

# 295 W – 310 W Mono-crystalline Solar Module



- Half-cut cell technology: New circuit design, lower internal current, lower Rs loss
- Maximize limited space: More internal reflection, maximum power output 310W
- Significantly lower the risk of hot spot: Special circuit design, lower hot spot temperature
- Lower LcoE: 1% more power generation
- Excellent anti-PID performance
- Highly reliable due to stringent quality control: certification requirements, in-house testing
- Certified to withstand the most challenging environmental conditions: 2400 Pa wind load, 5400 Pa snow load, 25 mm hail stones at 82 km/h
- IP68 junction box: the highest waterproof level

## Certificates



## Warranty

10 Years: Manufacturing Warranty

12 Years Warranty: 90% Power Output

25 Years Warranty: 80% Power Output

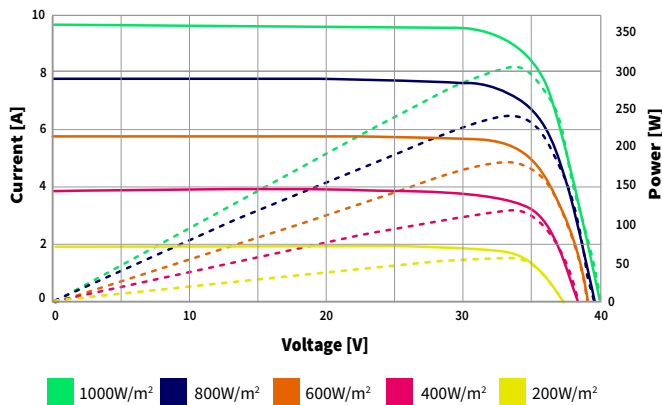
## Mechanical Characteristics

Cell type	Mono-crystalline
Cell Dimensions	156.75 × 156.75 mm, half-cut
Cell Arrangement	60 (6 × 10)
Weight	19.5 kg
Module Dimensions	1675 × 992 × 35 mm
Glass	3.2 mm, high transmission, tempered
Connector	MC4 compatible
Cable Length	300 mm
Cable Cross-section Size	4 mm <sup>2</sup>
No. of Bypass Diodes	3/6

# Electrical Characteristics

SOLAR CELLS		MONO-CRYSTALLINE 156.75 × 156.75MM 60 PCS. (6×10) – 5 BUS BARS			
Model	SEM 295 HC	SEM 300 HC	SEM 305 HC	SEM 310 HC	
Performance at Standard Test Conditions (STC): 1000 W/m <sup>2</sup> , 25°C, AM 1.5, positive power tolerance 0/+3 %					
Maximum Power (Pmax)	295 Wp	300 Wp	305 Wp	310 Wp	
Operating Voltage (Vmpp)	32.6 V	32.9 V	33.2 V	33.5 V	
Operating Current (Impp)	9.05 A	9.12 A	9.20 A	9.26 A	
Open-Circuit Voltage (Voc)	39.5 V	39.7 V	39.9 V	40.1 V	
Short-Circuit Current (Isc)	9.52 A	9.58 A	9.64 A	9.69 A	
Module Efficiency	18.0 %	18.3 %	18.6 %	18.9 %	
Performance at Nominal Operating Cell Temperature (NOCT) : 800 W/m <sup>2</sup> , 20°C, AM 1.5, wind speed 1m/s					
Maximum Power (Pmax)	217.9 Wp	221.6 Wp	225.2 Wp	228.7 Wp	
Operating Voltage (Vmpp)	30.1 V	30.3 V	30.7 V	31.0 V	
Operating Current (Impp)	7.24 A	7.30 A	7.34 A	7.38 A	
Open-Circuit Voltage (Voc)	36.5 V	36.7 V	36.86 V	37.03 V	
Short-Circuit Current (Isc)	7.69 A	7.74 A	7.79 A	7.83 A	
<b>Temperature Coefficient</b>					
Temperature Coefficient at Pmax	- 0.39 % / °C				
Temperature Coefficient at Voc	- 0.30 % / °C				
Temperature Coefficient at Isc	+ 0.05 % / °C				
Nominal Operating Cell Temperature	45 ± 2 °C				
<b>Operating conditions</b>					
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

