



Reliable State-owned Enterprise Deliver Solar Power since 1960s



**HIGHWAY**

Solar Module

**HT60-156M**

**HT60-156M(V)** \* V means 1500V module

**280W-300W**



Advanced surface treatment, less surface reflection and SBB cell design can reduce the series resistance and improve the module efficiency

18.4% Module Efficiency

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

TUV certification

Higher module's output power

Certified to withstand dynamic mechanical load 1000 Pascal

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

PID resistant

Microcrack resistant Triple EL tested, of high quality control.

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

10 Yrs Products Warranty

25 Yrs Warranty on power output

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

5W Positive tolerance 0/+5w guaranteed

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



### Electrical Characteristics

Module	HT60-156M / HT60-156M(V)				
Maximum Power at STC(Pmax)	280W	285W	290W	295W	300W
Open-Circuit Voltage(Voc)	38.6V	38.8V	39.0V	39.7V	39.9
Short-Circuit Current(Isc)	9.32A	9.39A	9.46A	9.64A	9.71
Optimum Operating Voltage (Vm)	32.4V	32.8V	33.2V	32.4V	32.8V
Optimum Operating Current (Im)	8.65A	8.70A	8.75A	9.12A	9.16A
Module Efficiency	17.2%	17.5%	17.8%	18.1%	18.4%
Power Tolerance	0 ~ +5W				
Maximum System Voltage	1000V/1500V DC(IEC)				
Maximum Series Fuse Rating	15A				
Operating Temperature	-40 °C to + 85 °C				

STC:Irradiance 1000W/m<sup>2</sup>, module temperature 25, AM=1.5

Optional black frame or white frame module according to customer requirements

### NOCT

Module	HT60-156M / HT60-156M(V)				
Maximum Power	207W	210W	214W	218W	221W
Open Circuit Voltage (Voc)	36.0V	36.2V	36.4V	37.0V	37.2V
Short Circuit Current (Isc)	7.53A	7.59A	7.64A	7.79A	7.84A
Maximum Power Voltage (Vm)	30.2V	30.5V	30.9V	30.2V	30.5V
Maximum Circuit Current (Im)	6.85A	6.88A	6.92A	7.21A	7.24A
NOCT	45 °C ± 2°C				

NOCT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1 m/s

### Mechanical Characteristics

Solar Cells	Monocrystalline 156.75 x 156.75mm		
No.of Cells	60 (6 x 10)		
Dimensions	1640mm×992mm×35mm(64.6×39×1.4in)		
Weight	18.5kg (40.8lbs)		
Front Glass	High transmission tempered glass		
Frame	Anodized aluminum alloy		
Junction Box	IP67		
Cable	4mm <sup>2</sup> (IEC), 900mm		
Connectors	MC4/MC4 Compatible		
Packaging Configuration	30pcs/box, 840pcs/40'HQ Container		

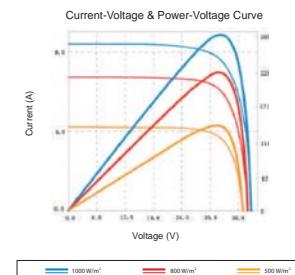
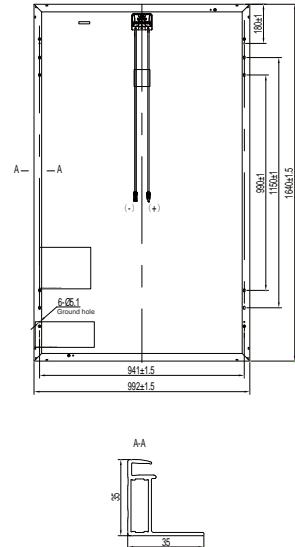
### Temperature Characteristics

Temperature Coefficient of Pmax	$\gamma$ (Pm)	-0.39%/K
Temperature Coefficient of Voc	$\beta$ (Voc)	-0.29%/K
Temperature Coefficient of Isc	$\alpha$ (Isc)	0.049%/K

### Warranty

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

### Information Box



**I-V Curves**

Shanghai Aerospace Automobile Electromechanical Co., Ltd.  
website: www.ht-saae.com

Factory: Lianyungang ShenZhou New Energy Co., Ltd.