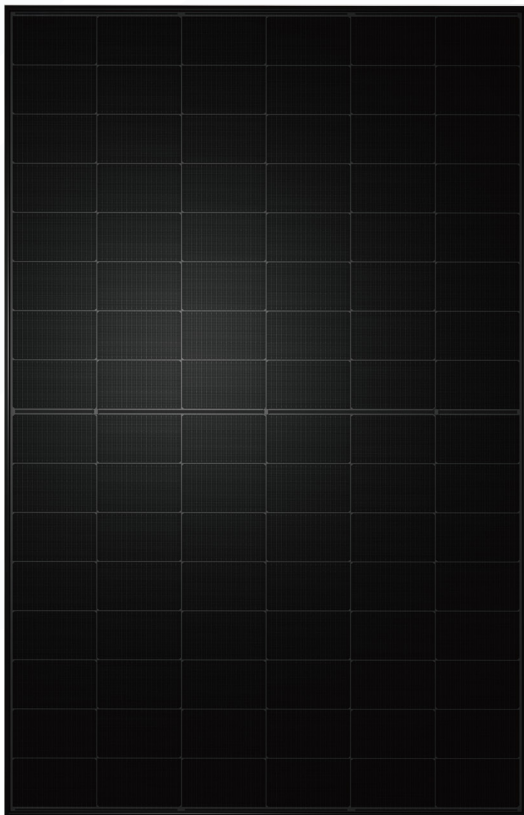


# 450~470W

Module HC 96 Dual Glass Bifacial Full Black

Mono-Crystalline N Type



**0~+3%**

POWER SORTING

**23.5%**

MAX MODULE EFFICIENCY

**≤1.0%**

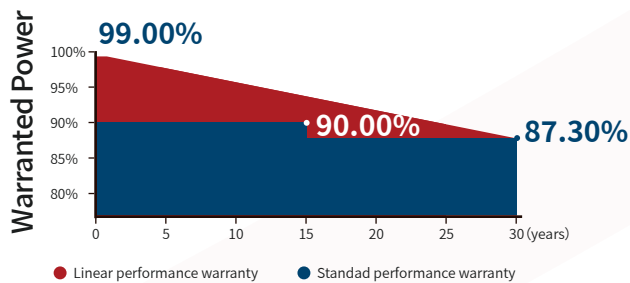
FIRST YEAR POWER DEGRADATION

**≤0.4%**

YEAR 2-30 POWER DEGRADATION

## Key Features

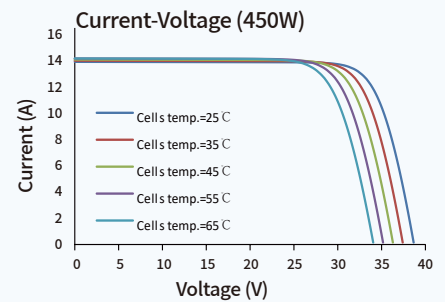
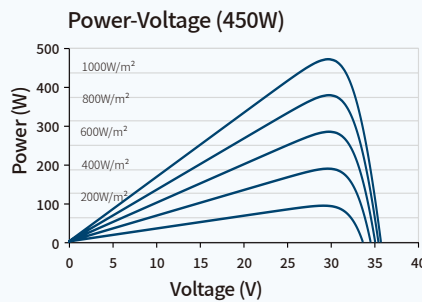
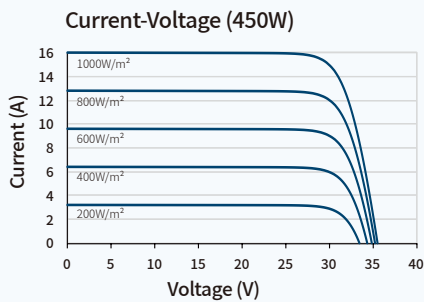
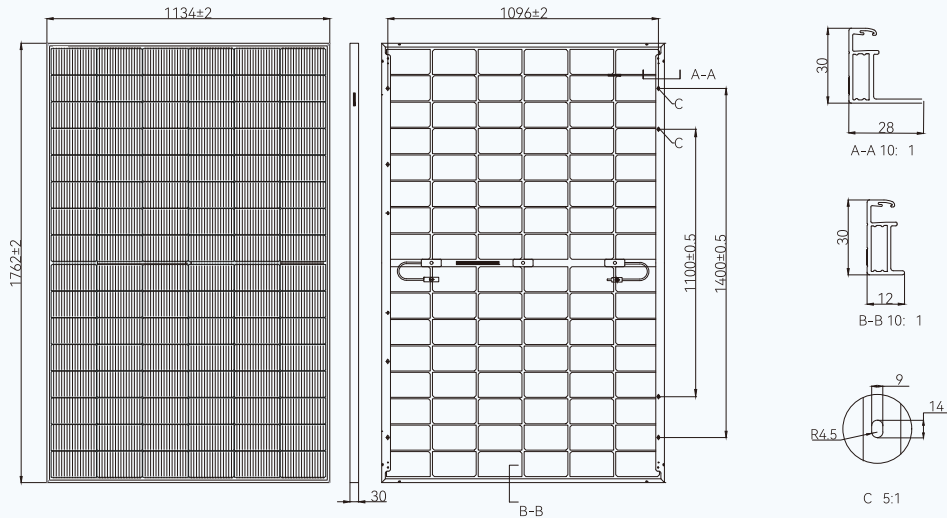
-  Multi Busbar Solar Cell
-  High Efficiency
-  PID Resistance
-  Low-light Performance
-  Severe Weather Resilience
-  Durability Against Extreme Environmental Conditions



## Warranty

-  Commercial Rooftop
-  25 YEAR Materials Warranty
-  30 YEAR Power Warranty

## Drawings (Unit:mm)



## Mechanical Parameters

Cells	N-Type Mono-crystalline -
Cell Orientation	96[6x16]
Dimension	1762±2x1134±2x30mm
Weight	21.0kg
Front / Back Glass	1.6+1.6mm (0.063+0.063 inch)
Frame	Aluminum, Silver Anodized
Junction Box	IP68 Rated, MC4-EVO2A connector
Output Cable	TUV 1x4.0mm <sup>2</sup>
Cable Length	1200mm or Customized Length
Wind / Snow Load	2400Pa/5400Pa
Fire Rating	UL: Type 1, IEC:Class C
Packaging	36pcs/pallet, 72pcs/stack, 900pcs/53FT Truck

## Temperature Parameters

Temperature Coefficient (Pmax)	-0.30%/°C
Temperature Coefficient (Voc)	-0.25%/°C
Temperature Coefficient (Isc)	+0.046%/°C
NMOT	41±2°C

## Maximum Ratings

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30 A
Power Output Tolerance	0~+3%

## Electrical Characteristics(STC)

**STC:** Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass1.5, Measuring Tolerance: ±3%

Maximum Power:Pmax[W]	450	455	460	465	470
Open Circuit Voltage:Voc[V]	35.03	35.21	35.39	35.57	35.75
Short Circuit Current:Isc[A]	16.05	16.10	16.15	16.20	16.25
Voltage at Maximum Power:Vmp[V]	30.08	30.26	30.44	30.62	30.80
Current at Maximum Power:Imp[A]	14.97	15.04	15.11	15.19	15.26
Module Efficiency: η [%]	22.52	22.77	23.02	23.27	23.52

## Electrical Characteristics(NMOT)

**NMOT:** Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Air Mass1.5, Wind Speed 1m/s

Maximum Power:Pmax[W]	338	342	346	349	353
Open Circuit Voltage :Voc[V]	33.28	33.45	33.62	33.79	33.96
Short Circuit Current :Isc[A]	12.96	12.99	13.03	13.07	13.11
Voltage at Maximum Power:Vmp[V]	27.96	28.14	28.31	28.48	28.64
Current at Maximum Power:Imp[A]	12.09	12.15	12.22	12.26	12.32

## Electrical Characteristics(Rear Power Gain)

5%	Maximum Power:Pmax[W]	473	478	483	488	494
	Module Efficiency: η [%]	23.65	23.91	24.17	24.44	24.70
15%	Maximum Power:Pmax[W]	518	523	529	535	541
	Module Efficiency: η [%]	25.90	26.19	26.48	26.76	27.05
25%	Maximum Power:Pmax[W]	563	569	575	581	588
	Module Efficiency: η [%]	28.15	28.46	28.78	29.09	29.40