

# MEGA SERIES 430-450W BIFACIAL SOLAR PANEL

MODEL: RS-M430BF / RS-M450BF

**22.8%**

Maximum Efficiency

**450W**

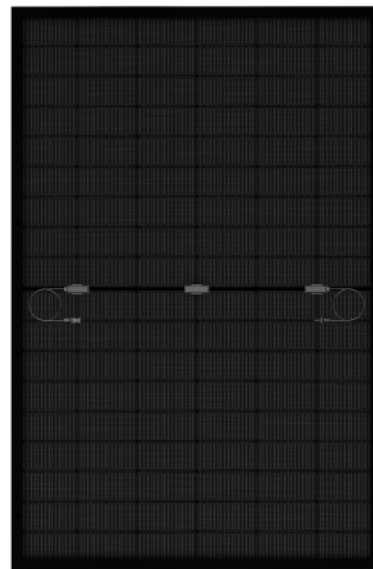
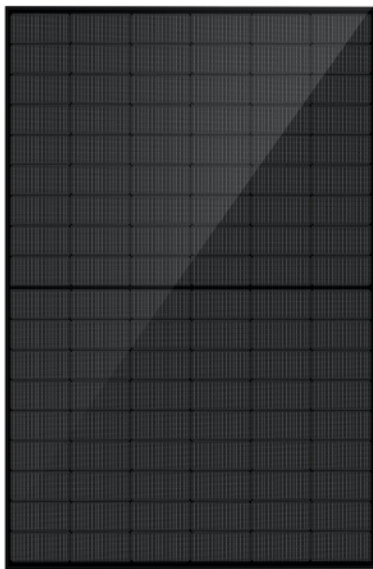
Maximum Power Output

**0~+5W**

Positive Power Tolerance

**IP68**

Waterproof Rate



## FEATURES

### High-Efficiency N-TOPCon Technology

16 busbar solar cell enhances light absorption, achieving 22.79% efficiency  
108 cell monocrystalline module delivers a 450W maximum power output.  
Zero LID (Light-Induced Degradation): 1% first-year degradation for stable long-term output  
Low-Light Optimization: Generates power even on cloudy/foggy days.

### Premium Durability & Warranty

12-year product warranty + 30-year linear power output guarantee ( $\leq 0.4\%$  annual degradation)  
IP68 Junction Box & Anti-Reflective Glass: Weatherproof design for harsh environments.  
Bifacial Energy Design: Up to 25% rear-side power gain (depending on installation).  
1500V System Voltage: Reduces BOS costs for utility-scale projects.

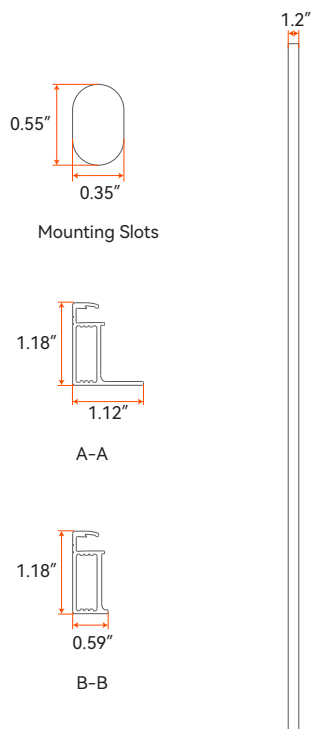
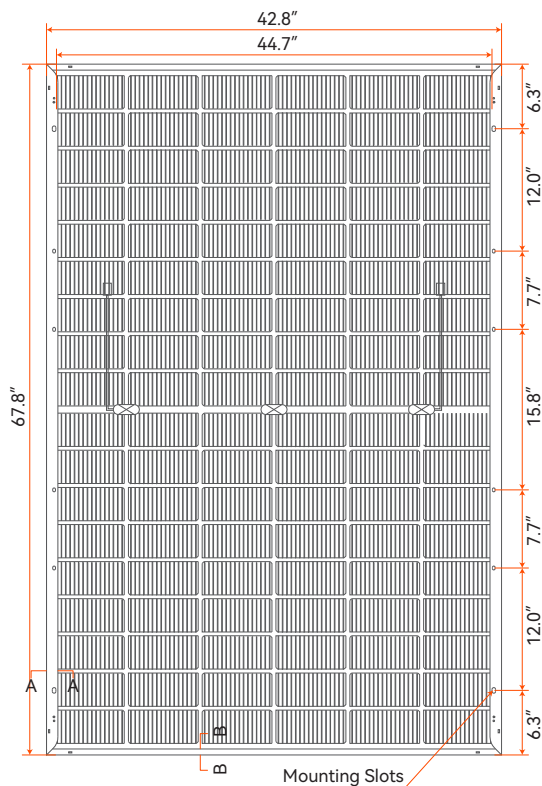
### Smart Structural Design

Compact Dimensions: 67.8×44.6×1.18 in – Optimized for high energy density per area  
Lightweight Yet Strong: 50.9 lb with anodized aluminum frame  
Certified Wind/Snow Load: 5400Pa (front) / 2400Pa (rear)  
MC4-Compatible: Easy integration with customizable cable lengths

### Reliable Temperature Performance

Low Temp Coefficient ( $-0.30\%/^{\circ}\text{C}$ ): Minimal power loss in high-heat conditions.  
Wide Operating Range ( $-40^{\circ}\text{F}$  to  $+185^{\circ}\text{F}$ ): Stable output in extreme climates.

## DIMENSIONS



## ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)	430 W	450 W
Power Output Tolerance-PMAX (W)	0~+5 W	0~+5 W
Maximum Power Voltage-VMPP (V)	31.9 V	32.8 V
Maximum Power Current-IMPP (A)	13.5 A	13.7 A
Open Circuit Voltage-VOC (V)	37.4 V	38.1 V
Short Circuit Current-ISC (A)	14.7 A	15.0 A
Maximum System Voltage	1500 VDC	1500 VDC
Maximum Series Fuse Rating	30 A	30 A
Module Efficiency $\eta_m$ (%)	22.0 %	22.8 %

STC: Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C, Air Mass AM = 1.5

## MECHANICAL DATA

Solar Cells	Monocrystalline 7.2 × 3.6 in (182 × 91 mm)
Module Dimensions	67.8 × 44.7 × 1.2 in (1722 × 1134 × 30 mm)
Cell Orientation	108 cells (6 × 9 × 2)
Weight	45.4 lb (20.6 kg)
Front Glass	2.0 mm, highly transparent tempered glass with anti-reflective coating
Connector	Solar Connectors
Frame	Anodized Aluminum Alloy / Polyurethane Composite Frame
Junction Box	IP 68 rated
Cables	4 mm <sup>2</sup> , 47.2 in (1200 mm)
Diode Quantity	3 pcs
Load Resistance	5400 Pa (front) / 2400 Pa (rear)

## TEMPERATURE RATINGS

Nominal Module Operating Temperature (NMOT)	45°C ± 2°C
Temperature Coefficient of PMAX	-0.30%/°C
Temperature Coefficient of VOC	-0.25%/°C
Temperature Coefficient of ISC	0.043%/°C

## CURVE CHARACTERISTICS

