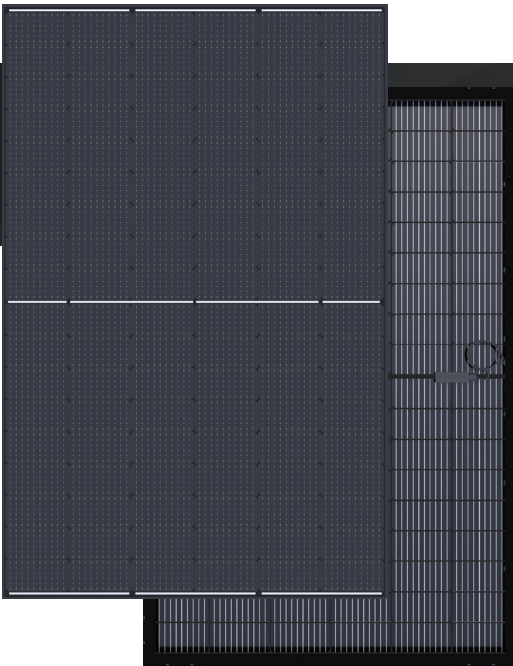


## VEGA SERIES™

### BIFACIAL | TRANSPARENT BACK | PV MODULE

### PERC Cell Technology | P-Type



<b>Power Range:</b>	395W   400W   405W   410W   415W
<b>Technology:</b>	PERC   Half-Cut Cell   10BB   108 Cells
<b>Design:</b>	Single Glass   Black Frame   Black Transparent Back
<b>Module Efficiency:</b>	21.25%
<b>Power Tolerance:</b>	0~+5W
<b>System Voltage:</b>	1000/1500 V DC
<b>Module Size:</b>	1722 x 1134 x 30 mm (67.80 x 44.65 x 1.18 inch)
<b>Module Weight:</b>	21.0 kg ±3% (46.3lb±3%)
<b>Module Code:</b>	BVM7609M-XXX-H-HC-BF-DG

## DESIGNED TO PERFORM AND BUILT TO LAST

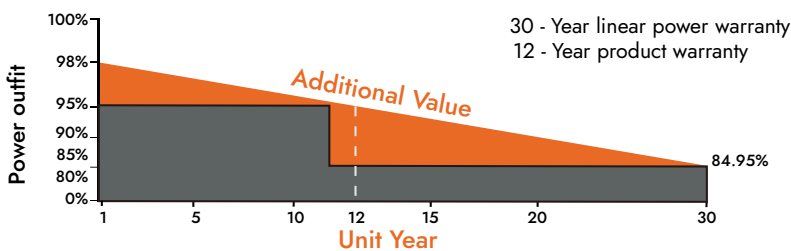
Our PV modules are designed with better technology in mind, made from robust product components, under stringent quality control steps and high-tech manufacturing processes.

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



- Output Linear Warranty
  - Standard Warranty
- 1 (12) years product warranty  
2 Out linear warranty with 2% degradation in the 1st year and less than 0.45% degradation each year from 2nd year to 30th year

**What are half-cut solar cells?** Half-cut solar cells are exactly what their name suggests – they are traditional silicon solar cells that have been cut in half using a laser cutter. Half-cut cells provide several benefits over traditional solar cells.

**More power:** When solar cells are halved, their current is also halved, so resistive losses are lowered, and the cells can produce a little more power as well as provides higher shade tolerance.

**Reliable:** Smaller cells experience reduced mechanical stresses, so there is a decreased opportunity for cracking. Half-cell modules have higher output ratings and are more reliable than traditional panels.

## CERTIFICATES

UL 61730 | IEC 61215 | IEC 61730      CE ISO 9001 Quality Management System  
ISO 14001 Environmental Management System      ISO 45001 Occupational Health and Safety Management System

\*Please contact with Boviet Solar representative for Full list of certificates according to local requirements and PV module product type.

## ELECTRICAL CHARACTERISTICS | STC

Maximum Power (Pmax)(W)	395W	400W	405W	410W	415W
Maximum Power Current (Imp)(A)	12.58	12.67	12.75	12.83	12.91
Maximum Power Voltage (Vmp)(V)	31.41	31.60	31.79	31.97	32.16
Short Circuit Current (Isc)(A)	13.38	13.47	13.56	13.65	13.74
Open Circuit Voltage (Voc)(V)	37.18	37.35	37.52	37.69	37.86
Module Efficiency	20.23%	20.48%	20.74%	21.00%	21.25%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W

STC: AM 1.5 Irradiance 1000W/m<sup>2</sup>, 25° C

## ELECTRICAL CHARACTERISTICS | NOCT

Maximum Power (Pmax)	395W	400W	405W	410W	415W
Maximum Power (Pmax)(w)	298.7	302.48	306.26	310.04	313.82
Maximum Power Current (Imp)(A)	10.20	10.28	10.34	10.41	10.47
Maximum Power Voltage (Vmp)(V)	29.28	29.46	29.63	29.80	29.98
Short Circuit Current (Isc)(A)	10.75	10.83	10.90	10.97	11.04
Open Circuit Voltage (Voc)(V)	34.83	34.99	35.15	35.31	35.47

NOCT: AM 1.5 Irradiance 800W/m<sup>2</sup>, 20° C, Wind speed 1m/s

## MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline I PERC PV Cells 182x91mm Cell I Half-cut I 10 Busbar I 108(6x18)pcs in series
Solar Modules	Bifacial I 67.80 x 44.65 x 1.38 inch I Weight: 46.3 lb±3%
Module Front Glass	3.2 mm (0.126 inch) High transparency, low iron, AR-Coated tempered glass
Module Frame	Frame 35 mm Anodized aluminum alloy frame
Module Junction Box	IP68 rated I 3 bypass diodes
Module Output Cable	4mm <sup>2</sup> I Length:(+)1000mm (39.38 in),(-)1000mm (39.38 in)
Module Connector	JM608
Module Encapsulant	POE
Module Back Glass	Black 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:	36 pcs
Pallets per container (40HQ):	26 pallets
Pieces per container (40HQ):	936 pcs
Pallet Weight:	1743.86 lb (801kg)
Pallet Dimension:	69.29 x 44.69 x 49.49 in (1760 x 1135 x 1257 mm)

## THERMAL CHARACTERISTICS

Pmax Temperature Coefficient	-0.35%/K
Voc Temperature Coefficient	-0.28%/K
Isc Temperature Coefficient	+0.05%/K
NOCT	113±35.6°F

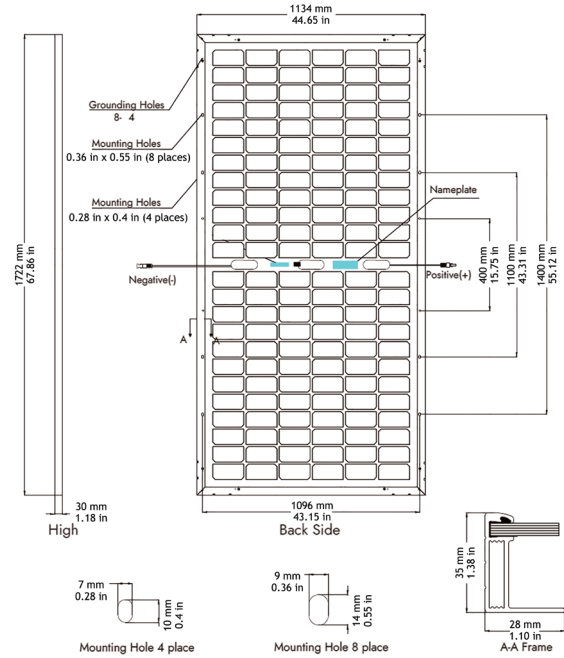
## MAXIMUM RATING

Operating Temperature	-40°F~185°F
Maximum Series Fuse Rating	30A
Maximum System Voltage	1000/1500V DC
Bifacial Ratio	70±10%

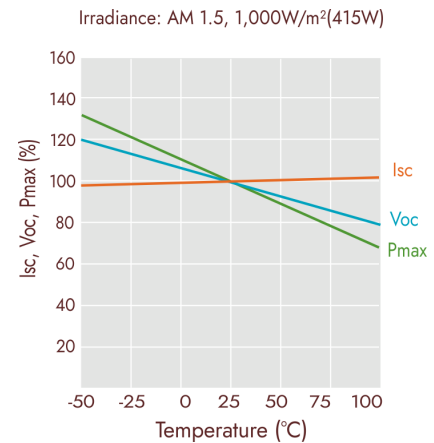
## BIFACIAL OUTPUT-BACKSIDE POWER GAIN

10%	Pmax(W)	434.5	440	445.5	451	456.5
	Module efficiency (%)	22.25	22.53	22.81	23.10	23.28
20%	Pmax(W)	474	480	486	492	498
	Module efficiency (%)	24.27	24.58	24.89	25.20	25.50

## PV Module: Mechanical Drawing



## PV Module: IV Curve



## PV Module: IV Curve

