

## Hitouch 5

CP18-60H

435-455W

### MONO PERC

High Efficiency Module

21.00%

Maximum Efficiency

12 YEARS

Product Warranty



#### Higher Power Output

Higher module conversion efficiency benefit from bigger wafer and half-cell structure.

MBB technology enhances current collection with lower series resistance.



#### Excellent Temperature Coefficient

Lower operating temperature and temperature coefficient increases the power output



#### Long-Term Reliability

Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal).

Excellent anti-PID performance to guarantee a better sustainability in harsh environment.

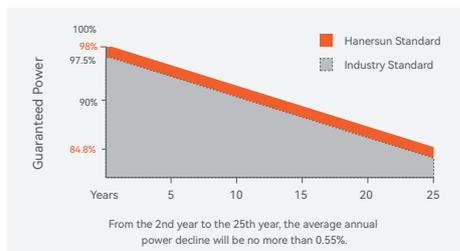


#### Lower Hot Spot and Crack Risk

Reduce hot-spot risk with optimized electrical design and lower operating current.

Reduce crack risk by MBB solar cell design.

### Power Warranty



12-year product warranty



25-year linear power output warranty

### Insurance



Munich RE



太平洋保險 CPIC

### Certificates



ISO 9001



TUV SUD



CE



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### About Hanersun

Hanersun is a world leading solar module manufacturer and comprehensive energy solution provider. We provide customers with cutting edge solar modules, and services for the entire project life cycle.

## Electrical Characteristics

Module Type	CP18-60H435W		CP18-60H440W		CP18-60H445W		CP18-60H450W		CP18-60H455W	
	STC	NMOT								
Maximum Power (Pmax)	435	329	440	333	445	336	450	340	455	344
Maximum Power Voltage (Vmp)	34.12	32.25	34.33	32.46	34.50	32.56	34.67	32.76	34.87	32.95
Maximum Power Current (Imp)	12.75	10.20	12.82	10.26	12.90	10.32	12.98	10.38	13.05	10.44
Open-circuit Voltage (Voc)	40.96	38.34	41.08	38.45	41.21	38.57	41.33	38.68	41.46	38.81
Short-circuit Current (Isc)	13.63	10.90	13.71	10.97	13.79	11.03	13.87	11.10	13.94	11.15
Module Efficiency(%)	20.08%		20.31%		20.54%		20.77%		21.00%	

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5  
\*Measuring tolerance: 0 ~ +5W

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

## Mechanical Parameters

Solar Cells	Monocrystalline (182mm)
No. of Cells	120 [2 x (10 x 6) ]
Module Dimensions	1910*1134*30mm
Weight	24.0kg
Glass	3.2mm, High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA/POE
Backsheet	White
Frame	Anodized Aluminium Alloy
J-Box	IP68
Output Cable	4.0mm <sup>2</sup>
(Including Connector)	Length Portrait:300/300mm (can be customized)
Connector	MC4 Compatible

## Temperature Ratings

NMOT (Nominal operating cell temperature)	45°C(±2°C)
Temperature Coefficient of Pmax	-0.350%/°C
Temperature Coefficient of Voc	-0.289%/°C
Temperature Coefficient of Isc	+0.045%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

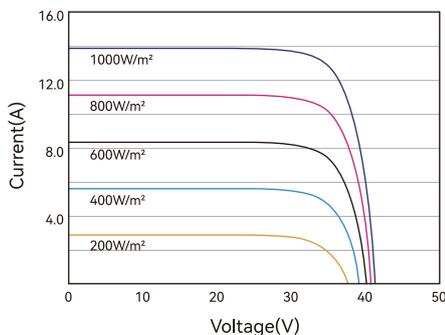
## Packaging

Pcs per Pallet: 36  
Pcs per 40' HC: 864

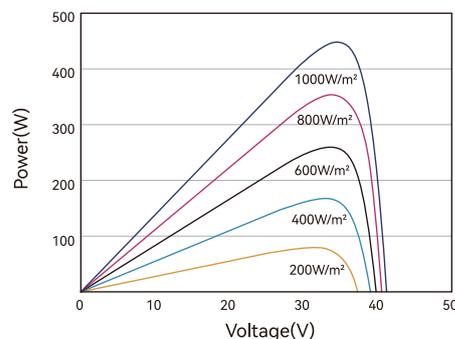
## Operating Parameters

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC (IEC)
Maximum Series Fuse Rating	25A
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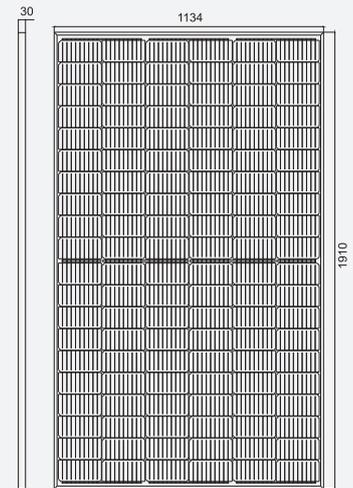
## I-V Curves of PV Module (450W)



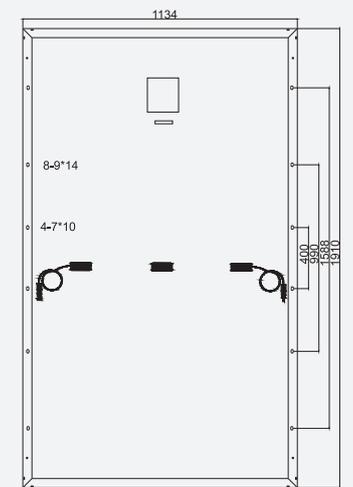
## P-V Curves of PV Module (450W)



## Dimensions (Unit: mm)



Front View



Back View