

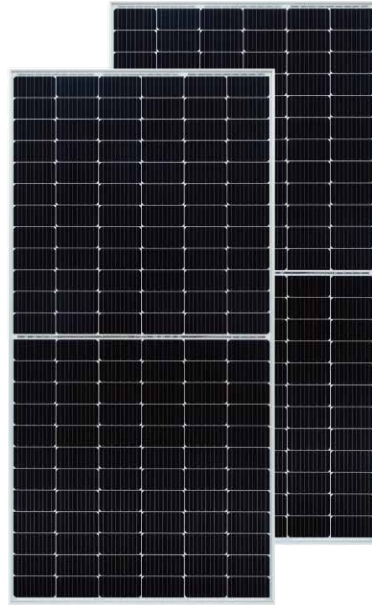
BIPRO

TD6I72M **144 half-cell**

435 - 455W

bifacial dual glass

9BB half-cut mono perc



KEY FEATURES



9BB half-cut cell technology

New circuit design, lower internal current, lower Rs loss
Ga doped wafer, attenuation < 2% (1st year) / ≤ 0.45% (Linear)



Industry leading high yield

Bifacial PERC cell technology,
5%-25% more yield depends on different conditions



Excellent Anti-PID performance

2 times of industry standard Anti-PID test by TUV SUD



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

SYSTEM & PRODUCT CERTIFICATES

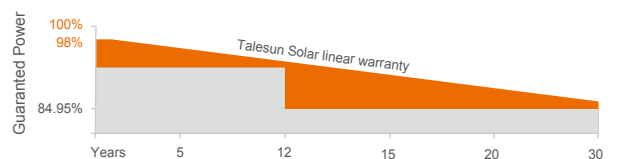
- IEC 61215 / IEC 61730 / UL 61730
- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational Health and Safety Management Systems



PERFORMANCE WARRANTY



- Linear Performance Warranty
- Standard Performance Warranty



ELECTRICAL PARAMETERS

Performance at STC (Power Tolerance 0 ~ +3%)

| | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|
| Maximum Power (Pmax/W) | 435 | 440 | 445 | 450 | 455 |
| Operating Voltage (Vmpp/V) | 41.4 | 41.6 | 41.8 | 42.0 | 42.2 |
| Operating Current (Impp/A) | 10.51 | 10.58 | 10.65 | 10.72 | 10.79 |
| Open-Circuit Voltage (Voc/V) | 49.8 | 50.0 | 50.2 | 50.4 | 50.6 |
| Short-Circuit Current (Isc/A) | 11.16 | 11.22 | 11.29 | 11.36 | 11.43 |
| Module Efficiency ηm(%) | 20.0 | 20.2 | 20.5 | 20.7 | 20.9 |

Performance at NMOT

| | | | | | |
|-------------------------------|------|------|------|------|------|
| Maximum Power (Pmax/W) | 323 | 327 | 330 | 334 | 338 |
| Operating Voltage (Vmpp/V) | 38.7 | 38.9 | 39.1 | 39.3 | 39.4 |
| Operating Current (Impp/A) | 8.36 | 8.41 | 8.47 | 8.52 | 8.57 |
| Open-Circuit Voltage (Voc/V) | 46.6 | 46.8 | 46.9 | 47.1 | 47.3 |
| Short-Circuit Current (Isc/A) | 9.00 | 9.04 | 9.10 | 9.16 | 9.21 |

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s

Electrical characteristics with different rear side power gain (refer to 440W front)

| Pmax gain | Pmax/W | Vmpp/V | Impp/A | Voc/V | Isc/A |
|-----------|--------|--------|--------|-------|-------|
| 5% | 462 | 41.6 | 11.11 | 50.0 | 11.78 |
| 10% | 484 | 41.6 | 11.64 | 50.0 | 12.34 |
| 15% | 506 | 41.6 | 12.17 | 50.0 | 12.90 |
| 20% | 528 | 41.6 | 12.70 | 50.2 | 13.46 |
| 25% | 550 | 41.6 | 13.23 | 50.2 | 14.03 |

MECHANICAL SPECIFICATION

| | |
|---------------------------------|---|
| Cell Type | Monocrystalline |
| Cell Dimensions | 166*166mm |
| Cell Arrangement | 144 (6*24) |
| Weight | 28kg (61.73lbs) |
| Module Dimensions | 2094*1038*30mm (82.44*40.87*1.18inches) |
| Cable Length (Portrait) | Portrait 300mm/Landscape 1200mm/Customized |
| Cable Cross Section Size | TUV: 4mm ² (0.006inches ²)/UL: 12AWG |
| Front Glass | 2.0mm (0.08 inches) AR Coating Semi-tempered Glass |
| Back Glass | 2.0mm (0.08 inches) Glazed Semi-tempered Glass |
| No. of Bypass Diodes | 3 |
| Packing Configuration (1) | 35pcs/carton, 770pcs/40hq |
| Packing Configuration (for USA) | 35pcs/carton, 630pcs/40hq |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68 |

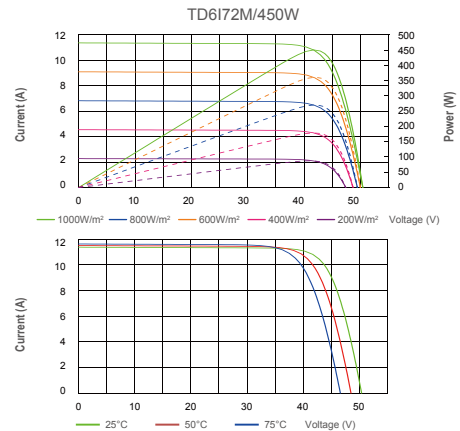
OPERATING CONDITIONS

| | |
|--|--|
| Maximum System Voltage | 1500V/DC(IEC) |
| Operating Temperature | -40°C ~ +85°C |
| Maximum Series Fuse | 25A |
| Static Loading | Snow Loading: 5400Pa/ Wind Loading: 2400Pa |
| Conductivity at Ground | ≤0.1Ω |
| Safety Class | II |
| Resistance | ≥100MΩ |
| Connector | T01/LJQ-3-CSY/MC4/MC4-EVO2 |
| Backside Output Ratio* | 70% ± 5% |
| *Under STC: Backside Output Ratio = P _{max(rear)} / P _{max(front)} | |

TEMPERATURE COEFFICIENT

| | |
|------------------------------|------------|
| Temperature Coefficient Pmax | -0.36%/°C |
| Temperature Coefficient Voc | -0.26%/°C |
| Temperature Coefficient Isc | +0.043%/°C |
| NMOT | 43±2°C |

I-V CURVE



TECHNICAL DRAWINGS

