

HT54-18X(ND)-F

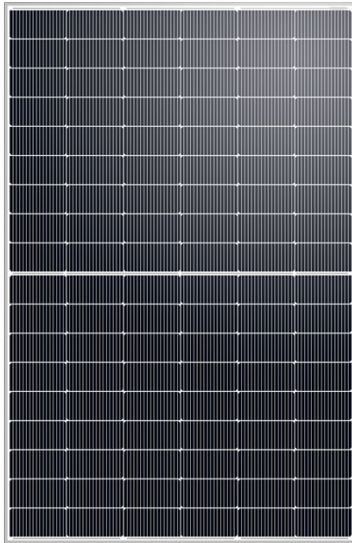
Double Glass TOPCon PV Module

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 440W/445W/450W/455W/460W



- Module Efficiency: 23.0%
- No. of Cells 108(6×18)
- Weight 25.0(±0.5)kg
- Dimensions 1762×1134×30mm
- 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



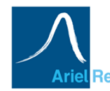
Entire module certified to with stand extreme wind(2400 Pa) and snow loads (5400 Pa)

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)	440W	445W	450W	455W	460W
Open Circuit Voltage(Voc)	38.6V	38.7V	38.8V	39.1V	39.4V
Short Circuit Current(Isc)	14.39A	14.47A	14.55A	14.61A	14.67A
Maximum Power Voltage(Vmp)	32.2V	32.4V	32.5V	32.7V	32.9V
Maximum Power Current(Imp)	13.68A	13.76A	13.85A	13.92A	13.99A
Module Efficiency	22.0%	22.3%	22.5%	22.8%	23.0%
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)	335W	338W	342W	346W	350W
Open Circuit Voltage(Voc)	37.1V	37.2V	37.2V	37.5V	37.8V
Short Circuit Current(Isc)	11.60A	11.66A	11.73A	11.77A	11.82A
Maximum Power Voltage(Vmp)	30.9V	31.1V	31.2V	31.4V	31.6V
Maximum Power Current(Imp)	10.84A	10.87A	10.96A	11.02A	11.08A

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

Bifacial NamePlate Irradiance(BNPI)

Maximum Power(Pmax)	484W	490W	495W	501W	506W
Open Circuit Voltage(Voc)	38.6V	38.7V	38.8V	39.1V	39.4V
Short Circuit Current(Isc)	15.83A	15.92A	16.01A	16.07A	16.14A
Maximum Power Voltage(Vmp)	32.2V	32.4V	32.5V	32.7V	32.9V
Maximum Power Current(Imp)	15.05A	15.12A	15.23A	15.32A	15.38A

* 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 1762×1134×30mm

Weight 25.0 (±0.5) kg

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

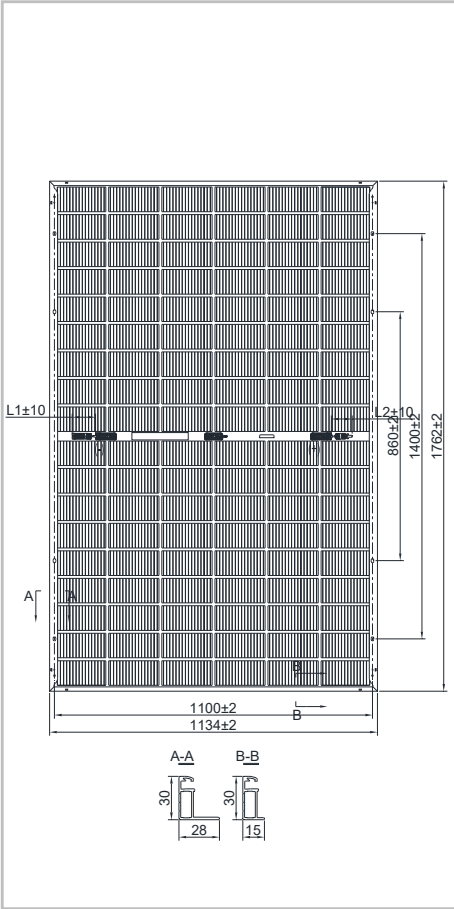
Frame Anodized aluminum alloy

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

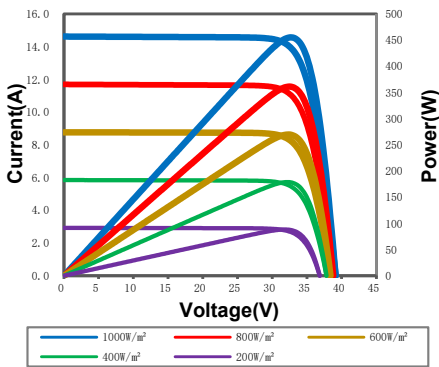
Cable 4mm² (IEC) Length: (+) 1200mm, (-) 1200mm or customized

Fire Rating Class C

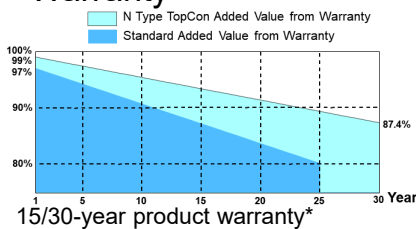
Packaging Configuration 36 pcs/box: 936 pcs/ 40' HQ Container



IV Curves



Warranty



15/30-year product 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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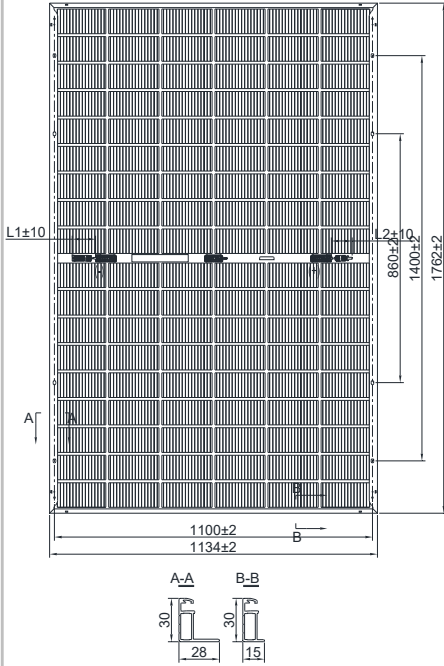
Bifacial output-rearside power gain

5%	Maximum Power(Pmax)	462W	467W	473W	478W	483W
	Module Efficiency	23.1%	23.4%	23.6%	23.9%	24.2%
15%	Maximum Power(Pmax)	506W	512W	518W	523W	529W
	Module Efficiency	25.3%	25.6%	25.9%	26.2%	26.5%
25%	Maximum Power(Pmax)	550W	556W	563W	569W	575W
	Module Efficiency	27.5%	27.8%	28.2%	28.5%	28.8%

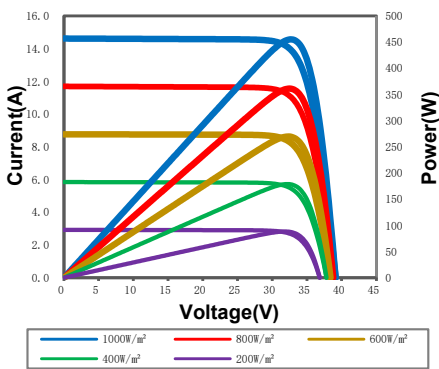
Bifaciality coefficient

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

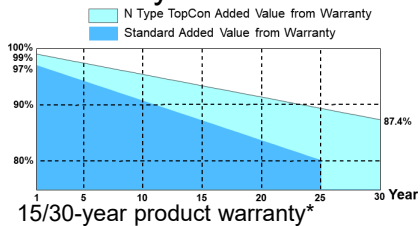
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Packaging Configuration	36 pcs/box: 936 pcs/ 40' HQ Container



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