

## **VEGA SERIES™**

# UTILITY SCALE SOLAR MONO | BIFACIAL | PERC | PV MODULE

Power Range: 525W I 530W I 535W I 540W I 545W I 550W
Technology: PERC SE I Half cut cell I 10 Busbar I 144 cells
Design: Single Glass I Silver Frame I Transparent Back

Module Efficiency: 21.1%

Cell Efficiency: 22.5%~23.3% Power Tolerance: 0~+5W

System Voltage: 1000/1500 V DC

Module Size: 90.40 x 44.65 x 1.38 inch

Module Weight: 63.94 lb.

Module Code: BVM7612M-XXX-H-HC-BF

#### DESIGNED TO PERFORM AND BUILT TO LAST

Our PV modules are designed with better technology in mind, made from robust product components, under stringent quality control steps and high-tech manufacturing processes.

PERC, half-cut, multi-busbar, and large cell designs enables our PV modules to pack more power per module, capture more photons, produce more energy, and provide reliable, dependable system performance under different installations requirements, difficult weather, or environmental conditions. Whether you are EPC, installer, contractor, or project developer, we have the right and better PV module for your residential, commercial, industrial, and utility scale solar projects.



Monocrystalline technology



P-Type semiconductor



Passivated emitter and rear cell technology



Half cut cell



Multi-Busbar cell



Large wafer design



Beautiful aesthetic

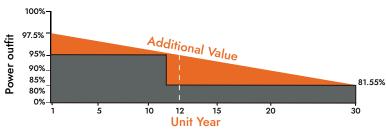


Robust product component

#### **WARRANTY**

30 - Year linear power warranty

12 - Year product warranty



Output Linear Warranty

Standard Warranty

- 1 (12) years product warranty
- 2 Out linear warranty with 2.5% degradation in the 1st year and less than 0.55% degradation each year from 2nd year to 30th year

#### **CERTIFICATES**

UL 61730 | IEC 61215 | IEC 61730 | CEC Listed | CE

ISO 9001 Quality Management System

ISO 14001 Environmental Management System

ISO 45001 Occupational Health and Safety Management System

\*Please contact with Boviet Solar representatives for full list of certificates according to local requirements and product type

#### **ELECTRICAL CHARACTERISTICS I STC**

Maximum Power (Pmax)	525W	530W	535W	540W	545W	550W
Maximum Power Current (Imp)	12.60A	12.66A	12.71A	12.76A	12.82A	12.88A
Maximum Power Voltage (Vmp)	41.74V	41.94V	42.17V	42.40V	42.58V	42.76V
Short Circuit Current (Isc)	13.37A	13.43A	13.48A	13.55A	13.72A	13.84A
Open Circuit Voltage (Voc)	49.52V	49.71V	49.80V	49.89V	49.98V	50.13V
Module Efficiency	20.2%	20.4%	20.5%	20.7%	20.9%	21.1%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W

STC: AM1.5 Irradiance 1000W/m², 25° C

#### **ELECTRICAL CHARACTERISTICS I NOCT**

Maximum Power (Pmax)	5 <b>25</b> W	530W	535W	540W	545W	550W
Maximum Power (Pmax)	395.10W	401.48W	405.27W	409.09W	412.75W	416.44W
Maximum Power Current (Imp)	10.22A	10.27A	10.31A	10.35A	10.40A	10.45A
Maximum Power Voltage (Vmp)	38.66V	39.10V	39.31V	39.53V	39.69V	39.86V
Short Circuit Current (Isc)	10.74A	10.79A	10.83A	10.89A	11.03A	11.12A
Open Circuit Voltage (Voc)	46.40V	46.57V	46.66V	46.74V	46.83V	46.97V

NOCT: AM 1.5 Irradiance 800W/m $^{2}$  , 20 $^{\circ}$  C, Wind speed 1m/s

#### MECHANICAL CHARACTERISTICS

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Solar Cell	Monocrystalline I PERC PV Cells 182mm Cell I Half-cut I 10 Busbar I 144 (6x24) pcs in series
Solar Modules	Bifacial I 90.40 x 44.65 x 1.38 inch. I Weight: 63.94 lb.
Module Glass	3.2 mm (0.13 inch) High transparency, low iron, AR-coated tempered glass
Module Frame	Frame 35 mm Ultra-strong anodized aluminum alloy frame
Module Junction Box	IP68 rated I 3 bypass diodes
Module Output Cable	4mm² (EU) I 12 AWG (US) 39.38 inch
Module Connector	Multi contact (MC4) compatible connectors
Module Encapsulant	POE
Module Backsheet	Transparent with grid, FFC/PET/FFC material 0.315mm thickness for transparent area, 0.335mm included grid layer.
Module Fire Type	Type 1 Fire rated

#### PACKING INFORMATION

Pieces per pallet:	31
Pallets per container (40HQ):	20
Pieces per container (40HQ):	620
Pallet Weight:	2142.89 lb.
Pallet Dimension:	91.37 x 44.69 x 49.49 inch

#### MAXIMUM RATING

Operating Temperature	-40°F~185°F
Maximum Series Fuse Rating	30A
lsc Temperature Coefficient	1000/1500V DC

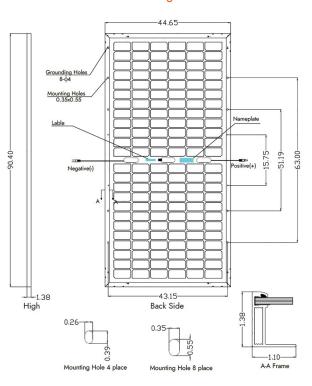
#### THERMAL CHARACTERISTICS

Pmax Temperature Coefficient	-0.35%/K
Voc Temperature Coefficient	-0.285%/K
Isc Temperature Coefficient	+0.05%/K
NOCT	113±35.6°F

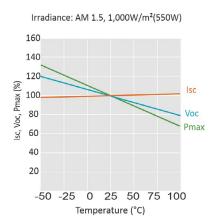
#### **BIFACIAL OUTPUT-BACKSIDE POWER GAIN**

10%	Pmax(W)	578	583	589	594	600	605
	Module efficiency (%)	22.18	22.39	22.60	22.81	23.03	23.24
20%	Pmax(W)	630	636	642	648	654	660
	Module efficiency (%)	24.20	24.43	24.66	24.89	25.12	25.35

#### PV Module: Mechanical Drawing



#### PV Module: IV Curve



### PV Module: IV Curve

