



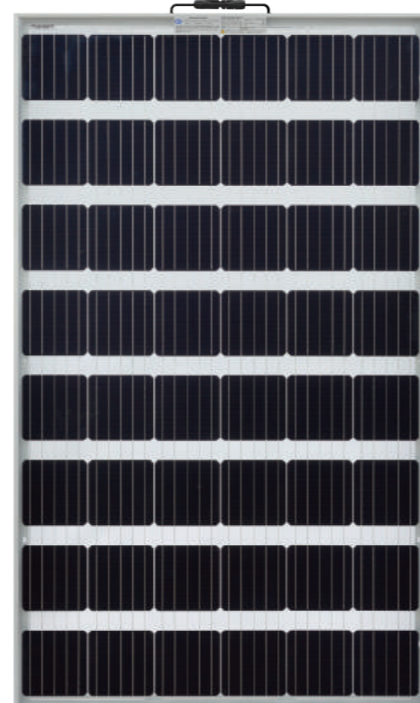
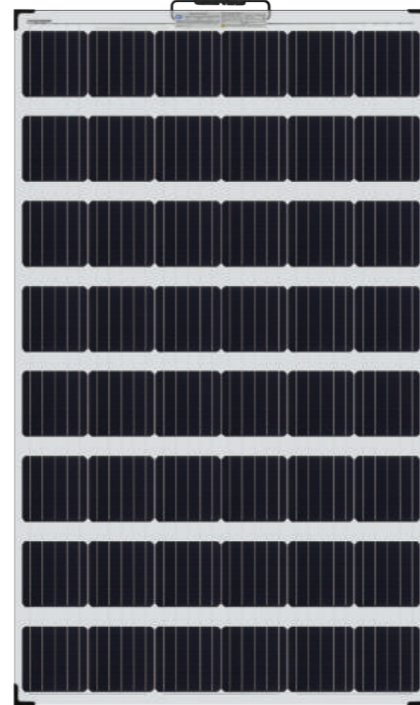
Solar Module

HT48-156M(ND) HT48-156M(ND)-F

225W-240W

[Bifacial Module]

Bifacial generating capacity ,
output 258W/264W/270W/276W(15% increase)



+ Absorb the light by both surfaces of the cells

+ 14.6%
Module Efficiency

PID PID resistant

P_{max}/m² N-Type mono technology, effectively increase the output power of unit area

2% All the modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.

10_{Ys} Products Warranty

❄️ Better temperature coefficient

☁️ Better low irradiation response provides more effective working time

+ Advanced surface treatment , lower surface reflection and 5BB cell design can reduce the series resistance and improve the module efficiency

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

0 Initial light induced degradation, effectively increase the overall power generation amount

TUV certification

30_{Ys} Warranty on power output

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

5W Positive tolerance 0/+5w guaranteed

Electrical Characteristics(STC)

Module	HT48-156M(ND) / HT48-156M(ND)-F			
Maximum Power at STC(Pmax)	225W	230W	235W	240W
Open-Circuit Voltage(Voc)	30.9V	31.1V	31.3V	31.5
Short-Circuit Current(Isc)	9.39A	9.44A	9.49A	9.54
Optimum Operating Voltage (Vmp)	25.1V	25.4V	25.8V	26.1
Optimum Operating Current(Imp)	8.98A	9.06A	9.14A	9.22
Module Efficiency	13.7%	14.0%	14.3%	14.6%
Power Tolerance	0 ~ +5W			
Maximum System Voltage	1000V DC(IEC)			
Maximum Series Fuse Rating	15A			
Operating Temperature	-40 °C to +85 °C			

* Irradiance 1000W/m² , module temperature 25, AM=1.5

NOCT

Module	HT48-156M(ND) / HT48-156M(ND)-F			
Maximum Power	165W	169W	173W	176W
Open Circuit Voltage (Voc)	28.4V	28.6V	28.8V	29.0V
Short-Circuit Current(Isc)	7.59A	7.63A	7.67A	7.71A
Optimum Operating Voltage (Vmp)	23.0V	23.3V	23.7A	23.9A
Maximum Circuit Current (Imp)	7.17A	7.24A	7.28A	7.36A
NOCT	43°C±2°C			

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

Mechanical Characteristics

Solar Cells	N type mono-crystalline cell 156.75*156.75mm 5BB		
No. of Cells	48 (6 × 8)		
Dimensions	1658mm×992mm×6.5mm / 1658mm×992mm×35mm		
Weight	25kg/22.5kg(F)		
Junction Box	IP67 , 3 diodes		
Snow pressure	5400Pa		
Wind pressure	2400Pa		
Area	1.64m ²		
Light Transmittance	28.7%		
Packaging Configuration	33pcs/box, 1584pcs/17.5m Trailer; 33pcs/box, 858pcs/40'HQ Container 26pcs/box, 1560pcs/17.5m Trailer; 30pcs/box, 840pcs/40'HQ Container (F)		

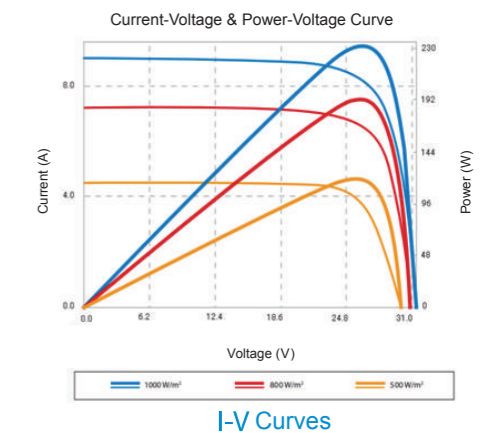
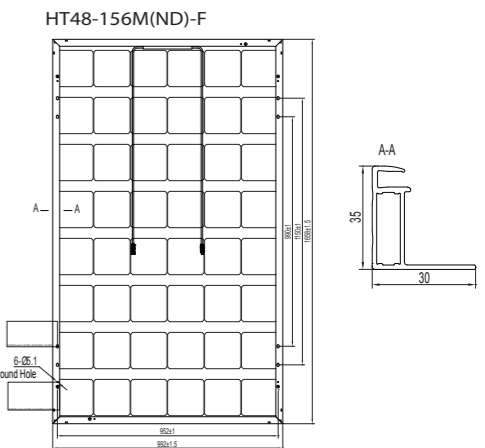
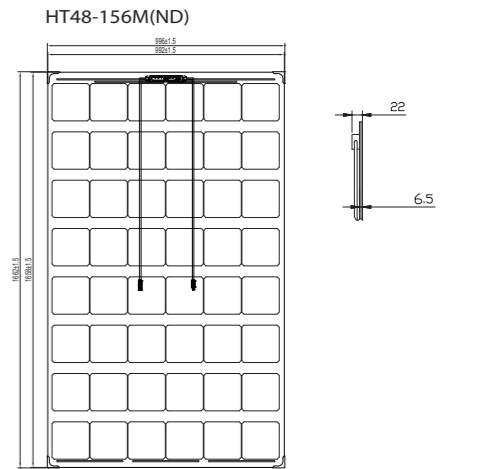
Temperature Characteristics

Temperature Coefficient of Pmax	γ (Pm)	-0.39%/K
Temperature Coefficient of Voc	β (Voc)	-0.28%/K
Temperature Coefficient of Isc	α (Isc)	0.045%/K

Warranty

10-year product warranty	
30-year warranty on power output	
Specific information is referred to the product quality guarantee	

Information Box



Shanghai Aerospace Automobile
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Factory : Lianyungang ShenZhou
New Energy Co., Ltd.