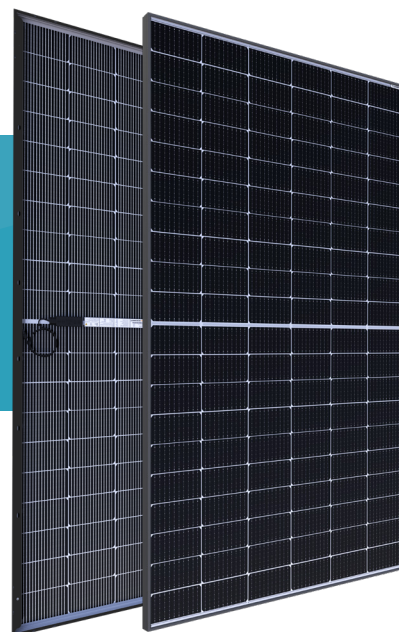


VEGA SERIES™

TOPCON Cell Technology

POWER OUTPUT RANGE
470Wp – 490Wp

MODULE CODE
BVM7610M-XXX-H-HC-BF



PV MODULE TECHNOLOGY
Mono-Bifacial | Single Glass

PV MODULE POWER RANGE
470W | 475W | 480W | 485W | 490W

PV MODULE EFFICIENCY
22.70% Max Module Efficiency
Power Tolerance 0~+5W

PV MODULE DESIGN
Black Frame | Transparent Back
Split Module Design

PRODUCT FEATURES + BENEFITS



Design to Perform

- High energy yield and faster ROI
- High efficiency up to 22.70%
- Improved incident angle modifier
- Improved low irradiance performance
- Lower temperature coefficient -0.30%/K



Build to Last

- Resistance to harsh environments
 - Wind loads up to 2400Pa
 - Snow loads up to 5400Pa
 - Hail impact size 45mm
- Lower impact from temperature efficiency behavior
 - Anti-LeTID performance
 - Anti-PID performance
 - Backed by 3rd party testing validation
- Multi-busbar, half-cut cells to enhance
 - Micro crack resistance
 - Impact of inter-row resistance
 - Improve current flow



Best Value

- TOPcon cell technology with 80±5% bifaciality
- Lower Balance of system cost (BOS)
- Reduced levelized cost of energy (LCOE)
- Faster return on investment (ROI)

PRODUCT WARRANTY

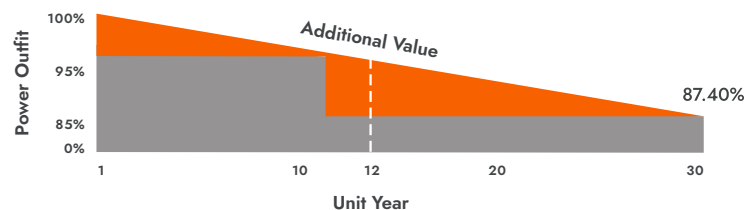
Warranty Terms

- 12 Year product warranty
- 30 Year linear product warranty

Power Degradation

- First year power degradation no more than 1%
- Subsequent annual power degradation no more than 0.4%

- Output Linear Warranty
- Standard Warranty



PRODUCT CERTIFICATIONS & TESTS

UL 61730 | IEC 61215 | IEC 61730 | CE Listed
IEC 62716, IEC 61701 Ammonia, Salt mist corrosion test
IEC TS 62804-1, IEC 60068-2-68PID test, Dust and Sand test
IEC 61730-2 (UL790) Fire Class C

Management System | Certificates

ISO 9001 | Quality management system
ISO 14001 | Environmental management system
ISO 45001 | Occupational health and safety management system

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

A RELIABLE, TRUSTED, LONG-TERM INDUSTRY PARTNER



Top 10 Global
PV Module
Manufacturer



PVEL PV Module
Reliability Scorecard
Top Performer



B&V Successful
Independent
Manufacturing Assessment



Supply chain
traceability
protocol



Environmental,
Social, & Governance
Program



Made in
Vietnam since
2013

ELECTRICAL CHARACTERISTICS | STC

Maximum Power (Pmax)	470W	475W	480W	485W	490W
Maximum Power Current (Imp)	13.41A	13.49A	13.56A	13.64A	13.72A
Maximum Power Voltage (Vmp)	35.07 V	35.24 V	35.41 V	35.58V	35.75V
Short Circuit Current (Isc)	14.12 A	14.20 A	14.28 A	14.36A	14.44A
Open Circuit Voltage (Voc)	41.97 V	42.16 A	42.35V	42.54V	42.73V
Module Efficiency	21.78%	22.01%	22.24%	22.47%	22.70%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W	0~+5W

STC: AM1.5 Irradiance 1000W/m², 25° C

ELECTRICAL CHARACTERISTICS | NOCT

Maximum Power (Pmax)	470W	475W	480W	485W	490W
Maximum Power (Pmax)	370W	374W	378W	382W	386W
Maximum Power Current (Imp)	11.32A	11.39A	11.48A	11.54A	11.60A
Maximum Power Voltage (Vmp)	32.70V	32.85V	33.01V	33.17V	33.33V
Short Circuit Current (Isc)	10.91A	11.99A	12.05A	12.13A	12.20A
Open Circuit Voltage (Voc)	39.32V	39.50V	39.68V	39.86V	40.03V

NOCT: AM 1.5 Irradiance 800W/m², 20° C, Wind speed 1m/s

MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline I TOPCon I 182mm Cell I 16 Busbar 120 cell I (6x20) pieces in series
Solar Modules	Bifacial I Black Frame I Transparent Back Sheet Dimensions: 75.12 x 44.65 x 1.19 inch I 1903 x 1134 x 30 mm Weight: 50.71 lb. I 23 kg
Module Front Glass	Single glass I 3.2 mm I 0.13 inch Tempered Glass I AR Coated
Module Frame	Black Frame I 30 mm I 1.19 inch Aluminum Alloy Frame I Anodized I Ultra Strong
Module Junction Box	Model: JMTHY IP68 rated I 3 bypass diodes I Split junction box design
Module Output Cable	Model: IMTHY I 1000 mm I 39.38 inch
Module Connector	JM608
Module Back Glass	Transparent Back Sheet with grid tempered glass
Module Fire Type	Type 1 Fire rated

PACKING INFORMATION

Pieces per pallet:	36 PCS
Pallets per container (40HQ):	24 Pallets
Pieces per container (40HQ):	864 PCS
Pallet Weight:	878 kg (1935.6 lb.)
Pallet Dimension:	75.91 x 44.69 x 49.49 Inch (1928 x 1135 x 1257 mm)

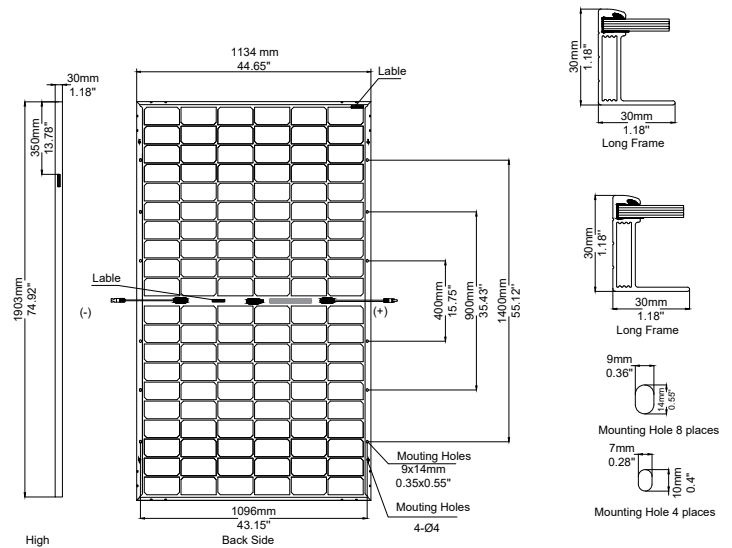
THERMAL CHARACTERISTICS

THERMAL CHARACTERISTICS		MAXIMUM RATING	
Pmax Temperature Coefficient	-0.30%/K	Operating Temperature	-40°F~185°F
Voc Temperature Coefficient	-0.25%/K	Maximum Series Fuse Rating	30A
Isc Temperature Coefficient	+0.046%/K	Maximum System Voltage	1500V DC
NOCT	113±35.6°F	Bifacial Ratio	80±5%

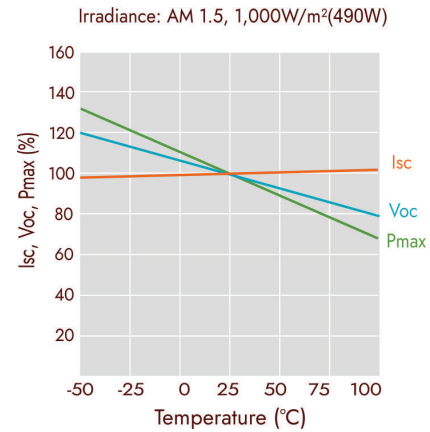
BIFACIAL OUTPUT-BACKSIDE POWER GAIN

10% Pmax(W)	517W	522.5W	528W	533.5W	539W
Module efficiency (%)	23.96	24.21	24.47	24.72	24.98
20% Pmax(W)	564W	570W	576W	582W	588W
Module efficiency (%)	26.14	26.41	26.69	26.97	27.25

PV Module: Mechanical Drawing



PV Module: IV Curve



PV Module: IV Curve

