

# TWINPLUS MODULE SERIES

## HIGH EFFICIENCY MONO-PERC M4-9B-R

# 435-455W



### OUTSTANDING PRODUCT PERFORMANCE

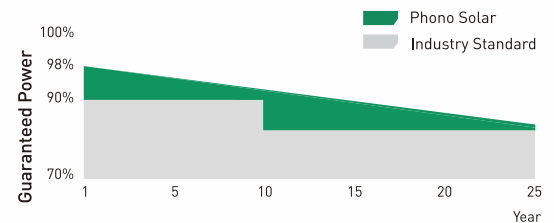
- Competitive high-temperature performance with ameliorated temperature coefficient
- Minimized power loss in cell connection
- Better performance under shading effect
- Decreased nominal operating cell temperature to  $43 \pm 2^{\circ}\text{C}$
- Higher power generation with multi-busbar and half-cut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



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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 <sub>mpp</sub> )	435	326	440	330	445	334	450	337	455	341
Rated Current (I <sub>mpp</sub> )	10.66	8.60	10.73	8.66	10.80	8.72	10.87	8.77	10.94	8.83
Rated Voltage (V <sub>mpp</sub> )	40.81	37.89	41.01	38.08	41.21	38.26	41.40	38.44	41.60	38.62
Short Circuit Current (I <sub>sc</sub> )	11.13	8.98	11.21	9.05	11.29	9.11	11.38	9.19	11.47	9.26
Open Circuit Voltage (V <sub>oc</sub> )	48.85	46.39	48.98	46.51	49.11	46.63	49.24	46.76	49.37	46.88
Module Efficiency (%)	19.89		20.12		20.35		20.58		20.80	

STC(Standard Testing Conditions):Irradiance 1000W/m<sup>2</sup>, AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m<sup>2</sup>, 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 (82.80 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 (Including Connector)	4mm <sup>2</sup> (IEC), (+):450mm,(-):250mm or Customized Length <small>*The requested cable length must be specified before the offer.</small>
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	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
Maximum System Voltage	DC 1500V/1000V

## PACKING CONFIGURATION

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

## ELECTRICAL CHARACTERISTICS

