

HIGHWAY

Solar Module

HT48-156M

HT48-156M(V) * V means 1500V module

225W-240W



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



18.3%
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_{Ys} Products Warranty



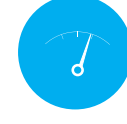
25_{Ys} Warranty on power output



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	HT48-156M / HT48-156M(V)			
Maximum Power at STC(P _{max})	225W	230W	235W	240W
Open-Circuit Voltage(V _{oc})	31.0V	31.4V	31.5V	31.8V
Short-Circuit Current(I _{sc})	9.29A	9.35A	9.64A	9.72A
Optimum Operating Voltage (V _{mp})	25.9V	26.3V	25.8V	26.2V
Optimum Operating Current(I _{mp})	8.69A	8.75A	9.15A	9.19A
Module Efficiency	17.1%	17.5%	17.9%	18.3%
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 ² , module temperature 25, AM=1.5				
Optional black frame or white frame module according to customer requirements				

NOCT

Module	HT48-156M / HT48-156M(V)			
Maximum Power	166W	170W	173W	177W
Open Circuit Voltage (V _{oc})	28.9V	29.1V	29.3V	29.6V
Short Circuit Current (I _{sc})	7.50A	7.55A	7.79A	7.85A
Maximum Power Voltage (V _{mp})	24.0V	24.4V	24.0V	24.3V
Maximum Circuit Current (I _{mp})	6.90A	6.95A	7.24A	7.28A
NOCT	45 °C ± 2 °C			
NOCT: Irradiance 800W/m ² , ambient temperature 20 °C, wind speed 1 m/s				

Mechanical Characteristics

Solar Cells	Monocrystalline 156.75 × 156.75mm
No. of Cells	48 (6 × 8)
Dimensions	1324 × 992 × 35mm (52.1 × 39.1 × 1.38in)
Weight	14.5kg (32.0lbs)
Front Glass	High transmission tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP67
Cable	4mm ² (IEC), 900mm
Connectors	MC4/MC4 Compatible
Packaging Configuration	30pcs/box, 1020pcs/40'HQ Container

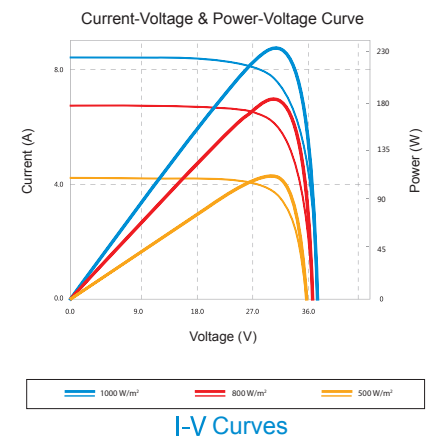
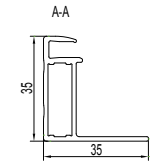
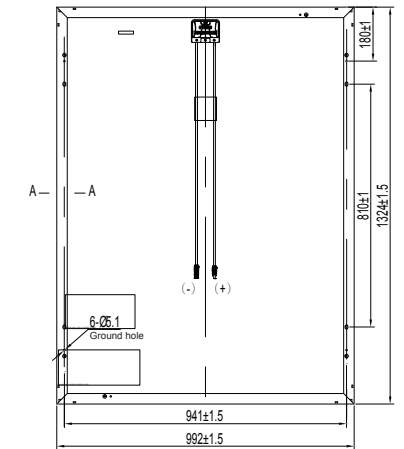
Temperature Characteristics

Temperature Coefficient of P _{max}	γ (P _m)	-0.39%/K
Temperature Coefficient of V _{oc}	β (V _{oc})	-0.29%/K
Temperature Coefficient of I _{sc}	α (I _{sc})	0.049%/K

Warranty

10-year product 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.