



BIPRO

TM7G78M **156-cell**

630 - 650W

Bifacial Dual Glass

16BB Half-cut N-type

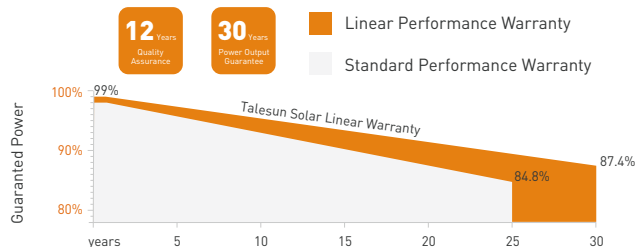


SYSTEM & PRODUCT CERTIFICATES

- 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 TOPCon 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

ELECTRICAL CHARACTERISTICS

Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	630	476	635	480	640	484	645	487	650	491
Operating Voltage (Vmpp/V)	47.80	44.80	47.97	45.00	48.15	45.20	48.34	45.40	48.53	45.60
Operating Current (Impp/A)	13.18	10.62	13.24	10.66	13.30	10.70	13.35	10.74	13.40	10.77
Open-Circuit Voltage (Voc/V)	56.37	53.30	56.55	53.50	56.73	53.70	56.92	53.90	57.10	54.10
Short-Circuit Current (Isc/A)	13.84	11.16	13.89	11.20	13.94	11.24	13.99	11.28	14.04	11.32
Module Efficiency (%)	22.50		22.70		22.90		23.10		23.30	

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 640W FRONT)

Pmax gain	5%	10%	15%	20%	25%
Pmax/W	672	704	736	768	800
Vmpp/V	48.15	48.15	48.15	48.15	48.15
Impp/A	13.97	14.63	15.30	15.96	16.63
Voc/V	56.73	56.73	56.73	56.73	56.73
Isc/A	14.64	15.33	16.03	16.73	17.43

MECHANICAL CHARACTERISTICS

Cell Type	N-type Mono-Crystallin (16Busbar)
No. of Cells	156pcs in series (6*26)
Module Dimensions	2465*1134*35mm (97.05*44.65*1.38inches)
Weight	35kg (77.2lbs.)
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	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%

*Refer to the installation manual for details

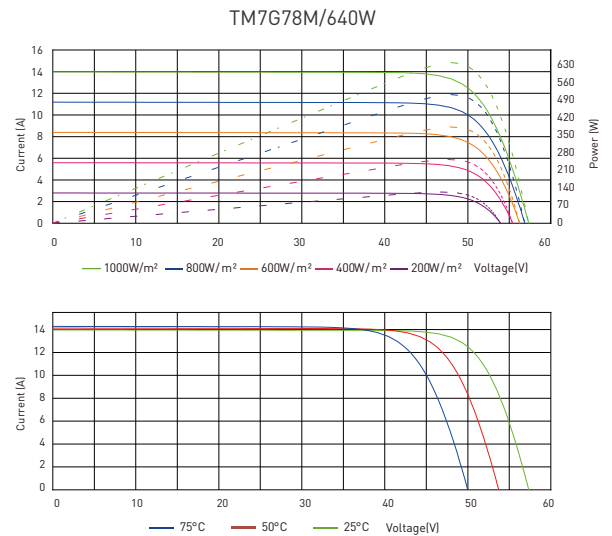
TEMPERATURE CHARACTERISTICS

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

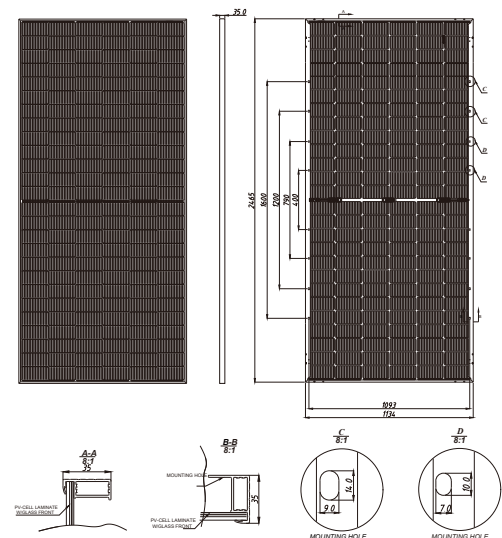
PACKING CONFIGURATION

Pieces Per Pallet	31	31(USA)
Pieces Per Container(40'HQ)	496	496

Electrical Performance



TECHNICAL DRAWINGS



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