

**Classic Series**

**C7 III · 450-470W**  
MWT Mono PERC Half-Cut Module

**21.2%**

Module efficiency up to 21.2%

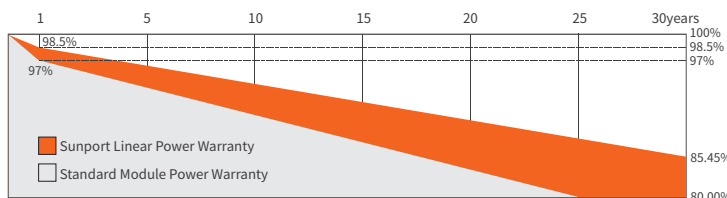
### Features

- High Efficiency**  
Busbar-free design increases cell conversion efficiency, more power output can be achieved at low irradiance conditions
- High Reliability**  
Conductive back sheet's 2D encapsulation avoids welding stress and micro crack, resulting lower degradation under multiple harsh testing conditions
- High ROI**  
Single-glass modules with global 30-year performance warranty bring higher return on investment
- Low LCOE**  
Higher return on investment with higher power output
- High Mechanical Loading Tolerance**  
Mechanical Load: 5400Pa(front)/2400Pa(rear)
- Lead Free**  
Eco-friendly PV design achieves lead-free MWT module without soldering materials

### Reinsurance Coverage for 30 Years



Insured by PAIC and LLOYD'S  
**PING AN LLOYD'S**



※1st year degradation less than 1.5%, 30 years linear power output 85.45% guaranteed.

### Comprehensive Qualifications & Certifications

- ★CQC Top Runner Advanced Technology Certification (4A class)
- ★TUV NORD Certification
- ★ISO 9001:2015 Quality Management System
- ★ISO 14001:2015 Environment Management System
- ★ISO 45001:2018 Occupation Health Safety Management System



## Electrical Characteristics at Standard Test Conditions(STC)

Spec/Model	Unit	SPP450QHHH	SPP455QHHH	SPP460QHHH	SPP465QHHH	SPP470QHHH
Max-Power(Pm)	W	450	455	460	465	470
Power Tolerance	W			0~+5		
Max-Power Voltage(Vm)	V	41.7	41.9	42.1	42.3	42.5
Max-Power Current(Im)	A	10.80	10.86	10.93	11.00	11.06
Open-Circuit Voltage(Voc)	V	51.0	51.1	51.2	51.3	51.4
Short-Circuit Current(Isc)	A	11.29	11.35	11.41	11.48	11.55
Module Efficiency(ηm)	%	20.3	20.5	20.8	21.0	21.2

STC: AM=1.5, Irradiation 1000W/m<sup>2</sup>, Module Temperature 25°C Power Tolerance ±3%

## Electrical Characteristics at Nominal Module Operating Temperature (NMOT)

Spec/Model	Unit	SPP450QHHH	SPP455QHHH	SPP460QHHH	SPP465QHHH	SPP470QHHH
Max-Power(Pm)	W	336	340	344	348	352
Max-Power Voltage(Vm)	V	38.1	38.3	38.5	38.7	38.9
Max-Power Current(Im)	A	8.82	8.88	8.94	9	9.05
Open-Circuit Voltage(Voc)	V	46.6	46.7	46.8	46.9	47
Short-Circuit Current(Isc)	A	9.32	9.37	9.42	9.47	9.52

NMOT: Irradiation 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind Speed 1m/s

## Temperature Coefficient

Nominal Module Operating Temperature	43±2°C
Temperature coefficient of Pmax	-0.36%/°C
Temperature coefficient of Voc	-0.28%/°C
Temperature coefficient of Isc	0.06%/°C

## Package

Transportation	Container Size	Quantity(pcs)	Quantity(per pallet)
Container	40' HQ	620 / 650	31

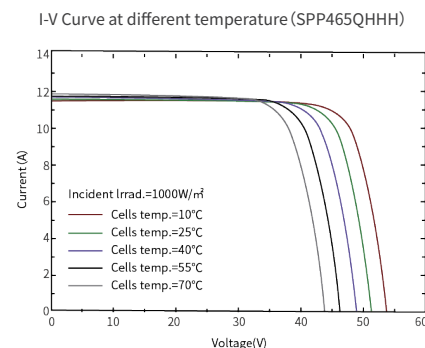
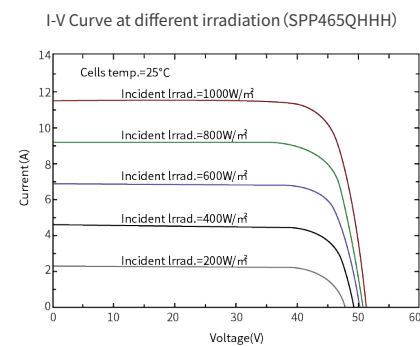
## Mechanical Characteristics

Dimension(L×W×H)	2141mmx1035mmx35mm
Weight	25kg
Glass Type	High Transmittance Anti-reflective Coated Tempered Glass /3.2mm
Solar Cell	150(25x6) / Mono / 166mm(Half-cell)
Encapsulant	EVA
Frame	Anodized Aluminum Alloy / Silver
Junction Box	IP68
Cable	4mm <sup>2</sup> , 350mm (+) / 150mm (-); Customizable
Connector	MC4 Compatible

## Operating Conditions

Max System Voltage	1500V(TUV)
Max Fuse Rated Current	20A
Operating Temperature Range	-40°C~+85°C
Mechanical Load	5400Pa (front) /2400Pa (rear)
Max Allowable Hail Load	φ25mm hail, from 1m of distance at 23 m/s
Application Class	Class A

## I-V Curve



## Module Size

