

# 435-455w

## Helios Module Series

N-HJT HIGH EFFICIENCY 96-18BB-B-TG

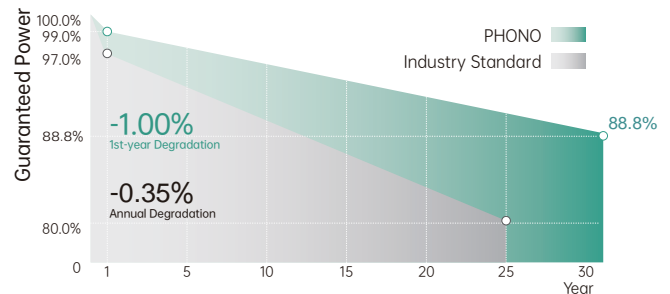
**Bloomberg**  
NEW ENERGY FINANCE

**Tier1**



### Excellent Power Generation Performance

- Optimized cell size brings higher power
- Up to 95% bifaciality
- Competitive high-temperature performance with ameliorated temperature coefficient ( $-0.24\%/^{\circ}\text{C}$ )
- Better weak illumination response of HJT technology leads higher power generation



**15-year**  
Product Warranty

**30-year**  
Linear Performance Warranty

### Higher Quality Reliability

- N-type with lower LID and LeTID
- Industry-leading cell technology of TCO thin film contributes to excellent anti-PID characteristic
- Sealing with PIB based sealant to achieve stronger water resistance, greater air impermeability and longer module lifespan

### More Environmentally Friendly

- Low temperature welding technology & shorter manufacturing process contributes to lower carbon emissions

### MANAGEMENT SYSTEM CERTIFICATES

IEC 61215, IEC 61730

ISO 9001

2015 / Quality management system

ISO 14001

2015 / Standards for environmental management system

ISO 45001

2018 / International standards for occupational health & safety



## Electrical Typical Values

Model	PS435L12GFH-16/QSH		PS440L12GFH-16/QSH		PS445L12GFH-16/QSH		PS450L12GFH-16/QSH		PS455L12GFH-16/QSH	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated Power (Pmpp)	435	332	440	335	445	339	450	343	455	347
Rated Current (Impp)	14.27	11.40	14.38	11.49	14.49	11.58	14.60	11.67	14.71	11.76
Rated Voltage (Vmpp)	30.50	29.12	30.61	29.23	30.72	29.34	30.83	29.45	30.94	29.55
Short Circuit Current (Isc)	15.20	12.15	15.31	12.24	15.42	12.32	15.53	12.41	15.64	12.50
Open Circuit Voltage (Voc)	36.42	34.76	36.52	34.86	36.62	34.95	36.72	35.05	36.82	35.14
Module Efficiency (%)	21.80		22.00		22.30		22.50		22.80	

STC (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, AM 1.5, Cell Temperature 25°C

NOCT (Nominal Operation Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Spectra at AM1.5, Wind at 1m/s

Made in China.Measurement Tolerance at STC:Pmax±3%,Voc±3% and Isc±5%

## BNPI

Maximum Power (Pmax)	487	493	499	504	510
Optimum Operating Current (Impp)	15.94	16.07	16.19	16.31	16.44
Optimum Operating Voltage (Vmpp)	30.61	30.72	30.83	30.94	31.05
Short Circuit Current (Isc)	17.05	17.17	17.29	17.42	17.54
Open Circuit Voltage (Voc)	36.55	36.65	36.75	36.85	36.95

BNPI:Front Side Irradiation 1000W/m<sup>2</sup>, Back Side Reflection Irradiation 135W/m<sup>2</sup>, AM 1.5, Ambient Temperature 25°C

## Mechanical Characteristics

Cell Type	HJT Monocrystalline
Dimension (L × W × H)	Length: 1762mm (69.37 inch) Width: 1134mm (44.65 inch) Height: 30mm (1.18 inch)
Weight	21.8kg (48.06 lbs)
Glass	2.0mm/2.0mm toughened glass
Frame	Anodized Aluminium Alloy
Cable (Including Connector)	4mm <sup>2</sup> (IEC), 1250mm or Customized Length
Junction Box/Connector	IP 68 Rated, Staubli EVO2

## Temperature Ratings

Voltage Temperature Coefficient	-0.22%/°C
Current Temperature Coefficient	+0.04%/°C
Power Temperature Coefficient	-0.24%/°C
Power Tolerance	0~+5w
NOCT	44±2°C
Bifaciality Coefficient	Pmax : 90±5%, Voc:95~100%, Isc: 90±5%

## Absolute Maximum Rating

Operating Temperature	From -40 to + 85°C
Hail Diameter @ 80km/h	Up to 25mm
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Maximum Series Fuse Rating	30A
PV Module Classification	Class II
Fire Rating (IEC 61730)	C
Maximum System Voltage	DC 1500V

## Packing Configuration

Container	40' HQ
Pieces/Container	936
Pcs/Pallet	36
Pallets/Container	26

## Electrical Characteristics

