Phono Solar

BIFACIAL TWINPLUS MODULE SERIES

HIGH EFFICIENCY MONO-PERC BM5-9B-G

435-455W

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

HIGH QUALITY RELIABILITY

- Optimized electrical design lowers hot spot risk and operating current
- Corrosion resistance quarantees 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

MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental management system

OHSAS 18001:2007 / International standards for occupational health & safety

IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules-guidelines for

increased confidence in PV module design qualification and type approval













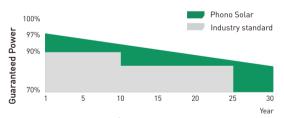












12-year Product Warranty 30-year Linear Performance Warranty







ELECTRICAL TYPICAL VALUES										
Model	PS435M5GF-24/TH PS435M5GFH-24/TH		PS440M5GF-24/TH PS440M5GFH-24/TH		PS445M5GF-24/TH PS445M5GFH-24/TH		PS450M5GF-24/TH PS450M5GFH-24/TH		PS455M5GF-24/TH PS455M5GFH-24/TH	
Testing Condition	STC	NOCT								
Rated Power (Pmpp)	435	320	440	323	445	327	450	331	455	344
Rated Current (Impp)	10.55	8.44	10.62	8.50	10.69	8.55	10.76	8.61	10.83	8.66
Rated Voltage (Vmpp)	41.24	37.91	41.44	38.00	41.63	38.25	41.83	38.44	42.02	38.57
Short Circuit Current (Isc)	11.02	8.88	11.08	8.93	11.14	8.98	11.20	9.03	11.26	9.08
Open Circuit Voltage (Voc)	49.59	45.87	49.79	46.06	49.99	46.24	50.20	46.44	50.40	46.62
Module Efficency (%)	19	.47	19.	.69	19.	.92	20.	.14	20.	36

STC(Standard Testing Conditions):Irrandance 1000W/m², AM 1.5G, Cell Temerature 25m²

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

BIFACIAL ELECTRICAL VALUES						
5% N	Maximum Power (W)	450	455	460	465	470
N	Module Efficiency (%)	20.14	20.36	20.59	20.81	21.04
15% N	Maximum Power (W)	480	485	490	495	500
N	Module Efficiency (%)	21.48	21.71	21.93	22.15	22.38
25% N	Maximum Power (W)	510	515	520	525	530
N	Module Efficiency (%)	22.83	23.05	23.27	23.50	23.72

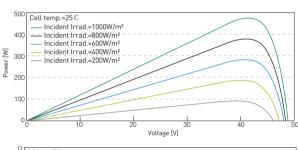
MECHANICAL CHARACTERISTICS Cell Type Monocrystalline 166 x 83mm Length: 2132mm (83.94 inch) Dimension (L×W×H) Width: 1048mm (41.26 inch) Height: 30mm (1.18 inch) Weight 29.5kg (65.04 lbs) Front Glass 2.0/2.0mm Frame Anodized Aluminium Alloy 4mm² (IEC) , Length:350mm (vertical) Cable 1250mm (horizontal) or Customized Length IP 68 Rated **Junction Box**

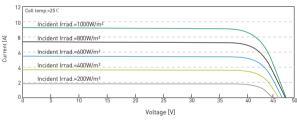
TEMPERATURE RATINGS		
Voltage Temperature Coefficient	-0.31%/°C	
Current Temperature Coefficient	+0.048%/°C	
Power Temperature Coefficient	-0.38%/°C	
Tolerance	0~+5w	
NOCT	43±2°C	

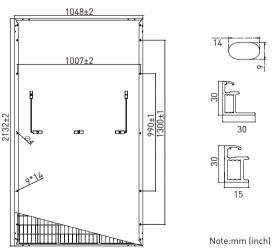
ABSOLUTE MAXIMUM RATING	
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	20A
IEC Application Class (IEC61730)	А
Maximum System Voltage	DC 1500V (IEC)

PACKING CONFIGURATION		
Container	20' GP	40' HQ
Pieces/Container	150	660

ELECTRICAL CHARACTERISTICS









PHONO SOLAR TECHNOLOGY CO.,LTD reserves the right to make necessary adjustments to the information described herein at any time without further notice. The specifications and certificates contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Please be sure to use the most recent version of data.