TWINPLUS MODULE SERIES

HIGH EFFICIENCY MONO-PERC M4-9B-R

400-420W



- Competitive high-temperature performance with ameliorated temperature coefficient
- Minimized power loss in cell connection
- Better performance under shading effect
- Decreased nominal operating cell temperature to 45 ± 2°C
- Higher power generation with multi-busbar and half-cut technology

TRUSTWORTHY QUALITY AND RELIABILITY

- Guaranteed 0~+5W positive tolerance secures reliable power output
- 5400Pa maximum snow load, 2400Pa maximum wind load
- Optimized electrical design lowers hot spot risk and operating current

PID RESISTANT

 Industry-leading cell processing technology and electrical design ensure solid PID resistance

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













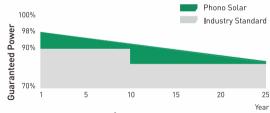












12-year Product Warranty 25-year Linear Performance Warranty





ELECTRICAL TYPICAL VALUES											
Model	1000V	PS400M4-22/WH		PS405M4-22/WH		PS410M4-22/WH		PS415M4-22/WH		PS420M4-22/WH	
	1500V	PS400M4H-22/WH		PS405M4H-22/WH		PS410M4H-22/WH		PS415M4H-22/WH		PS420M4H-22/WH	
Testing Condition		STC	NOCT								
Rated Power (Pmpp)		400	300	405	304	410	307	415	311	420	315
Rated Current (Impp)		10.51	8.48	10.58	8.54	10.65	8.60	10.72	8.65	10.79	8.71
Rated Voltage (Vmpp)		38.06	35.34	38.28	35.55	38.50	35.75	38.72	35.95	38.93	36.15
Short Circuit Current (Isc)		11.01	8.89	11.12	8.98	11.23	9.06	11.34	9.15	11.45	9.24
Open Circuit Voltage (Voc)		45.25	42.97	45.36	43.07	45.47	43.18	45.58	43.28	45.69	43.39
Module Efficiency (%)		19.98		20.23		20.48		20.73		20.98	

 $STC(Standard\ Testing\ Conditions): Irradiance\ 1000W/m^2,\ AM\ 1.5,\ Cell\ Temperature\ 25^{\circ}C$

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

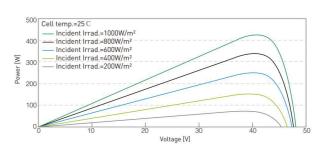
MECHANICAL CHARACTERISTICS				
Cell Type	Monocrystalline 166mm x 83mm			
	Length: 1925mm (75.79 inch)			
Dimension (L× W × H)	Width: 1040mm (40.94 inch) Height: 30mm (1.18 inch)			
Weight	22.5.0kg (49.60lbs)			
Front Glass	3.2mm Toughened Glass			
Frame	Anodized Aluminium Alloy			
Cable (Including Connector)	4mm² (IEC) (+):450mm,(-):250mm or Customized Length			
Junction Box	IP 68 Rated			

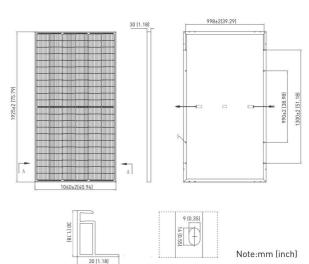
TEMPERATURE RATINGS		
Voltage Temperature Coefficient	-0.28%/'C	
Current Temperature Coefficient	+0.05%/'C	
Power Temperature Coefficient	-0.35%/'C	
Tolerance	0~+5w	
NOCT	45+2°C	

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
PV Module Classification	II
Fire Rating (IEC 61730)	С
Maximum System Voltage	DC 1500V/1000V

PACKING CONFIGURATION				
Container	20' GP	40' HQ		
Pieces/Container	280	864		

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.