Sunport Power

# Classic Series

## C7 · 415-435W

## 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 ROI**
Single-glass modules with global 30-year performance warranty bring higher return on investment

**High Mechanical Loading Tolerance**
Mechanical Load: 5400Pa(front)/2400Pa(rear)

**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

**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 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)
★ISO 9001:2015 Quality Management System
★ISO 45001: 2018 Occupation Health Safety Management System
★TUV NORD Certification
★ISO 14001:2015 Environment Management System


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## Electrical Characteristics at Standard Test Conditions(STC)

| Spec/Model | Unit | SPP415NH7H | SPP420NH7H | SPP425NH7H | SPP430NH7H | SPP435NH7H |
|---|---|---|---|---|---|---|
| Max-Power(Pm) | W | 415 | 420 | 425 | 430 | 435 |
| Power Tolerance | W | | | 0~+5 | | |
| Max-Power Voltage(Vm) | V | 40.0 | 40.2 | 40.4 | 40.6 | 40.8 |
| Max-Power Current(Im) | A | 10.38 | 10.45 | 10.52 | 10.60 | 10.67 |
| Open-Circuit Voltage(Voc) | V | 48.6 | 48.8 | 49.0 | 49.2 | 49.3 |
| Short-Circuit Current(Isc) | A | 10.89 | 10.95 | 11.01 | 11.05 | 11.12 |
| Module Efficiency(ηm) | % | 20.3 | 20.5 | 20.7 | 21.0 | 21.2 |
| STC: AM=1.5，Irradiation 1000W/m²，Module Temperature 25°C Power Tolerance ±3% | | | | | | |

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

| Spec/Model | Unit | SPP415NH7H | SPP420NH7H | SPP425NH7H | SPP430NH7H | SPP435NH7H |
|---|---|---|---|---|---|---|
| Max-Power(Pm) | W | 312 | 316 | 320 | 324 | 329 |
| Max-Power Voltage(Vm) | V | 37.9 | 38.1 | 38.3 | 38.5 | 38.7 |
| Max-Power Current(Im) | A | 8.24 | 8.30 | 8.36 | 8.42 | 8.51 |
| Open-Circuit Voltage(Voc) | V | 45.80 | 46.0 | 46.20 | 46.4 | 46.60 |
| Short-Circuit Current(Isc) | A | 8.81 | 8.86 | 8.91 | 8.94 | 9.00 |
| NMOT: Irradiation 800W/m², 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 | 682 / 726 | 31 |

## Mechanical Characteristics

| | |
|---|---|
| Dimension(L×W×H) | 2019mmx1015mmx35mm |
| Weight | 22.8kg |
| Glass Type | High Transmittance Anti-reflective Coated Tempered Glass /3.2mm |
| Solar Cell | 144(24x6) / Mono / Half-cell |
| Encapsulant | EVA |
| Frame | Anodized Aluminum Alloy / Silver |
| Junction Box | IP68 |
| Cable | 4mm², 350mm (+) / 150mm (-)；Customizable |
| Connector | MC4 Compatible |

## Operating Conditions

| | |
|---|---|
| Max System Voltage | 1500V(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

I-V Curve at different irradiation (SPP420NH7H)

I-V Curve at different temperature (SPP420NH7H)

## Module Size