

HIGHWAY Solar Module

HT48-156M-4BB-205W/210W/215W

Reliable State-owned Enterprise
Deliver Solar Power since 1960s



Shanghai Aerospace Automobile
Electromechanical Co., Ltd

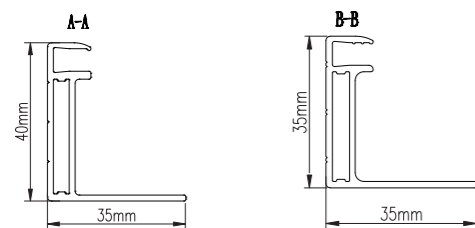
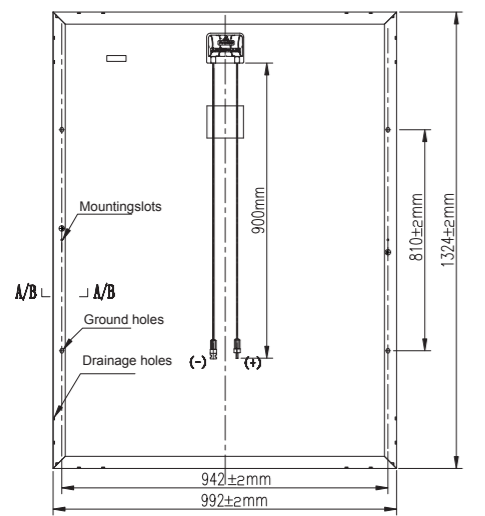
Key Features

Cell Efficiency **19.6 %** Power Output **215 W**

Warranty on Materials and Workmanship **10 YEARS**

Warranty on Power Output **25 YEARS**

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W Shorter current transmission path

Ω Less SOLAR CELL'S series resistance

PID PID (potential induced degradation) Resistant

EL All HT modules are double EL tested avoiding invisible cracks, dark cells and broken bars to ensure the performance, quality and reliability.

Auth Independent international authentication certified.

IEC HT-SAAE guarantees highest production standards: IEC 61215, IEC 61730, IEC 62716 (Ammonia corrosion) & IEC 61701 (Salt Mist Corrosion)



P Higher module's output power

5W Guaranteed positive tolerance 0/+5w ensures power output reliability

Cloud Excellent performance under low light environments (mornings, evenings and cloudy days)

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

Wind Entire module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

ISO Strict quality control, meeting the highest international standards: ISO 9001, ISO14001 and OHSAS18001



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Electrical Characteristics

STC

Module	HT48-156M-4BB-205	HT48-156M-4BB-210	HT48-156M-4BB-215
Maximum Power at STC(Pmax)	205W	210W	215W
Open-Circuit Voltage(Voc)	30.8V	31.1V	31.4V
Optimum Operating Voltage (Vmp)	25.3V	25.7V	26.1V
Short-Circuit Current(Isc)	8.66A	8.73A	8.80A
Optimum Operating Current(Imp)	8.11A	8.18A	8.25A
Module Efficiency	15.6%	16.0%	16.4%
Power Tolerance	0 ~ +5W		
Maximum System Voltage	1000V DC (IEC) / 600V DC(UL)		
Maximum Series Fuse Rating	15A		
Operating Temperature	-40 °C to + 85 °C		

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

Optional black frame or white frame module according to customer requirements

NOCT

Module	HT48-156M-4BB-205	HT48-156M-4BB-210	HT48-156M-4BB-215
Maximum Power	151W	154W	158W
Open Circuit Voltage (Voc)	26.7V	26.9V	27.2V
Maximum Power Voltage (Vmp)	23.0V	23.3V	23.7V
Short Circuit Current (Isc)	7.00A	7.05A	7.11A
Maximum Circuit Current (Imp)	6.55A	6.61A	6.66A
NOCT	45 °C ± 2 °C		

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

Mechanical Characteristics

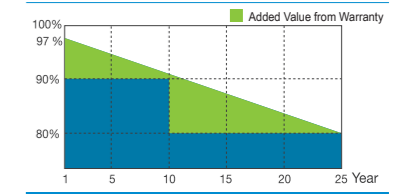
Solar Cells	Monocrystalline 156 × 156mm
No. of Cells	48 (6 × 8)
Dimensions	1324 × 992 × 40/35mm
Front Glass	14.0kg (59.5lbs) / 13.5kg (50.7lbs)
Frame	High transmission tempered glass
Junction Box	Anodized aluminium alloy
Cable	IP67 / IP65 3diodes
Connectors	4mm ² (IEC)/12AWG(UL), 1000mm
Weight	MC4/MC4 Comparable
Module Pieces per Container (40' High Cube Container)	800/896pcs (Varies depending on the size)

Temperature Characteristics

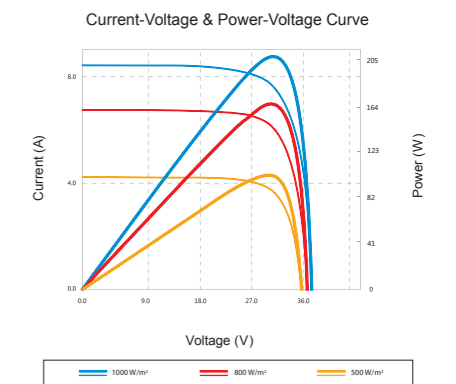
Temperature Coefficient of Pmax	γ (Pm)	-0.41%/K
Temperature Coefficient of Voc	β (Voc)	-0.34%/K
Temperature Coefficient of Isc	α (Isc)	0.049%/K

Warranty

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



I-V Curves



Information Box

* Copyright@1504A Specifications are subject to change without further notification