

275 W – 285 W Poly-crystalline Solar Module



Premium MB Series

- 12 Bus-Bar grid pattern technology: reduce 3% of cell shading area
- Beautiful appearance, ideal for applications that require architectural aesthetics

Enhanced Reliability and Power Output

- Enhanced module efficiency up to 17.4%
- Higher power output with lower LCOE
- Lower Rs
- Concentration effect of round photovoltaic solder trip
- Enhanced anti-micro-cracking performance with balanced interior stress
- Significantly lowers the risk of hot spot by lowering module temperature in shading

Robust Design

- Strong anodized aluminum alloy frame
- Certified by TÜV to withstand up to 2400 Pa wind load and up to 5400 Pa snow load
- Easy installation and minimal maintenance with compatibility to industry standard inverters and mounting systems

Mechanical Characteristics

Cell type	Poly-crystalline
Cell Dimensions	156.75 × 156.75 mm, multi-busbar
Cell Arrangement	60 (6 × 10)
Weight	18.5 kg
Module Dimensions	1650 × 992 × 35 mm (also available: 1650 × 992 × 30 mm)
Glass	3.2 mm, high transmission, tempered
Connector	MC4 compatible
Cable Length	900 mm
Cable Cross-section Size	4 mm ²
No. of Bypass Diodes	3/6

Certificates



Warranty

10 Years: Manufacturing Warranty

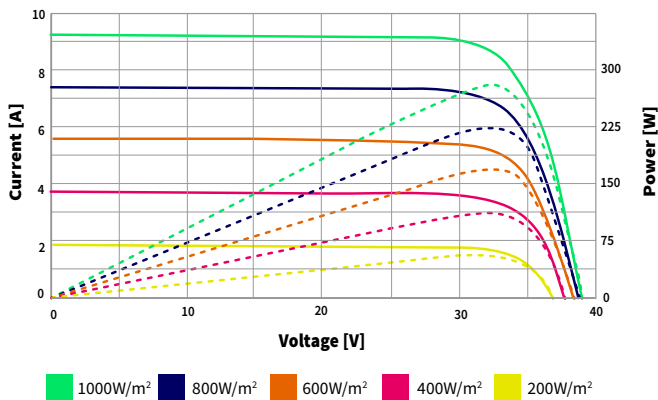
12 Years Warranty: 90% Power Output

25 Years Warranty: 80% Power Output

Electrical Characteristics

SOLAR CELLS		POLY-CRYSTALLINE 156.75 × 156.75MM 60 PCS. (6×10) – 5 BUS BARS		
Model	SEP 275 MB	SEP 280 MB	SEP 285 MB	
Performance at Standard Test Conditions (STC): 1000 W/m², 25°C, AM 1.5, positive power tolerance 0/+3 %				
Maximum Power (Pmax)	275 Wp	280 Wp	285 Wp	
Operating Voltage (Vmpp)	31.7 V	32.0 V	32.3 V	
Operating Current (Impp)	8.69 A	8.76 A	8.83 A	
Open-Circuit Voltage (Voc)	38.7 V	39.0 V	39.3 V	
Short-Circuit Current (Isc)	9.17 A	9.25 A	9.30 A	
Module Efficiency	16.8 %	17.1 %	17.4 %	
Performance at Nominal Operating Cell Temperature (NOCT) : 800 W/m², 20°C, AM 1.5, wind speed 1m/s				
Maximum Power (Pmax)	203 Wp	207 Wp	210 Wp	
Operating Voltage (Vmpp)	29.2 V	29.4 V	29.7 V	
Operating Current (Impp)	6.97 A	7.04 A	7.08 A	
Open-Circuit Voltage (Voc)	35.7 V	36.0 V	36.2 V	
Short-Circuit Current (Isc)	7.42 A	7.49 A	7.53 A	
Temperature Coefficient				
Temperature Coefficient at Pmax	- 0.40 % / °C			
Temperature Coefficient at Voc	- 0.31 % / °C			
Temperature Coefficient at Isc	+ 0.06 % / °C			
Nominal Operating Cell Temperature	45 ± 2 °C			
Operating conditions				
Maximum System Voltage	DC1000 V (IEC) / DC1500 V (IEC)			
Operating Temperature	-40 °C to 85 °C			
Maximum Series Fuse	15 A			
Static Loading	5400 Pa			
Conductivity at Ground	≤ 0.1 Ω			
Resistance	≥ 100 MΩ			
Safety Class	II			

I-V Curves at different irradiance



I-V Curves at different temperature

