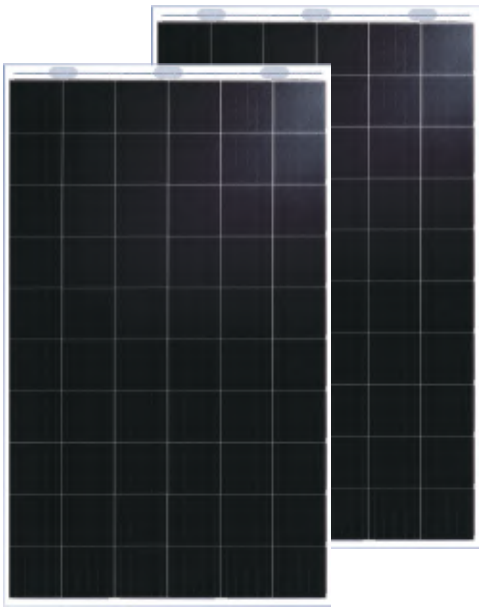
TALESUN

# BIPRO

TD6E60M **60-cell**

## 315 - 335W

bifacial dual glass mono perc



## KEY FEATURES

### Industry leading high yield

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

### Additional Power Generation Gain

30-year linear performance warranty,
more than 30% additional power gain

### ZERO PID (Potential Induced Degradation)

Bifacial double glass design, PID free

### Excellent low light performance

Excellent low light performance on cloudy days,
mornings and evenings

### 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 1703
- ISO 9001 : 2015 Quality Management System
- ISO 14001 : 2015 Environment Management System
- ISO 45001 : 2018 Occupational Health and Safety Management Systems

CEC Approved

TIS.1843-2553 TIS.2580-2555

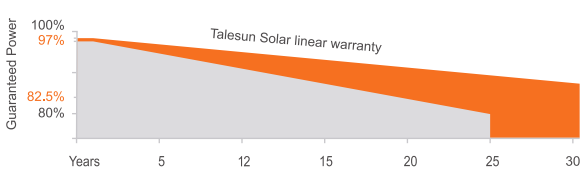
## PERFORMANCE WARRANTY

12 years Quality assurance

30 years Power output guarantee

Bifacial Dual Glass Mono Solar Module Linear Performance Warranty

Conventional Mono Solar Module Linear Performance Warranty




PowerGuard SPECIALTY INSURANCE SERVICES PICC 永诚保险 ALLTRUST INSURANCE

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Annual Module Capacity Globally : 8 GW
China : 7 GW
Thailand : 1 GW

Talesun Solar is one of the world's largest integrated clean energy providers, who develops, manufactures and delivers highly reliable and cost-effective solar modules and integrated PV energy solutions for every application and market, for homes, businesses and utility power plants. It was ranked as one of the top 10 module suppliers in 2018, and was also listed as global TIER1 module supplier by BNEF since 2015.

## ELECTRICAL PARAMETERS

### Performance at STC (Power Tolerance 0 - +3%)

| | | | | | |
|---|---|---|---|---|---|
| Maximum Power(Pmax/W) | 315 | 320 | 325 | 330 | 335 |
| Operating Voltage(Vmpp/V) | 33.2 | 33.5 | 33.8 | 34.2 | 34.6 |
| Operating Current(Impp/A) | 9.49 | 9.56 | 9.62 | 9.66 | 9.69 |
| Open-Circuit Voltage(Voc/V) | 39.9 | 40.1 | 40.3 | 40.5 | 40.7 |
| Short-Circuit Current(Isc/A) | 10.09 | 10.16 | 10.22 | 10.26 | 10.29 |
| Module Efficiency ηm(%) | 18.7 | 19.0 | 19.3 | 19.6 | 19.9 |

### Performance at NMOT

| | | | | | |
|---|---|---|---|---|---|
| Maximum Power(Pmax/W) | 236.1 | 239.8 | 243.3 | 247.0 | 250.3 |
| Operating Voltage(Vmpp/V) | 30.8 | 31.1 | 31.4 | 31.7 | 32 |
| Operating Current(Impp/A) | 7.65 | 7.71 | 7.76 | 7.79 | 7.82 |
| Open-Circuit Voltage(Voc/V) | 37.4 | 37.5 | 37.7 | 37.9 | 38.1 |
| Short-Circuit Current(Isc/A) | 8.14 | 8.19 | 8.24 | 8.27 | 8.3 |

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 (reference to 315W front)

| Pmax gain | Pmax/W | Vmpp/V | Impp/A | Voc/V | Isc/A |
|---|---|---|---|---|---|
| 5% | 330.75 | 33.8 | 9.7965 | 40.3 | 10.3215 |
| 10% | 346.5 | 33.8 | 10.263 | 40.3 | 10.813 |
| 15% | 362.25 | 33.8 | 10.7295 | 40.3 | 11.3045 |
| 20% | 378 | 33.8 | 11.196 | 40.3 | 11.796 |
| 25% | 393.75 | 33.8 | 11.6625 | 40.3 | 12.2875 |

## MECHANICAL SPECIFICATION

| | |
|---|---|
| Cell Type | Mono-Crystalline Silicon |
| Cell Dimensions | 158.75*158.75mm(6inches) |
| Cell Arrangement | 60(6*10) |
| Weight | 23.5kg(51.81lbs) |
| Module Dimensions | 1676*1006*6mm(65.98*39.61*0.24inches) |
| Cable Length | 300mm(11.81inches) |
| Cable Cross Section Size | 4mm²(0.006inches²) |
| Front Glass | 2.5mm High Transmission, Tempered Glass |
| No.of Bypass Diodes | 3/6 |
| Packing Configuration | 33pcs/Pallet,858pcs/40hq |
| Frame | Frameless |
| Junction Box | IP68 |

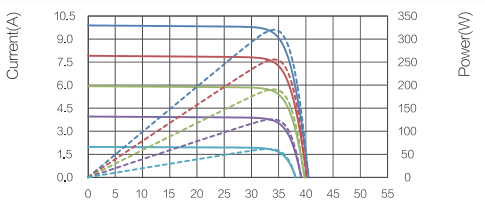
## OPERATING CONDITIONS

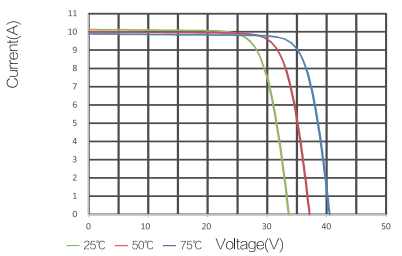
| | |
|---|---|
| Maximum System Voltage | 1500V/DC(IEC) |
| Operating Temp | -40°C-+85°C |
| Maximum Series Fuse | 20A |
| Static Loading | 3600Pa |
| Conductivity at Ground | ≤ 0.1Ω |
| Safety Class | Ⅱ |
| Resistance | ≥100MΩ |
| Connector | MC4 Compatible |
| Backside Output Ratio*<br>*Under STC: Backside Output Ratio = $P_{max(rear)}$ /$P_{max(front)}$ | >75% |

## TEMPERATURE COEFFICIENT

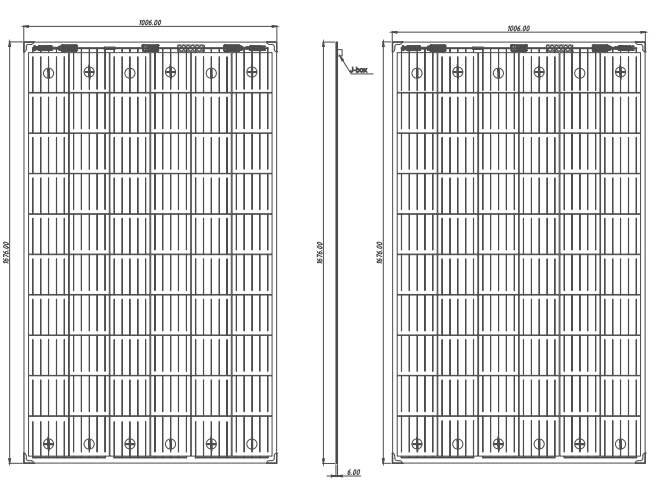
| | |
|---|---|
| Temperature Coefficient Pmax | -0.39%/°C |
| Temperature Coefficient Voc | -0.30%/°C |
| Temperature Coefficient Isc | +0.05%/°C |
| NMOT | 42±2°C |

## I-V CURVE




## TECHNICAL DRAWINGS







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