

TWINPLUS MODULE SERIES

HIGH EFFICIENCY MONO-PERC M4-9B-R

435-455W



OUTSTANDING PRODUCT PERFORMANCE

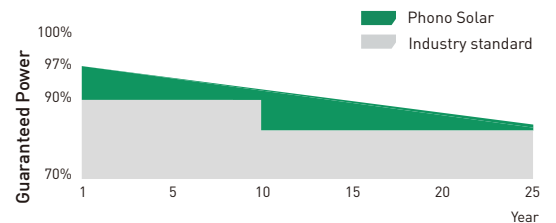
- Competitive high-temperature performance with ameliorated temperature coefficient
- Minimized power loss in cell connection
- Better performance under shading effect
- Decreased nominal operating cell temperature at $43 \pm 2^{\circ}\text{C}$
- Higher power generation with multi-busbar and half-cut 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

- Optimized cell processing technology and electrical design ensures solid PID resistanc



12-year Product Warranty | 25-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

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



Bloomberg Tier1
NEW ENERGY FINANCE



ELECTRICAL TYPICAL VALUES

Model	PS435M4-24/TH		PS440M4-24/TH		PS445M4-24/TH		PS450M4-24/TH		PS455M4-24/TH	
	PS435M4H-24/TH	PS440M4H-24/TH	PS440M4H-24/TH	PS445M4H-24/TH	PS445M4H-24/TH	PS450M4H-24/TH	PS450M4H-24/TH	PS455M4H-24/TH	PS455M4H-24/TH	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (Pmpp)	435	320	440	323	445	323	450	331	455	334
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 Efficiency (%)	19.69		19.92		20.14		20.37		20.60	

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

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 166 x 83mm
Dimension (L× W × H)	Length: 2108mm (83.00 inch)
	Width: 1048mm (41.26 inch)
	Height: 40mm (1.57 inch)
Weight	24.3kg (44.09 lbs)
Front Glass	3.2mm Toughened Glass
Frame	Anodized Aluminium Alloy
Cable	4mm ² (IEC) , Length:300mm (vertical) 1250mm (horizontal) or Customized Length
Junction Box	IP 68 Rated

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)	A
Maximum System Voltage	DC 1500V (IEC)

PACKING CONFIGURATION

Container	40' HQ
Pieces/Container	540

ELECTRICAL CHARACTERISTICS

