



New Energy

New World

## Worldwide Energy and Manufacturing USA Co., Limited

### AS-6M18

Amerisolar's photovoltaic modules are designed for large electrical power requirements. With a 30-year warranty, AS-6M18 offers higher-powered, more reliable performance for both on-grid and off-grid solar projects.

#### Key Features

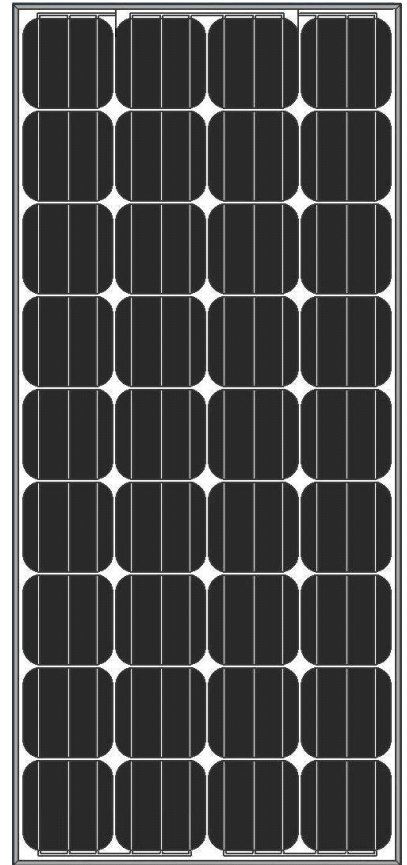
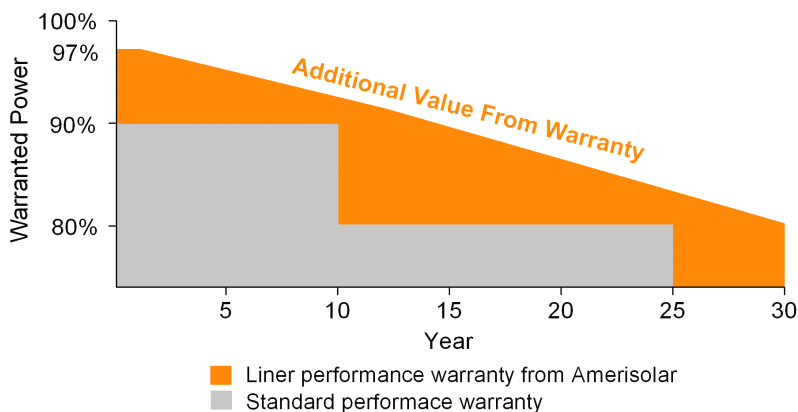
- High module conversion efficiency up to 16.22% through superior manufacturing technology.
- Low degradation and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa.
- Positive power tolerance of 0 ~ +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.



Passionately  
committed to  
delivering innovative  
energy solution

[www.weamerisolar.com](http://www.weamerisolar.com)

## Electrical Characteristics

| Electrical parameters at STC          |       |       |       |       |       |       |
|---------------------------------------|-------|-------|-------|-------|-------|-------|
| Nominal Power ( $P_{max}$ )           | 135W  | 140W  | 145W  | 150W  | 155W  | 160W  |
| Open Circuit Voltage ( $V_{OC}$ )     | 21.8V | 22.0V | 22.2V | 22.4V | 22.6V | 22.8V |
| Short Circuit Current ( $I_{SC}$ )    | 8.30A | 8.45A | 8.61A | 8.75A | 8.90A | 9.05A |
| Voltage at Nominal Power ( $V_{mp}$ ) | 17.4V | 17.6V | 17.8V | 18.0V | 18.2V | 18.4V |
| Current at Nominal Power ( $I_{mp}$ ) | 7.76A | 7.95A | 8.15A | 8.33A | 8.52A | 8.70A |
| Module Efficiency (%)                 | 13.69 | 14.20 | 14.70 | 15.21 | 15.72 | 16.22 |

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

| Electrical parameters at NOCT         |       |       |       |       |       |       |
|---------------------------------------|-------|-------|-------|-------|-------|-------|
| Nominal Power ( $P_{max}$ )           | 99W   | 102W  | 106W  | 110W  | 113W  | 117W  |
| Open Circuit Voltage ( $V_{OC}$ )     | 20.1V | 20.2V | 20.4V | 20.6V | 20.8V | 21.0V |
| Short Circuit Current ( $I_{SC}$ )    | 6.72A | 6.84A | 6.97A | 7.09A | 7.21A | 7.33A |
| Voltage at Nominal Power ( $V_{mp}$ ) | 15.8V | 16.0V | 16.2V | 16.4V | 16.6V | 16.8V |
| Current at Nominal Power ( $I_{mp}$ ) | 6.27A | 6.38A | 6.55A | 6.71A | 6.81A | 6.97A |

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

## Mechanical Characteristics

|                               |                               |
|-------------------------------|-------------------------------|
| Cell type                     | Monocrystalline 156x156mm     |
| Number of cells               | 36(4x9)                       |
| Module dimension              | 1483x665x35mm                 |
| Weight                        | 12kg                          |
| Front cover                   | 3.2mm low-iron tempered glass |
| Frame                         | Anodized aluminum alloy       |
| Junction box                  | IP65, 2 diodes                |
| Cable                         | 4mm <sup>2</sup> , 900mm      |
| Connector                     | MC4 or MC4 compatible         |
| Standard packaging            | 28pcs/pallet                  |
| Module quantity per container | 504pcs/20'GP                  |

## Temperature Characteristics

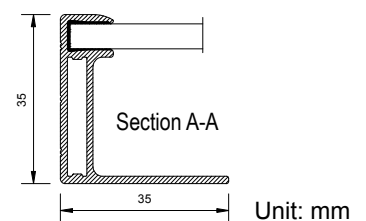
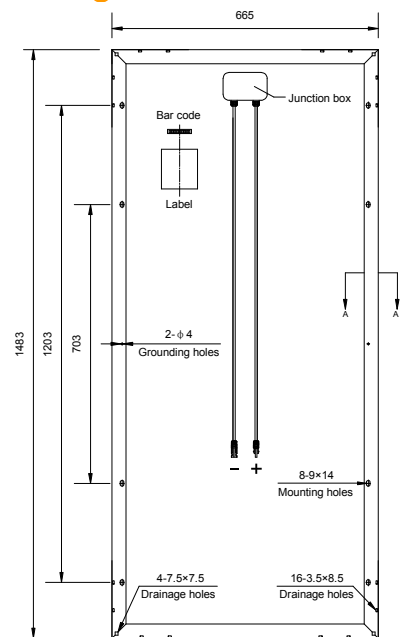
|   |           |
|---|-----------|
| Nominal Operating Cell Temperature (NOCT) | 45°C±2°C  |
| Temperature Coefficients of $P_{max}$     | -0.43%/°C |
| Temperature Coefficients of $V_{OC}$      | -0.33%/°C |
| Temperature Coefficients of $I_{SC}$      | 0.056%/°C |

## Maximum Ratings

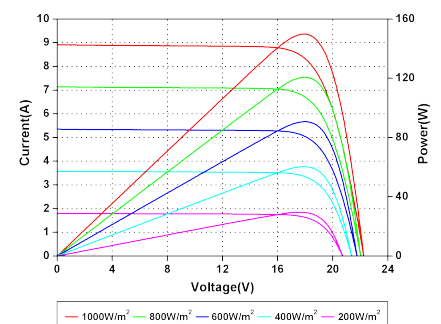
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|----------------------------|----------------|
| Operating Temperature      | -40°C to +85°C |
| Maximum System Voltage     | 1000V DC       |
| Maximum Series Fuse Rating | 15A            |

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

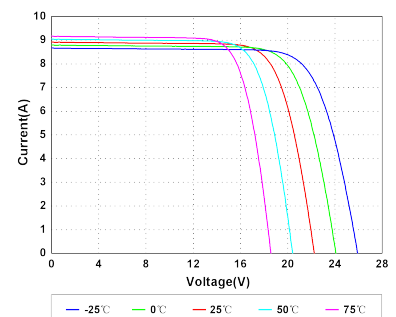
## Drawings



## I-V Curves



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures

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