


# HiSEER 4N

SH18X-54H-S 435-455W

All Black Topcon Module

 **435-455W**  
Max. Power Output

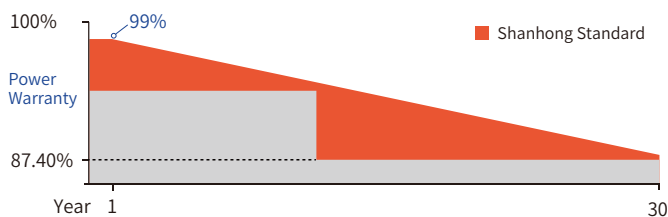
 **1762\*1134mm**  
Size

 **22.8%**  
Module Efficiency



## LINEAR PERFORMANCE WARRANTY

**30** Years linear power output warranty  
**15** Years product warranty on materials and workmanship



30 years decay  $\leq$  0.40% annually on average

## Product and System Certification

- IEC61215(2016)/IEC61730(2018)
- IEC61701/IEC62716/IEC60068 ● ISO9001:2015
- ISO14001:2015 ● ISO45001:2018

## Product advantages



### N-type TOPCon technology for lower LCOE

The lower temperature coefficient and better low irradiance performance of HJT technology can effectively reduce LCOE.



### Fire class A, harsh environment adaptability

The module adopt a double glass structure, which can adapt to all kinds of harsh environment, and the fire rating can reach Class A.



### 30-year power warranty

The average life of dual-glass module is 30 years, 5 years longer than that of single-glass modules.



### Double-sided power generation, higher income

The dual-glass module has a bifaciality of up to 80% and a power generation gain of 5%-25% on the back side.



## Electrical Characteristics(STC)

Maximum Power (Pmax)	435	440	445	450	455
Maximum Power Voltage (Vmp)	32.62	32.82	33.02	33.22	33.42
Maximum Power Current (Imp)	13.34	13.41	13.48	13.55	13.61
Open-circuit Voltage (Voc)	39.20	39.40	39.60	39.80	40.00
Short-circuit Current (Isc)	13.78	13.85	13.92	13.99	14.06
Module Efficiency [%]	21.8	22	22.3	22.5	22.8
Measuring tolerance [%]	0~+5%	0~+5%	0~+5%	0~+5%	0~+5%

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5

## Electrical Characteristics(NOCT)

Maximum Power (Pmax)	328	332	336	340	344
Maximum Power Voltage (Vmp)	30.36	30.56	30.76	30.96	31.16
Maximum Power Current (Imp)	10.80	10.86	10.92	10.98	11.04
Open-circuit Voltage (Voc)	37.26	37.46	37.66	37.86	38.06
Short-circuit Current (Isc)	11.15	11.20	11.25	11.30	11.35

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

## Mechanical Data

Module Dimensions	1722*1134*30mm
Solar Cells	Monocrystalline(182*182)
No. of Cells	108 [2 x (9 x 6)]
Glass	2*1.6mm, Heat Strengthened Glass
Frame	Black Anodized Aluminium Alloy
Encapsulant	EPE/EVA
J-Box	IP68
Connector	MC4 Compatible
Output Cable	4.0mm <sup>2</sup> , 300/300mm
Weight	19.8kg

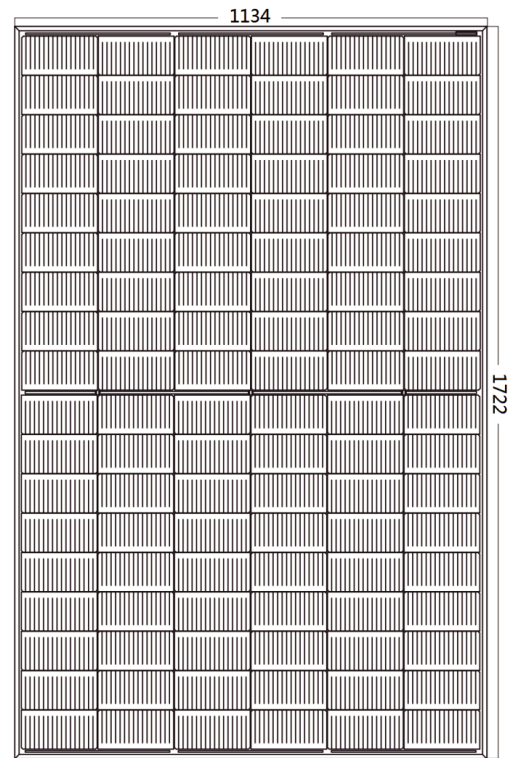
## Operating Data

Operational Temperature	-40°C~+85°C
Maximum System Voltage	1500V DC(IEC)
Maximum Series Fuse Rating	30A
Bifacility	/

## Temperature Ratings

Nominal operating cell temperature	45°C(±2°C)
Temperature Coefficient of Pmax	-0.290%/°C
Temperature Coefficient of Voc	-0.250%/°C
Temperature Coefficient of Isc	+0.040%/°C

## Structural Diagram(mm)

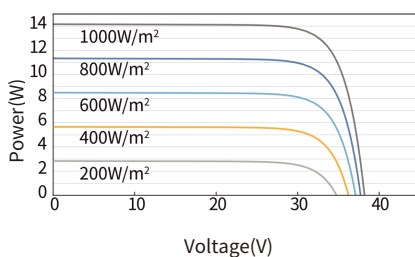


## Packaging

Pallet Dimensions	1792 × 1130 × 1250 mm
Information	36Pcs per Pallet, 936Pcs per 40HQ

## IV Curve and PV Curve

Test temperature 25°C



Irradiance: AM1.5, 1000W/m<sup>2</sup>

