



440-460w

Bifacial Twinplus Module Series

HIGH EFFICIENCY MONO-PERC BM4-9B-G

Bloomberg
NEW ENERGY FINANCE

Tier1



Extraordinary Product Performance

- Up to 25% additional power yield benefited from bifacial technology
- Lower power loss in cell connection and under shading conditions
- Competitive high-temperature performance with ameliorated temperature coefficient
- Higher power generation with multi-busbar and half-cut technology

Higher Quality Reliability

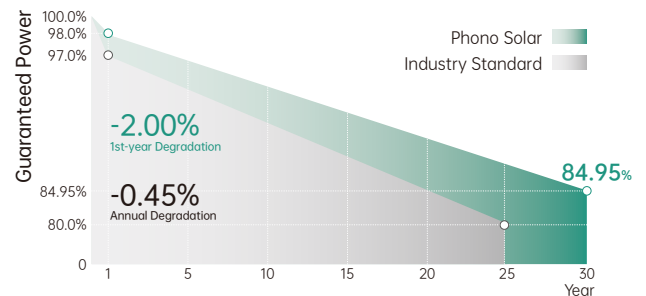
- Optimized electrical design lowers hot spot risk and operating current
- Corrosion resistance guarantees enhanced reliability in harsh environments
- Minimized Risk of microcrack and snail trail

Easy Installation

- Framed design improves mounting and racking method compatibility
- Safer and easier handling during transportation and installation

PID Resistant

- Encapsulation with POE and dual glass contributes to PID-free characteristic



12-year
Product Warranty

30-year
Linear Performance Warranty

MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001
2015 / Quality management system

ISO 14001
2015 / Standards for environmental management system

ISO 45001
2018 / International standards for occupational health & safety

Electrical Typical Values

Model	PS440M5GF-24/TH		PS445M5GF-24/TH		PS450M5GF-24/TH		PS455M5GF-24/TH		PS460M5GF-24/TH	
	1000V	1500V	PS440M5GFH-24/TH	PS445M5GFH-24/TH	PS450M5GFH-24/TH	PS455M5GFH-24/TH	PS460M5GFH-24/TH			
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (Pmpp)	440	327	445	331	450	335	455	339	460	342
Rated Current (Imp)	10.60	8.56	10.70	8.65	10.80	8.73	10.90	8.81	11.00	8.89
Rated Voltage (Vmpp)	41.51	38.22	41.59	38.29	41.67	38.37	41.75	38.44	41.82	38.51
Short Circuit Current (Isc)	11.24	9.08	11.30	9.13	11.36	9.18	11.42	9.23	11.48	9.28
Open Circuit Voltage (Voc)	49.51	46.74	49.57	46.79	49.63	46.85	49.69	46.91	49.75	46.96
Module Efficiency (%)	20.24		20.47		20.70		20.93		21.16	

STC(Standard Testing Conditions): Irradiance 1000W/m², AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m², Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

Electrical Characteristics With Different Power Bin

5%	Maximum Power (W)	455	461	466	471	476
	Module Efficiency (%)	20.95	21.19	21.43	21.67	21.90
15%	Maximum Power (W)	486	492	497	503	508
	Module Efficiency (%)	22.37	22.62	22.88	23.13	23.39
25%	Maximum Power (W)	517	523	529	535	541
	Module Efficiency (%)	23.79	24.06	24.33	24.60	24.87

Mechanical Characteristics

Cell Type	Monocrystalline 166mm x 83mm
Dimension (L x W x H)	Length: 2094mm (82.44 inch)
	Width: 1038mm (40.87 inch)
	Height: 30mm (1.18 inch)
Weight	27.0kg (59.52 lbs)
Glass	2.0mm/2.0mm toughened glass
Frame	Anodized Aluminium Alloy
Cable (Including Connector)	4mm ² (IEC), (+): 450mm,(-): 250mm or Customized Length
Junction Box	IP 68 Rated

Temperature Ratings

Voltage Temperature Coefficient	-0.28%/°C
Current Temperature Coefficient	+0.05%/°C
Power Temperature Coefficient	-0.35%/°C
Tolerance	0~+5w
NOCT	45±2°C
Bifaciality	70±5%

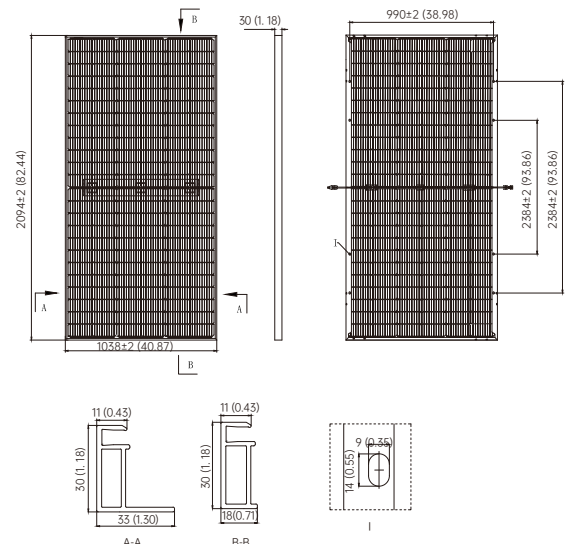
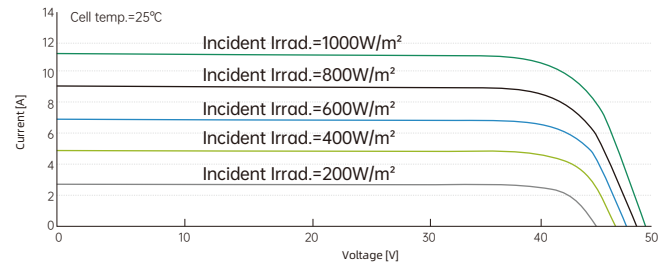
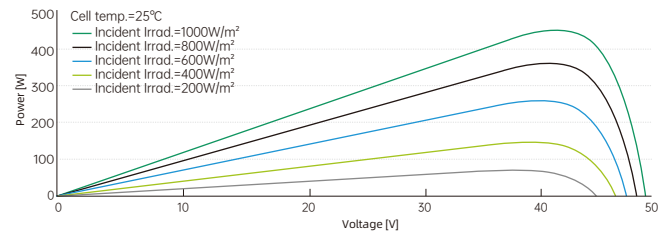
Absolute Maximum Rating

Operating Temperature	From -40 to + 85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	25A
PV Module Classification	II
Fire Rating (IEC61730)	C
Maximum System Voltage	DC 1000V/1500V

Packing Configuration

Container	20' HQ	40' HQ
Pieces/Container	290	792

Electrical Characteristics



Note:mm (inch)