



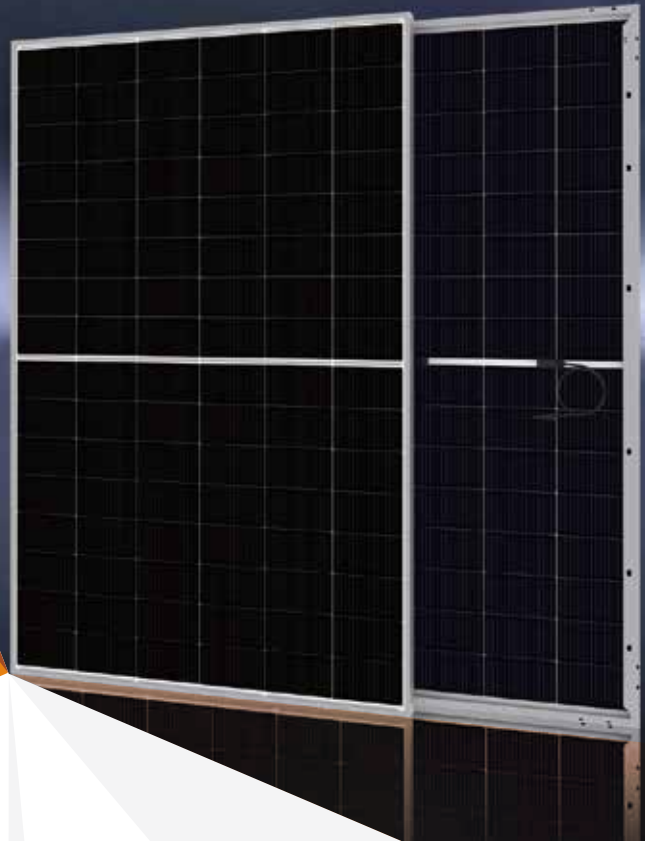
# BIPRO

TM3G48M **96-c**

435 - 455W

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

Guaranteed Power

## 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)



### Bifacial TOPCon Cell Technology

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



### 192 hours Anti-PID test



### High Wear-Resistance

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



### IP68 Waterproof Level

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## ELECTRICAL CHARACTERISTICS

Parameter	445	330	440	334	445	338	450	342	455	346
Open-circuit voltage (V <sub>oc</sub> )	29.22	27.50	29.52	27.70	29.79	28.00	30.09	28.20	30.34	28.40
Short-circuit current (I <sub>sc</sub> )	14.89	12.00	14.91	12.05	14.94	12.09	14.96	12.12	15.00	12.17
Maximum power (P <sub>m</sub> )	34.98	33.20	35.20	33.40	35.42	33.60	35.64	33.80	35.85	34.00
Maximum power point voltage (V <sub>mp</sub> )	15.76	12.71	15.80	12.74	15.83	12.76	15.86	12.79	15.90	12.82
Efficiency (%)	21.80	22.00	22.30	22.50	22.80					

Test conditions: 1000 W/m<sup>2</sup>, AM1.5, cell temperature 25°C, air mass 1.5, reference cell temperature 25°C, reference cell area 100 cm<sup>2</sup>, reference cell efficiency 30.7%, reference cell open-circuit voltage 0.61 V, reference cell short-circuit current 3.5 A/m<sup>2</sup>, reference cell maximum power 2.0 W/m<sup>2</sup>, reference cell efficiency 33.7%, reference cell open-circuit voltage 0.62 V, reference cell short-circuit current 3.5 A/m<sup>2</sup>, reference cell maximum power 2.1 W/m<sup>2</sup>.

## REAR SIDE POWER GAIN(REFERENCE TO 445W FRONT)

Parameter	5%	10%	15%	20%	25%
Open-circuit voltage (V <sub>oc</sub> )	467	490	512	534	556
Short-circuit current (I <sub>sc</sub> )	29.79	29.79	29.79	29.79	29.79
Maximum power (P <sub>m</sub> )	15.69	16.43	17.18	17.93	18.68
Maximum power point voltage (V <sub>mp</sub> )	35.42	35.42	35.42	35.42	35.42
Maximum power point current (I <sub>mp</sub> )	16.62	17.41	18.20	19.00	19.79

## MECHANICAL CHARACTERISTICS

Cell Type	N-type Mono-Crystallin (16Busbar)
Number of Cells	96pcs in series (6*16)
Dimensions	1762*1134*30mm (69.37*44.65*1.18inches)
Weight	24.7kg (54.45lbs.)
Front Glass	2.0mm AR Coating Semi-tempered Glass
Back Glass	2.0mm Glazed Semi-tempered Glass
Frame	Anodized Aluminium Alloy
Protection	IP68, 3 Bypass Diodes
Wiring	4mm <sup>2</sup> (IEC), 12AWG(UL) 350mm(+),250mm(-) or Customized Length
Mounting	T01/LJQ-3-CSY/MC4/MC4-EV02

## APPLICATION CONDITIONS

Operating Voltage	1500V/DC
Operating Temperature	-40°C~+85°C
Operating Current	35A
Operating Class	Class II
Operating Pressure	Front side 5400Pa, Back side 2400Pa
Operating Humidity	80%±5%

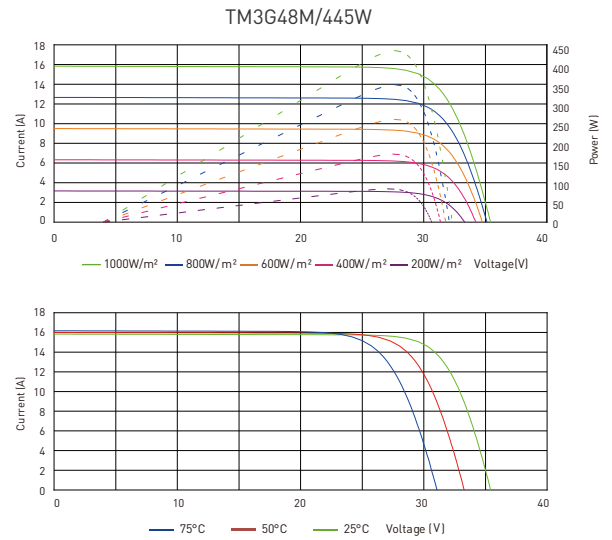
## TEMPERATURE CHARACTERISTICS

Temperature Coefficient of V <sub>oc</sub>	-0.29%/°C
Temperature Coefficient of I <sub>sc</sub>	-0.24%/°C
Temperature Coefficient of P <sub>m</sub>	+0.043%/°C
Temperature Coefficient of V <sub>mp</sub>	43±2°C

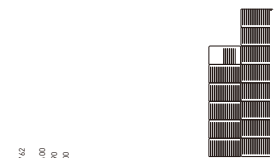
## PACKING CONFIGURATION

Number of Panels	36	36(USA)
Number of Panels (40 cells)	936	720

## Electrical Performance



## TECHNICAL DRAWINGS



1087  
1134



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