

TWINPLUS MODULE SERIES

HIGH EFFICIENCY MONO-PERC M4-9B-R

435-455W



OUTSTANDING PRODUCT PERFORMANCE

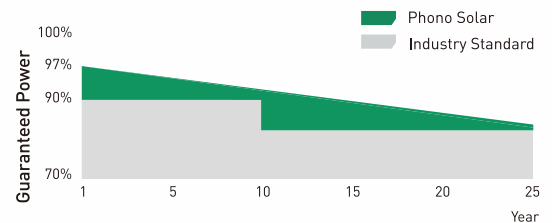
- Competitive high-temperature performance with ameliorated temperature coefficient
- Minimized power loss in cell connection
- Better performance under shading effect
- Decreased nominal operating cell temperature to $43 \pm 2^{\circ}\text{C}$
- Higher power generation with multi-busbar and half-cut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

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



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	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 (P _{mpp})	435	322	440	325	445	329	450	333	455	336
Rated Current (I _{mpp})	10.66	8.61	10.73	8.67	10.80	8.73	10.87	8.78	10.94	8.84
Rated Voltage (V _{mpp})	40.81	37.33	41.01	37.51	41.21	37.70	41.40	37.87	41.60	38.05
Short Circuit Current (I _{sc})	11.13	8.99	11.21	9.06	11.29	9.12	11.38	9.20	11.47	9.27
Open Circuit Voltage (V _{oc})	48.85	44.69	48.98	44.81	49.11	44.93	49.24	45.04	49.37	45.16
Module Efficiency (%)	19.89		20.12		20.35		20.58		20.80	

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

MECHANICAL CHARACTERISTICS

Cell Type	Monocrystalline 166mm x 83mm
Dimension (L× W × H)	Length: 2103mm (82.79 inch)
	Width: 1040mm (40.94 inch)
	Height: 35mm (1.38 inch)
Weight	25.0kg (55.12 lbs)
Front Glass	3.2mm Toughened Glass
Frame	Anodized Aluminium Alloy
Cable	4mm ² (IEC), Length:350mm (vertical) 1250mm (horizontal) or Customized Length
Junction Box	IP 68 Rated

TEMPERATURE RATINGS

Voltage Temperature Coefficient	-0.30%/°C
Current Temperature Coefficient	+0.05%/°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
PV Module Classification	II
Fire Rating (IEC 61730)	C
Module Fire Performance(UL 61730)	Type 4
Maximum System Voltage	DC 1500V/1000V

PACKING CONFIGURATION

Container	20' GP	40' HQ
Pieces/Container	255	682

ELECTRICAL CHARACTERISTICS

