

# Full-Black Series

D 6 III · 385-405W  
MWT Mono PERC Half-Cut All Black Module

20.7%

Module efficiency up to 20.7%

## Features

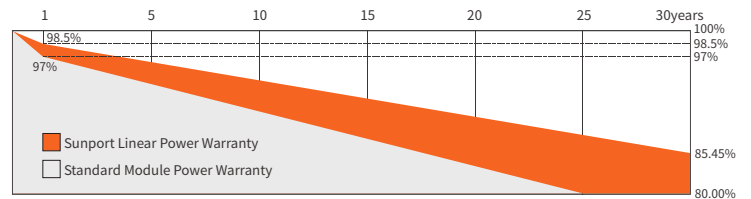
- Full Black**  
All black design for more elegant applications
- Innovative Layout**  
Innovative back contact module layout with asymmetric design for higher efficiency power
- High ROI**  
Single-glass modules with global 30-year performance warranty bring higher return on investment
- High Efficiency**  
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
- 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

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



## Electrical Characteristics at Standard Test Conditions(STC)

Spec/Model	Unit	SPP385QHFH	SPP390QHFH	SPP395QHFH	SPP400QHFH	SPP405QHFH
Max-Power(Pm)	W	385	390	395	400	405
Power Tolerance	W			0~+5		
Max-Power Voltage(Vm)	V	36.5	36.7	36.9	37.1	37.3
Max-Power Current(I <sub>m</sub> )	A	10.55	10.63	10.73	10.79	10.86
Open-Circuit Voltage(Voc)	V	44.3	44.5	44.7	44.9	45.1
Short-Circuit Current(I <sub>sc</sub> )	A	11.07	11.14	11.21	11.28	11.35
Module Efficiency(η <sub>m</sub> )	%	19.7	19.9	20.2	20.5	20.7

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	SPP385QHFH	SPP390QHFH	SPP395QHFH	SPP400QHFH	SPP405QHFH
Max-Power(Pm)	W	288	292	296	300	305
Max-Power Voltage(Vm)	V	34.2	34.4	34.6	34.8	35.0
Max-Power Current(I <sub>m</sub> )	A	8.43	8.49	8.56	8.63	8.71
Open-Circuit Voltage(Voc)	V	41.4	41.6	41.8	42.0	42.2
Short-Circuit Current(I <sub>sc</sub> )	A	8.94	9.00	9.06	9.12	9.18

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

## Mechanical Characteristics

Dimension(L×W×H)	1889mmx1035mmx30mm
Weight	20.5kg
Glass type	High transmittance anti-reflective coated tempered glass /3.2mm
Cell	132(22x6) / Mono / Half-cell
Encapsulant	EVA
Frame	Anodized Aluminum Black
Junction box(protection degree)	IP68
Cable	4mm <sup>2</sup> ,350mm(+)/150mm(-) or Customized-Length
Connector	MC4 Compatible

## Operating Conditions

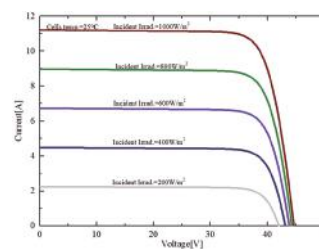
Max. system voltage	DC1500V(TUV)
Max. series fuse rating	20A
Operating temperature range	-40°C~+85°C
Mechanical load	5400Pa/2400Pa
Max. hailstone impact(diameter/velocity)	Φ25mm hail, from 1 m of distance at 23 m/s
Application Class	Class A

## Package

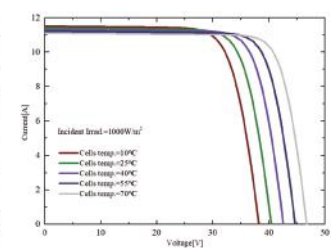
Transportation	Container Size	Quantity(pcs)	Quantity(per pallet)
Container	40' HQ	864	36

## I-V Curve

I-V Curves of SPP395QHFH at different irradiance



I-V Curves of SPP395QHFH at different cell temperature



## Module Size

