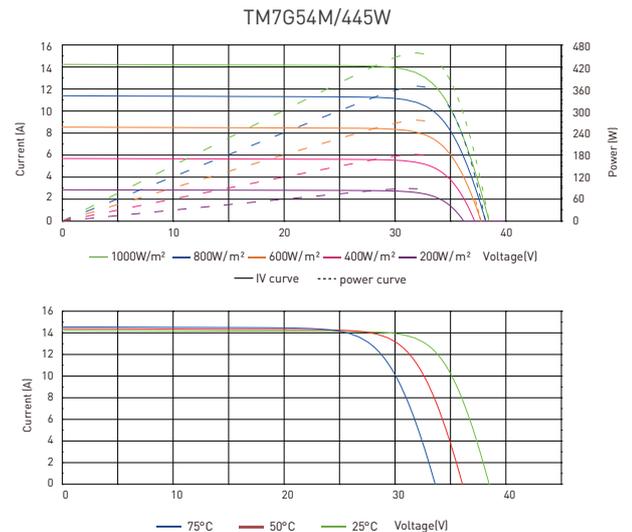
TEMPERATURE CHARACTERISTICS

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
Pieces Per Container(40'HQ)	962

Electrical Performance



TECHNICAL DRAWINGS

