

HT54-18X(ND)-F

Double Glass TOPCon PV Module

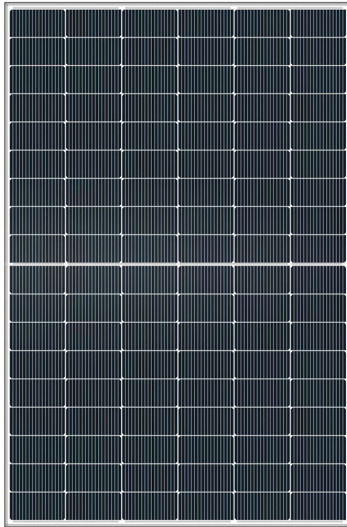
HIGH High power

Shanghai Aerospace Automobile Electromechanical Co., Ltd.
 Website: www.ht-saae.com.au
 Address: 222 Caoxi Rd, the 8th Floor of Spaceflight Building, Shanghai P.R. China

Made in China

HT54-18X(ND)-F

425W/430W/435W/440W/445W



- Module Efficiency 22.8%
- No. of Cells 108(6×18)
- Weight 24.0(±0.5)kg
- Dimensions 1722×1134×30mm
- Bifaciality 80(±5)%
- For Australia market

MULTIWAY+



Half cut cell technology can reduce the internal power loss and improve module overall power. Excellent heat dissipation avoids hot spot production.

TOPCon

Double glass, The optimized number and width of main gate lines, Maximize the light receiving area of modules and Reduce module power consumption.



Designed for high voltage systems of up to 1500 VDC, increasing the string length of solar systems and saving on BoS costs.

15/30Ys

Product warranty
 15Yrs for ground mounted
 30Yrs for rooftop

30Ys

Warranty on power output



All the modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.

EL

Microcrack resistant Double glass structure enhance reliability, double EL tested of high quality control.

0~+3%

Power sorting tolerance
 0~+3% guaranteed



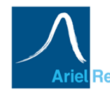
Entire module certified to with stand extreme wind(2400 Pa) and snow loads (5400 Pa)

Anti PID

PID resistant
 (available on request)

Comprehensive and first-rate certification system

IEC 61215:2021, IEC 61730:2023 Latest Standard SA 8000, ISO 9001, ISO 14001 and ISO 45001 meeting the highest international standards Strict quality control



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Electrical Characteristics (STC)

Module Type	HT54-18X(ND)-F				
Maximum Power(Pmax)	425W	430W	435W	440W	445W
Open Circuit Voltage(Voc)	38.2V	38.3V	38.4V	38.6V	38.7V
Short Circuit Current(Isc)	14.15A	14.23A	14.31A	14.39A	14.47A
Maximum Power Voltage(Vmp)	31.7V	31.9V	32.0V	32.2V	32.4V
Maximum Power Current(Imp)	13.42A	13.50A	13.60A	13.68A	13.76A
Module Efficiency	21.8%	22.0%	22.3%	22.5%	22.8%
Power/Voc/Isc Measurement Tolerances	±3%/±5%/±5%				
Maximum System Voltage	1500V DC(IEC)				
Maximum Series Fuse Rating	30A				
Operating Temperature	-40°C to +85°C				

* STC: AM 1.5, Irradiance 1000W/m², module temperature 25°C

Electrical Characteristics (NMOT)

Module Type	HT54-18X(ND)-F				
Maximum Power(Pmax)	323W	327W	331W	335W	338W
Open Circuit Voltage(Voc)	36.7V	36.8V	36.9V	37.1V	37.2V
Short Circuit Current(Isc)	11.40A	11.47A	11.53A	11.60A	11.66A
Maximum Power Voltage(Vmp)	30.4V	30.6V	30.7V	30.9V	31.1V
Maximum Power Current(Imp)	10.63A	10.69A	10.78A	10.84A	10.87A

* NMOT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s

Bifacial NamePlate Irradiance(BNPI)

Maximum Power(Pmax)	468W	473W	479W	484W	490W
Open Circuit Voltage(Voc)	38.2V	38.3V	38.4V	38.6V	38.7V
Short Circuit Current(Isc)	15.57A	15.65A	15.74A	15.83A	15.92A
Maximum Power Voltage(Vmp)	31.7V	31.9V	32.0V	32.2V	32.4V
Maximum Power Current(Imp)	14.76A	14.83A	14.97A	15.05A	15.12A

* BNPI:front 1000W/m²,rear 135W/m²

Nominal Module Operating Temperature(NMOT) 43±2°C

Temperature Coefficient of Pmax γ (Pm) -0.31%/°C

Temperature Coefficient of Voc β (Voc) -0.25%/°C

Temperature Coefficient of Isc α (Isc) 0.046%/°C

Solar Cells Monocrystalline

No. of Cells 108 (6×18)

Dimensions 1722×1134×30mm

Weight 24.0 (±0.5) kg

Glass (Front /Back) High transmission coated tempered glass/Heat strengthened glass

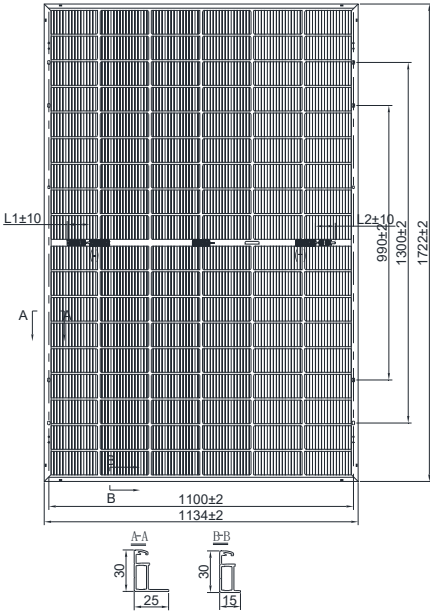
Frame Anodized aluminum alloy

Junction Box/Connectors IP68/PV-HT005-1
Shanghai Aerospace Automobile Electromechanical Co., Ltd.

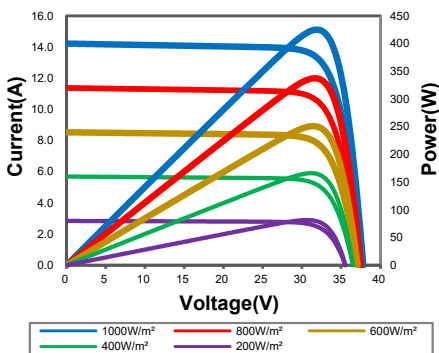
Cable 4mm² (IEC) Length: (+) 1200mm, (-) 1200mm or customized

Fire Rating Class C

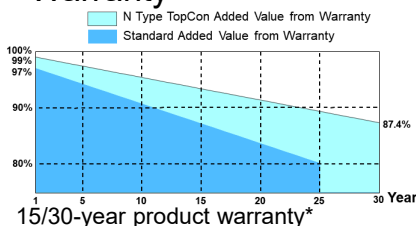
Packaging Configuration 36 pcs/box: 936 pcs/ 40' HQ Container



IV Curves



Warranty



30-year warranty on power output*

* Specific information is referred to the product quality guarantee

*The module recycling should be carried out by the professional institutions at the end of module life cycle

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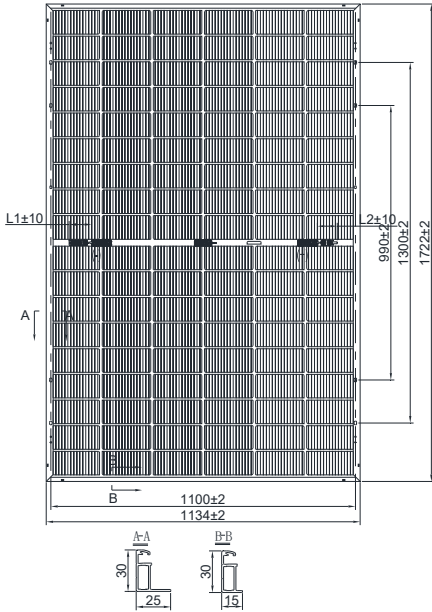
Bifacial output-rearside power gain

5%	Maximum Power(Pmax)	446W	452W	457W	462W	467W
	Module Efficiency	22.9%	23.1%	23.4%	23.7%	23.9%
15%	Maximum Power(Pmax)	489W	495W	500W	506W	512W
	Module Efficiency	25.0%	25.3%	25.6%	25.9%	26.2%
25%	Maximum Power(Pmax)	531W	538W	544W	550W	556W
	Module Efficiency	27.2%	27.5%	27.8%	28.2%	28.5%

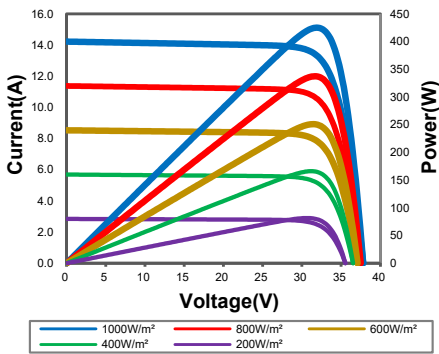
Bifaciality coefficient

φVoc	98 (±5) %
φIsc	80 (±5) %
φPmax	80 (±5) %

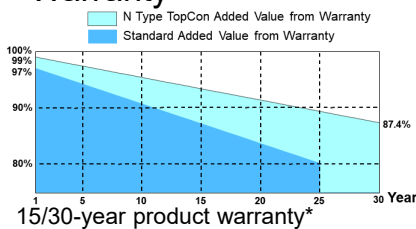
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Packaging Configuration	36 pcs/box: 936 pcs/ 40' HQ Container



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