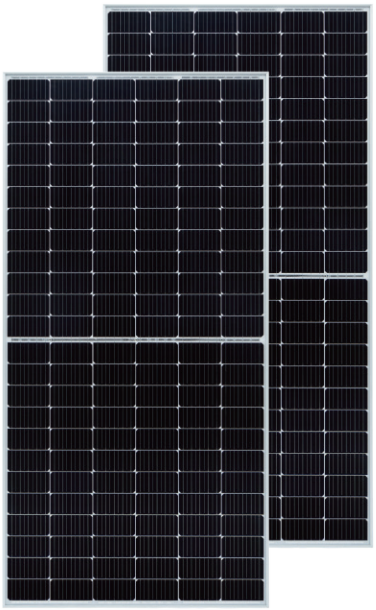
TALESUN

BIPRO

TD6I72M **144-cell**

430 - 450W

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 dopped 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

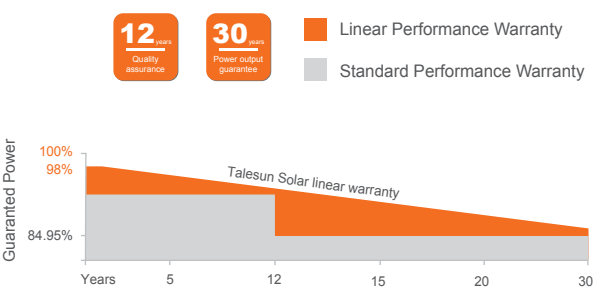
IP68 junction box

High waterproof level

SYSTEM & PRODUCT CERTIFICATES

- IEC 61215 / IEC 61730 / UL 1703 / 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



marketing.hq@talesun.com

Annual Module Capacity Globally: 10GW
China: 8GW
Thailand: 2GW

TALESUN

ELECTRICAL PARAMETERS

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

Maximum Power (Pmax/W)	430	435	440	445	450
Operating Voltage (Vmpp/V)	41.2	41.4	41.6	41.8	42.0
Operating Current (Impp/A)	10.44	10.51	10.58	10.65	10.72
Open-Circuit Voltage (Voc/V)	49.6	49.8	50.0	50.2	50.4
Short-Circuit Current (Isc/A)	11.09	11.16	11.22	11.29	11.36
Module Efficiency ηm(%)	19.3	19.5	19.7	19.9	20.2

Performance at NMOT

Maximum Power (Pmax/W)	319	323	327	330	334
Operating Voltage (Vmpp/V)	38.5	38.7	38.9	39.1	39.3
Operating Current (Impp/A)	8.30	8.36	8.41	8.47	8.52
Open-Circuit Voltage (Voc/V)	46.4	46.6	46.8	46.9	47.1
Short-Circuit Current (Isc/A)	8.94	9.00	9.04	9.10	9.16

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

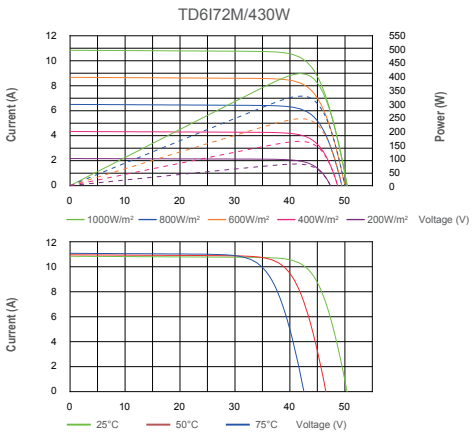
Electrical characteristics with different rear side power gain (refer to 440W front)

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	29kg (63.9lbs)
Module Dimensions	2132*1048*30mm (83.94*41.26*1.18inches)
Cable Length (Portrait)	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm² (0.006inches²)/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	3/6
Packing Configuration (1)	35pcs/carton, 700pcs/40hq
Packing Configuration (for USA)	35pcs/carton, 630pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

I-V CURVE



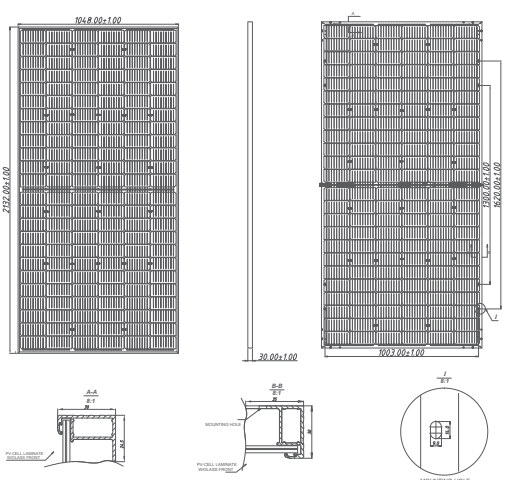
OPERATING CONDITIONS

Maximun System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C ~ +85°C
Maximun Series Fuse	20A
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* *Under STC: Backside Output Ratio = $P_{max(rear)}$ /$P_{max(front)}$	70% ± 5%

TEMPERATURE COEFFICIENT

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

TECHNICAL DRAWINGS



20200901EN The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, Suzhou Talesun Solar Technologies Co., Ltd. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

TALESUN