

# 3d Photovoltaic Panel MONO BI-FACIAL

The One & Only, invented by Wittig Solar in Bahrain

فيتيج سولار  
WITTIG SOLAR



## 1,430Wp

MAXIMUM POWER OUTPUT

## 0~+73W

POSITIVE POWER TOLERANCE

## 48.3%

MAXIMUM EFFICIENCY



### HALF LAND REQUIREMENT HALF INSTALLATION COSTS

3d PV Module vs. flat Module.  
Respectively Land Cost and  
installation costs cut by half.



### WORLD-RECORD EFFICIENCY HIGHEST YIELD EVER REALIZED<sup>1)</sup>

More than double yield / efficiency than  
traditional made flat-type panels.

<sup>1)</sup> Stand July 2023

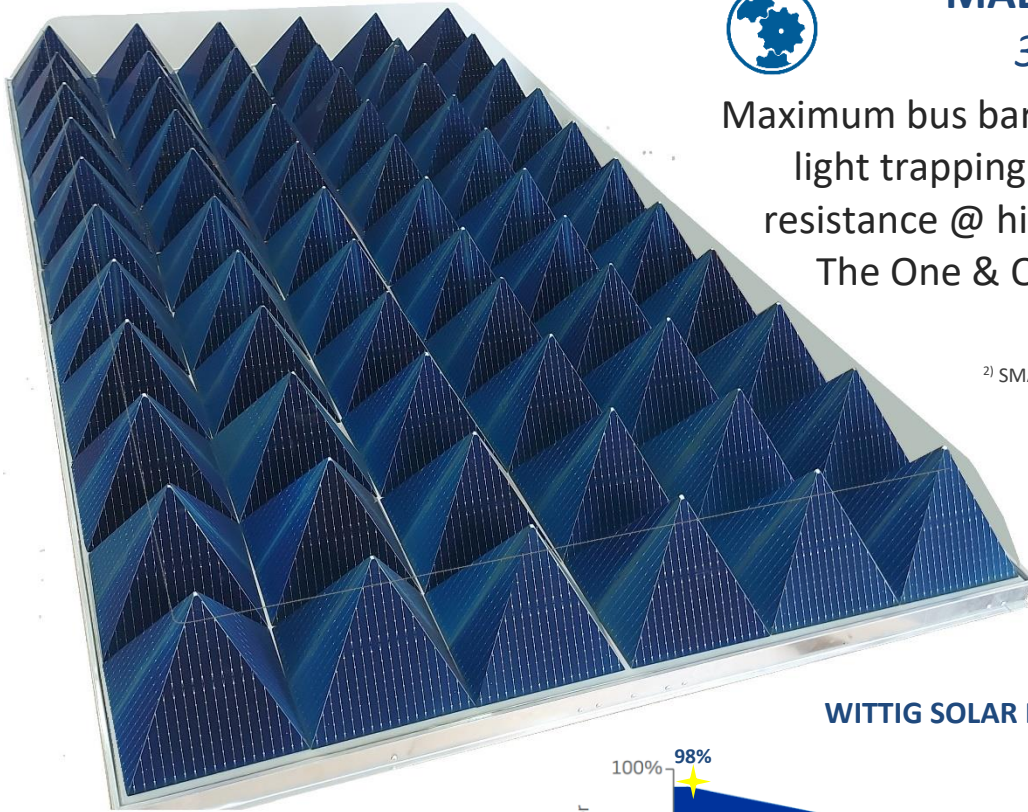


### MADE OF 210 PERC CELL 3D PYRAMID SHAPED

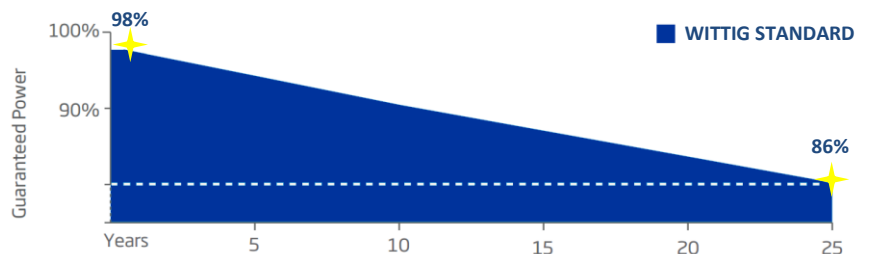
Maximum bus bar technology for highest  
light trapping effect, minimum series  
resistance @ high current harvesting<sup>2)</sup>.

The One & Only Pyramid shaped PV  
Module, patented.

<sup>2)</sup> SMA Inverter Sunny Highpower PEAK3 compatible



### WITTIG SOLAR PERFORMANCE GUARANTEES



German Wittig Product Inventions & Technologies, since 1989

Product and System Certification in process



IEC61215 / IEC61730 / IEC61701 / IEC62716

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

ISO45001: Health and Safety Management System

Model No. 3dSP-1430.01

Wittig Solar Company WLL

Kingdom of Bahrain

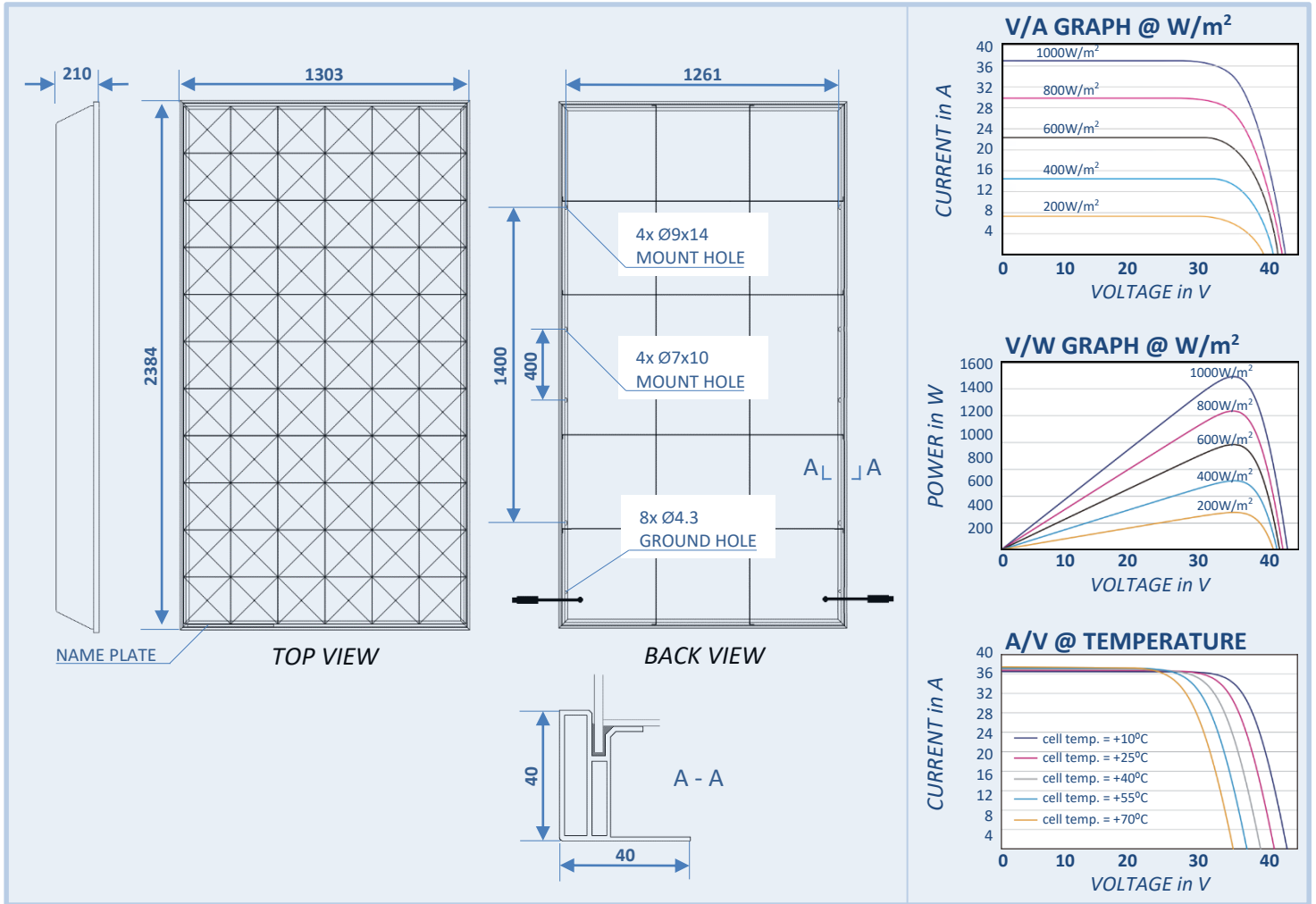
info@bahrain.wittig.it

http://bahrain.wittig.it

# 3d Photovoltaic Panel MONO BI-FACIAL

The Next Generation

## DIMENSIONS 3D PV MODULE in mm



### ELECTRICAL DATA (STC)

Peak Power Watts- $P_{MAX}$ (Wp) <sup>*)</sup>	1,430
Power Tolerance- $P_{MAX}$ (%)	0 ~ +5
Maximum Power Voltage- $V_{MPP}$ (V)	41.1
Maximum Power Current- $I_{MPP}$ (A)	34.79
Open Circuit Voltage- $V_{OC}$ (V)	47.3
Short Circuit Current- $I_{SC}$ (A)	36.5
Module Efficiency $\eta_m$ (%)	48.3

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5. \*)Measuring tolerance: ±3%.

### ELECTRICAL DATA (NOCT)

Maximum Power- $P_{MAX}$ (Wp) <sup>*)</sup>	1,076
Maximum Power Voltage- $V_{MPP}$ (V)	38.3
Maximum Power Current- $I_{MPP}$ (A)	28.11
Open Circuit Voltage- $V_{OC}$ (V)	44.6
Short Circuit Current- $I_{SC}$ (A)	29.41

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.')

### WARRANTY

10 year Product Workmanship Warranty  
25 year Power Warranty  
2% first year degradation  
0.48% Annual Power Attenuation

### PACKAGING CONFIGURATION

Modules per box	10 pieces
per 40' cube container	90 pieces (MQO)

### MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	132 cells
Module Dimensions	2384 × 1303 × 210 mm <sup>3</sup> (93.86×51.30×8.27 inches <sup>3</sup> )
Weight	39.3 kg (86.6 lbs.)
Glass	2.9 mm (0.11 inches), Ultra High Transmission Acrylic <sup>2)</sup>
Main Chamber	Vacuum, access valve supported
Back sheet	2.0 mm (0.08 inches), Ultra High Transmission Acrylic <sup>2)</sup>
Frame	40 mm (1.57 inches), 6063 Aluminum Alloy
Cables	Photovoltaic Technology Cable 8.0mm <sup>2</sup> (0.012 inches <sup>2</sup> ), Portrait: 350 mm (13.78 inches), Length can be customized
Connector	MC4 EVO2 / TS4 <sup>1)</sup>

<sup>1)</sup> Refer to regional datasheet for specified connector. <sup>2)</sup> 25 years warranty on full transmission

### TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of $P_{MAX}$	-0.34% / °C
Temperature Coefficient of $V_{OC}$	-0.25% / °C
Temperature Coefficient of $I_{SC}$	0.04% / °C

### MAXIMUM RATINGS

Operational Temperature	-40 ~ +90°C
Maximum System Voltage	1500V <sub>DC</sub> (IEC & UL)
Max. Series Fuse Rating	50A

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT. © 2023 Wittig Solar Co., WLL. All rights reserved. Preliminary Specifications in this datasheet, Stand August 2023, are subject to change without notice. Patented, designed and made in the Kingdom of Bahrain.