







**Classic Series**

**C7 II · 445-465W  
MWT Mono PERC Half-Cut Module**

**21.0%**

Module efficiency up to 21.0%

### Features

- 
**Innovative Layout**  
 Innovative back contact module layout with asymmetric design for higher efficiency power
- 
**High Reliability**  
 Conductive back sheet's 2D encapsulation avoids welding stress and micro crack, resulting lower degradation under multiple harsh testing conditions
- 
**Aesthetic Design**  
 The design of busbar and tapping ribbon free makes module more aesthetic
- 
**High Efficiency**  
 Busbar-free design increases cell conversion efficiency, more power output can be achieved at low irradiance conditions
- 
**High ROI**  
 Single-glass modules with global 30-year performance warranty bring higher return on investment
- 
**Lead Free**  
 Eco-friendly PV design achieves lead-free MWT module without soldering materials

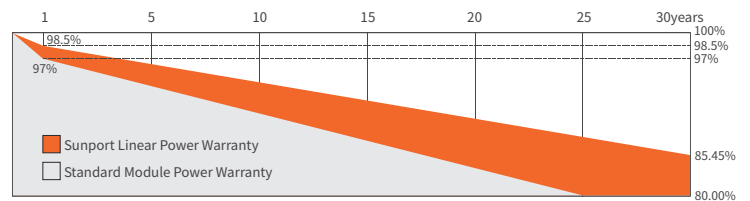
### Reinsurance Coverage for 30 Years

**15 year**  
Quality Warranty

**30 year**  
Performance Warranty

Insured by PICC and LLOYD'S

**PICC 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	SPP445NHJH	SPP450NHJH	SPP455NHJH	SPP460NHJH	SPP465NHJH
Max-Power(Pm)	W	445	450	455	460	465
Power Tolerance	W			0~+5		
Max-Power Voltage(Vm)	V	43.6	43.8	44.0	44.2	44.4
Max-Power Current(I <sub>m</sub> )	A	10.22	10.28	10.35	10.42	10.48
Open-Circuit Voltage(Voc)	V	52.7	52.9	53.1	53.3	53.5
Short-Circuit Current(I <sub>sc</sub> )	A	10.75	10.82	10.89	10.95	11.00
Module Efficiency(η <sub>m</sub> )	%	20.1	20.3	20.5	20.8	21.0

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

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

Spec/Model	Unit	SPP445NHJH	SPP450NHJH	SPP455NHJH	SPP460NHJH	SPP465NHJH
Max-Power(Pm)	W	334	338	342	346	350
Max-Power Voltage(Vm)	V	41.0	41.2	41.4	41.6	41.8
Max-Power Current(I <sub>m</sub> )	A	8.15	8.21	8.27	8.32	8.38
Open-Circuit Voltage(Voc)	V	49.7	49.9	50.1	50.3	50.5
Short-Circuit Current(I <sub>sc</sub> )	A	8.70	8.75	8.80	8.85	8.90

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 P <sub>max</sub>	-0.36%/°C
Temperature coefficient of Voc	-0.28%/°C
Temperature coefficient of I <sub>sc</sub>	0.06%/°C

## Package

Transportation	Container Size	Quantity(pcs)	Quantity(per pallet)
Container	40' HC	682	31

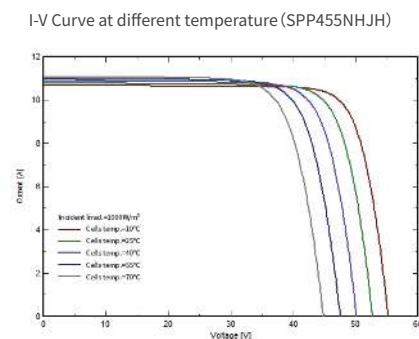
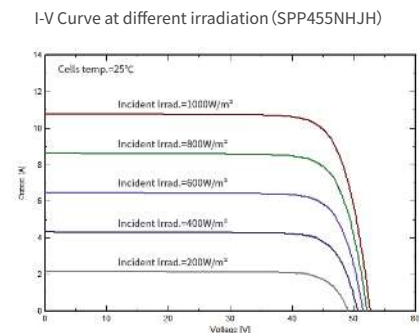
## Mechanical Characteristics

Dimension(L×W×H)	2005mmx1105mmx35mm
Weight	23.6kg
Glass Type	High Transmittance Anti-reflective Coated Tempered Glass /3.2mm
Solar Cell	156(13x12) / Mono / Half-cell
Encapsulant	EVA
Frame	Anodized Aluminum Alloy / Silver
Junction Box	IP68
Cable	4mm <sup>2</sup> , 450mm (+)/ 150mm (-); Customizable
Connector	MC4 Compatible

## Operating Conditions

Max System Voltage	DC1500V(TUV)
Max Fuse Rated Current	15A
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

