



## AS-5M Black Module

Amerisolar's photovoltaic modules are designed for large electrical power requirements. With a 30-year warranty, AS-5M black module offers higher-powered, more reliable performance for both on-grid and off-grid solar projects.

### Key Features

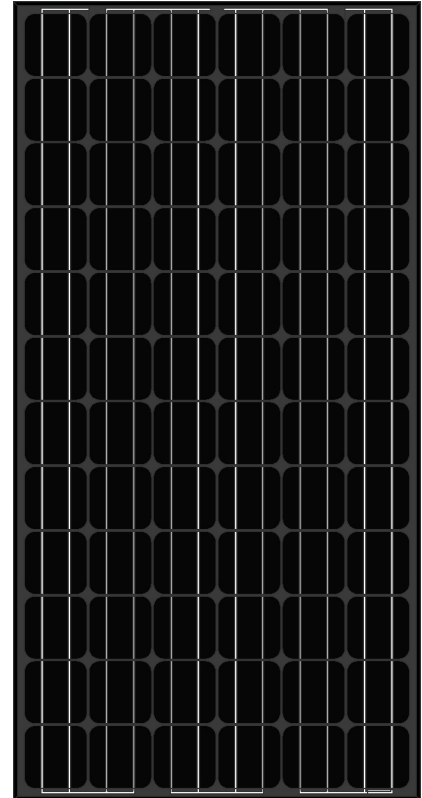
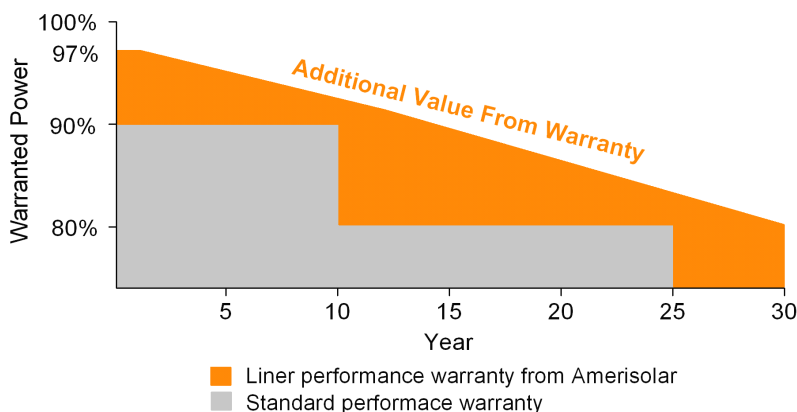
- Aesthetically appealing design with black backsheet and frame.
- High module conversion efficiency up to 16.45% through superior manufacturing technology.
- Low degradation and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- Positive power tolerance of 0 ~ +3 %.
- High ammonia and salt mist resistance.

### Quality Certificates

- IEC61215, IEC61730, IEC62716, IEC61701, UL1703, CE, MCS, CEC, Israel Electric, Kemco
- ISO9001:2008: Quality management system
- ISO14001:2004: Environmental management system
- OHSAS18001:2007: Occupational health and safety management system

### Special Warranties

- 12 year limited product warranty.
- Limited power warranty: 12 years 91.2% of the nominal power output, 30 years 80.6% of the nominal power output.



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## Electrical Characteristics

Electrical parameters at STC						
Nominal Power ( $P_{max}$ )	185W	190W	195W	200W	205W	210W
Open Circuit Voltage ( $V_{OC}$ )	44.8V	45.0V	45.1V	45.2V	45.4V	45.6V
Short Circuit Current ( $I_{SC}$ )	5.45A	5.54A	5.63A	5.72A	5.81A	5.90A
Voltage at Nominal Power ( $V_{mp}$ )	36.3V	36.5V	36.7V	36.9V	37.1V	37.3V
Current at Nominal Power ( $I_{mp}$ )	5.10A	5.21A	5.32A	5.43A	5.53A	5.64A
Module Efficiency (%)	14.49	14.88	15.27	15.67	16.06	16.45

STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25°C, AM1.5

Electrical parameters at NOCT						
Nominal Power ( $P_{max}$ )	135W	139W	142W	146W	150W	153W
Open Circuit Voltage ( $V_{OC}$ )	41.2V	41.4V	41.5V	41.6V	41.8V	42.0V
Short Circuit Current ( $I_{SC}$ )	4.41A	4.49A	4.56A	4.63A	4.71A	4.78A
Voltage at Nominal Power ( $V_{mp}$ )	33.0V	33.2V	33.4V	33.6V	33.8V	33.9V
Current at Nominal Power ( $I_{mp}$ )	4.10A	4.19A	4.26A	4.35A	4.44A	4.52A

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

## Mechanical Characteristics

Cell type	Monocrystalline 125x125mm
Number of cells	72 (6x12)
Module dimension	1580x808x35mm
Weight	15.5kg
Front cover	3.2mm low-iron tempered glass
Frame	Anodized aluminum alloy
Junction box	IP67, 3 diodes
Cable	4mm <sup>2</sup> , 900mm
Connector	MC4 or MC4 compatible
Standard packaging	28pcs/pallet
Module quantity per container	336pcs/20'GP, 784pcs/40'GP

## Temperature Characteristics

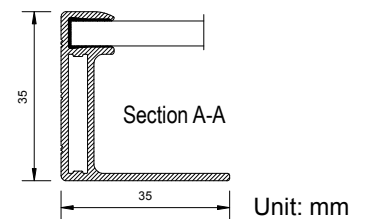
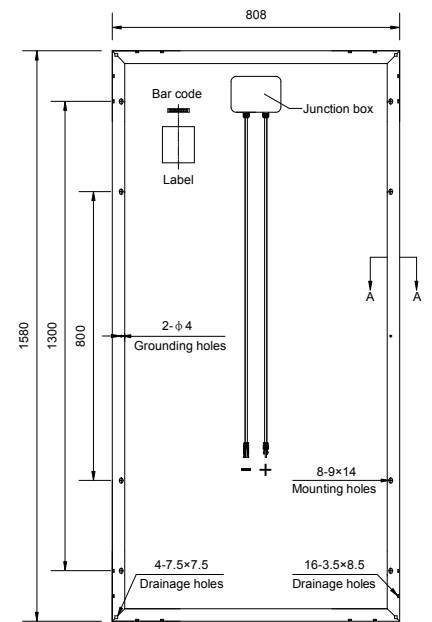
Nominal Operating Cell Temperature (NOCT)	45°C±2°C
Temperature Coefficients of $P_{max}$	-0.43%/°C
Temperature Coefficients of $V_{OC}$	-0.33%/°C
Temperature Coefficients of $I_{SC}$	0.056%/°C

## Maximum Ratings

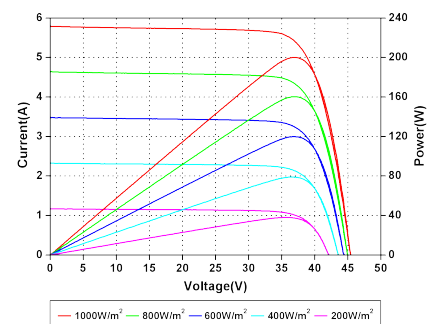
Operating Temperature	-40°C to +85°C
Maximum System Voltage	1000V DC
Maximum Series Fuse Rating	10A

Specifications in this datasheet are subject to change without prior notice.

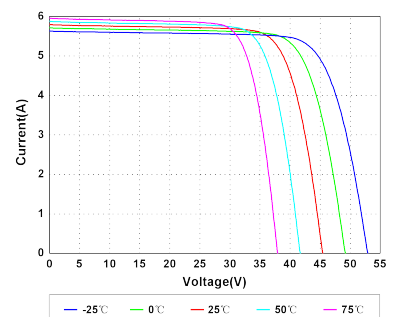
## Drawings



## I-V Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures

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