

# Mercury Series

Black Frame Mono Crystalline

## 450-470W

0~+5W POWER TOLERANCE

- High efficiency N - type Double glass solar module
- Stronger properties, PID resistance, reduced hot spot loss
- Better temperature coefficient
- Harsh environmental adaptation
- Bifacial module, more power generation

25 years material warranty **25**

30 years power linear warranty **30**

**108**

HALF-CUT  
CELLS

**182**  
x188  
mm

RECTANGULAR  
CELLS



**23.5%**  
MAXIMUM CONVERSION

**0~+5W**  
POWER TOLERANCE

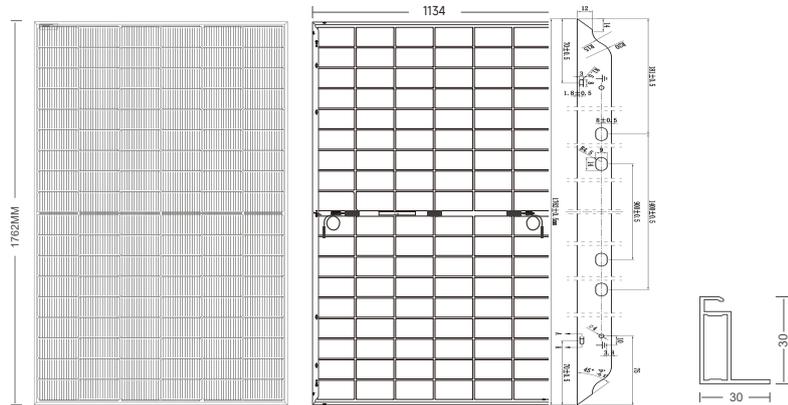
**0.4%**  
0.4% PER YEAR OVER 30 YEARS

**Half-Cut Module**  
LOWER TEMPERATURE COEFFICIENT

## Specification

Cell Type	Mono Crystalline 16BB
No. of Cells	108 [2x(6x9)] pcs
Dimension	1762×1134×30mm
Weight	25.0kg±3%
Front Glass	2.0mm
Back Glass	2.0mm
Frame	Anodized Aluminum Alloy
Junction Box	IP68
Cable Length	300mm,1200mm(can be customized)

## Mechanical Diagrams



Length: ±2mm Width: ±2mm Thickness: ±1mm Hole pitch: ±2mm

## Packing Standard

37pcs/pallet

40HQ: 26 pallets/container, 962pcs/container

## Electrical Parameters

Module Type	QN-450HT-05		QN-455HT-05		QN-460HT-05		QN-465HT-05		QN-470HT-05	
	STC	NOCT								
Peak Power-Pmax (W)	450	340	455	344	460	348	465	352	470	355
Open Circuit Voltage-Voc (V)	39.98	37.98	40.08	38.08	40.37	38.35	40.63	38.60	40.90	38.86
Short Circuit Current-Isc (A)	14.25	11.40	14.30	11.44	14.36	11.49	14.42	11.54	14.48	11.58
Maximum Power Voltage-Vmp(V)	33.23	31.40	33.48	31.64	33.72	31.87	33.97	32.10	34.21	32.33
Maximum Power Current-mp(A)	13.54	10.83	13.59	10.87	13.64	10.91	13.69	10.95	13.74	10.99
Module Efficiency - nm(%)	22.5		22.8		23.0		23.2		23.5	

## Electrical Parameters At BNPI

Maximum Power-Pmax(W)	496	502	507	513	518
Open Circuit Voltage-Voc (V)	39.98	40.08	40.37	40.63	40.90
Short Circuit Current-Isc135 (A)	15.71	15.77	15.84	15.90	15.96
Short Circuit Current-Isc300 (A)	17.49	17.57	17.64	17.71	17.78
Maximum Power Voltage-Vmp (V)	33.23	33.48	33.72	33.97	34.21
Maximum Power Current-Imp (A)	14.93	14.98	15.04	15.09	15.15

## Operating Parameters

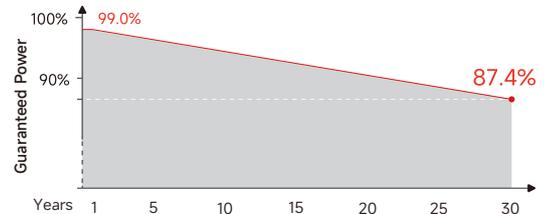
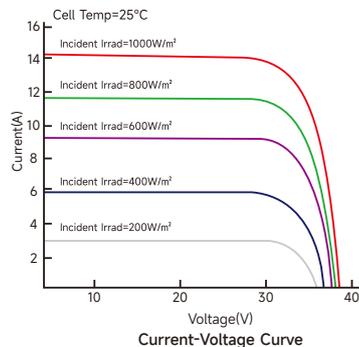
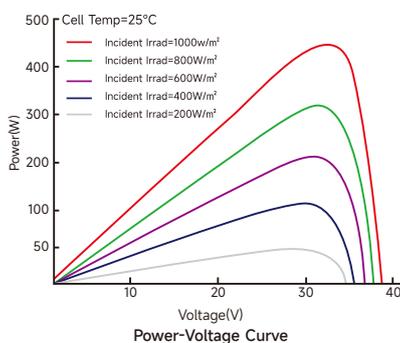
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25A
Nominal Operating Cell Temperature	42±2°C
Operational Temperature	-45°C~+85°C
Safety Class	Class II
Refer.Bifacial Factor	80%+10%

## Temperature Coefficient (STC Test)

Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Voc	-0.24%/°C
Temperature Coefficient of Pmax	-0.29%/°C

## Load Capacity

Max Load Front	5400Pa
Max Load Back	2400Pa
Through Hail Testing	25mm Diameter, Impact Speed 23m/s



**STC** : Irradiance:1000W/m<sup>2</sup> | Battery temperature: 25°C | Atmospheric=1.5  
**NOCT**: Irradiance:800W/m<sup>2</sup> | Ambien temperature: 20°C | Atmospheric=1.5 | Wind speed 1m/s  
**BNPI**: Rear Irradiance 135W/m<sup>2</sup> | Bifaciality coefficient 80%±5%

D5 Greenland Window Building  
Nonghua Road  
Yuhuatai District, Nanjing, China  
www.q-sunsolar.com

