



BIPRO

TM7G54M **108-cell**

405 - 425W

16BB Half-cut Mono 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

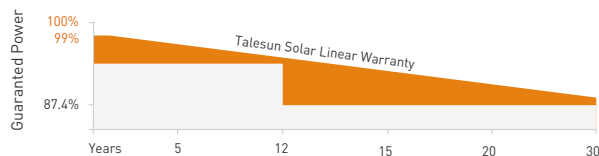


PERFORMANCE WARRANTY

12 Years
Quality Assurance

30 Years
Power Output Guarantee

Linear Performance Warranty



KEY FEATURES



16BB Half-cut Cell Technology

New circuit design, lower internal current, lower R_s loss
Ga doped wafer, attenuation $< 1\%$ (1st year) / $\leq 0.4\%$ (Linear)



Industry Leading High Yield

Bifacial TOPCon cell technology,
10%-30% 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

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* GL-EN-Version 2023.09.25

ELECTRICAL CHARACTERISTICS

Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	405	305	410	308	415	312	420	315	425	319
Operating Voltage (Vmpp/V)	30.95	29.60	31.14	29.70	31.33	29.80	31.51	29.90	31.70	30.10
Operating Current (Impp/A)	13.09	10.33	13.17	10.40	13.25	10.47	13.33	10.53	13.41	10.60
Open-Circuit Voltage (Voc/V)	37.54	35.60	37.73	35.80	37.92	36.00	38.11	36.20	38.30	36.30
Short-Circuit Current (Isc/A)	13.83	11.15	13.91	11.21	13.99	11.27	14.07	11.34	14.15	11.40
Module Efficiency (%)	20.75		21.00		21.26		21.51		21.77	

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 425W FRONT)

Pmax gain	5%	10%	15%	20%	25%
Pmax/W	446	468	489	510	531
Vmpp/V	31.70	31.70	31.70	31.70	31.70
Impp/A	14.08	14.75	15.42	16.09	16.76
Voc/V	38.30	38.30	38.30	38.30	38.30
Isc/A	14.94	15.65	16.36	17.07	17.79

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) 300mm in Length or Customized Length
Connectors	T01/LJQ-3-CSY/MC4/MC4-EV02

APPLICATION CONDITIONS

Maximun System Voltage	1500V/DC
Operating Temperature	-40°C~+85°C
Maximun Series Fuse	30A
Safety Protection Class	Class II
Mechanical Load	Front side 5400Pa, Back side 2400Pa
Refer. Bifaciality Factor	80%±5%

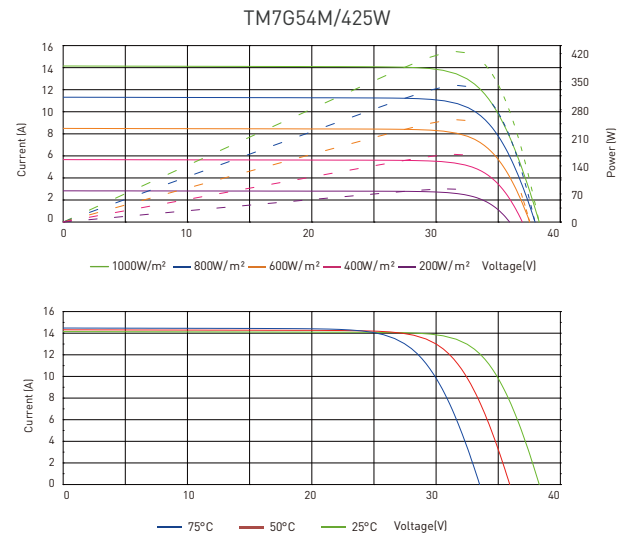
TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.30%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	+0.046%/°C
Nominal Module Operating Temperature(NMOT)	43±2°C

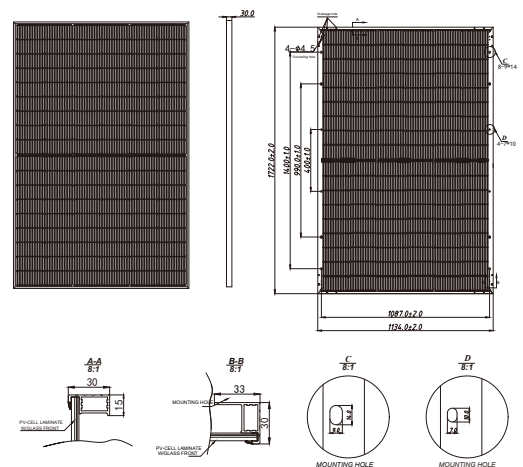
PACKING CONFIGURATION

Pieces Per Pallet	36	36(USA)
Pieces Per Container(40'HQ)	936	720

I-V CURVE



TECHNICAL DRAWINGS



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