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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**AE Solar  
AEXXHP6-60 280-305W (AU)  
AE305HP6-60**

Also available on the web at  
[EnergyPal.com/ae-solar-solar-panels/ae305hp6-60](http://EnergyPal.com/ae-solar-solar-panels/ae305hp6-60)

# AEXXXHP6-60

AE SOLAR High Efficiency Polycrystalline Half-cut Cell Solar Module  
**280-305W**



### Higher Module Efficiency

Brings 5-10W power gain due to half-cut production system



### More Energy Yield

Lower NMOT and better temperature coefficient by lower cell series resistance, helps boost energy yield



### Lower Operating Temperature, More Reliable

Lower operating temperature and hot spot temperature during the sunny day, making the module prevail during the sunny days



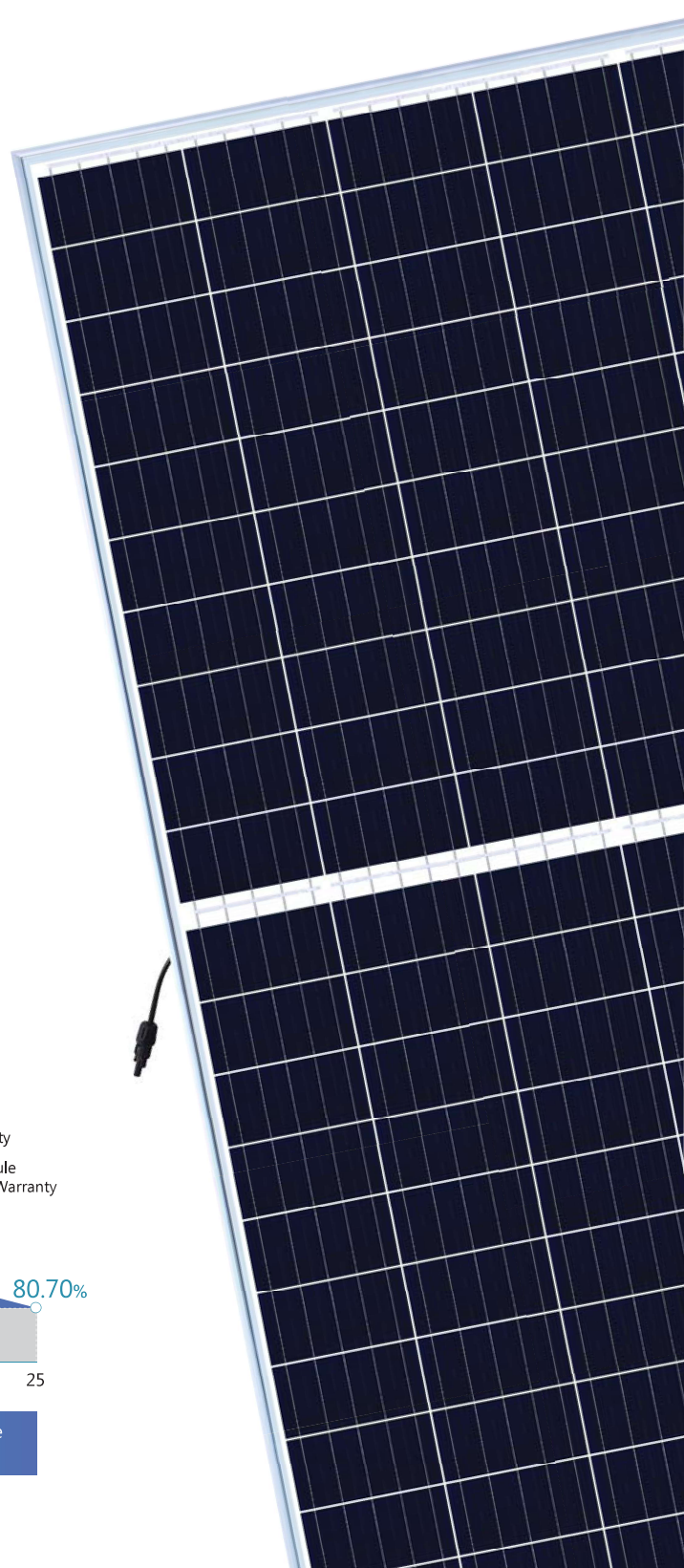
### Better Shading Tolerance

Thanks to Paralleling circuit design, more power generated under shading condition and during morning & evening time

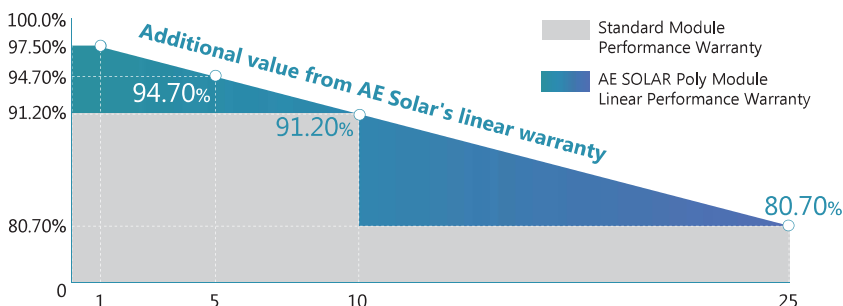


### Better Micro Crack Resistance

Minimize the impact by micro crack by limiting cell damage and potentially extending area by half-cut module architecture



## LINEAR PERFORMANCE WARRANTY



**12years** Product Material & Workmanship

**25years** Linear Performance Warranty

# AE SOLAR High Efficiency Polycrystalline Half-cut Cell Solar Module

| <b>ELECTRICAL DATA @ STC*</b> |     | AE280HP6-60 | AE285HP6-60 | AE290HP6-60 | AE295HP6-60 | AE300HP6-60 | AE305HP6-60 |
|-------------------------------|-----|-------------|-------------|-------------|-------------|-------------|-------------|
| Peak Power (Pmax)             | (W) | 280         | 285         | 290         | 295         | 300         | 305         |
| Maximum Power Voltage (Vmp)   | (V) | 32.15       | 32.43       | 32.70       | 33.00       | 33.30       | 33.56       |
| Maximum Power Current (Imp)   | (A) | 8.71        | 8.79        | 8.87        | 8.94        | 9.01        | 9.09        |
| Open-circuit Voltage (Voc)    | (V) | 38.42       | 38.69       | 38.98       | 39.25       | 39.53       | 39.81       |
| Short-circuit Current (Isc)   | (A) | 9.27        | 9.35        | 9.42        | 9.50        | 9.57        | 9.65        |
| Module Efficiency             | (%) | 16.82       | 17.12       | 17.42       | 17.72       | 18.02       | 18.32       |
| Operating Temperature         |     | -40°C~+85°C |             |             |             |             |             |
| Maximum System Voltage        |     | 1000V       |             |             |             |             |             |
| Maximum Series Fuse Rating    |     | 15A         |             |             |             |             |             |
| Application Class             |     | Class A     |             |             |             |             |             |
| Power Tolerance               |     | 0~+3%       |             |             |             |             |             |

\*STC (Standard Test Condition): Irradiance 1000W/ m<sup>2</sup>, Module Temperature 25°C, AM 1.5

| <b>ELECTRICAL DATA @ NMOT*</b> |     | AE280HP6-60 | AE285HP6-60 | AE290HP6-60 | AE295HP6-60 | AE300HP6-60 | AE305HP6-60 |
|--------------------------------|-----|-------------|-------------|-------------|-------------|-------------|-------------|
| Peak Power (Pmax)              | (W) | 207         | 211         | 215         | 219         | 222         | 226         |
| MPP Voltage (Vmp)              | (V) | 29.68       | 29.93       | 30.18       | 30.46       | 30.74       | 30.98       |
| MPP Current (Imp)              | (A) | 6.99        | 7.05        | 7.12        | 7.18        | 7.23        | 7.30        |
| Open Circuit Voltage (Voc)     | (V) | 36.09       | 36.35       | 36.62       | 36.92       | 37.18       | 37.45       |
| Short Circuit Current (Isc)    | (A) | 7.51        | 7.57        | 7.63        | 7.67        | 7.72        | 7.79        |

\*Under Nominal Module Operating Temperature (NMOT), Irradiance of 800W/ m<sup>2</sup>, Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

| <b>TEMPERATURE CHARACTERISTICS</b> |  |           |
|------------------------------------|--|-----------|
| Temperature coefficient of Pmax    |  | -0.39%/°C |
| Temperature coefficient of Voc     |  | -0.33%/°C |
| Temperature coefficient of Isc     |  | 0.05%/°C  |
| NMOT                               |  | 42±3°C    |

| <b>MECHANICAL DATA</b> |  |                                  |
|------------------------|--|----------------------------------|
| Cell Type              |  | Poly-Crystalline, 156.75×78.38mm |
| Cell Arrangement       |  | 120pcs (2×(6×10))                |
| Dimension (L×W×H)      |  | 1680×991×35mm                    |
| Weight                 |  | 19kg                             |
| Front Cover            |  | 3.2mm Tempered Glass             |
| Frame                  |  | Anodized Aluminium Alloy         |
| Junction Box           |  | IP68, 3 Bypass Diodes            |
| Cable Type             |  | 4mm <sup>2</sup>                 |
| Length of Cable        |  | 1160mm                           |
| Connector              |  | Jiaming:PV-JM601                 |

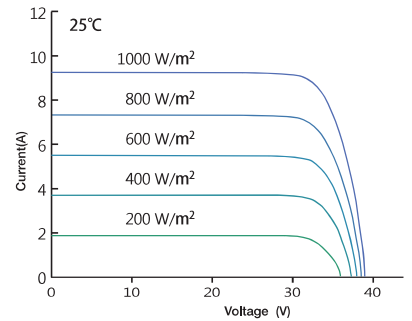
| <b>PACKING MANNER</b> |  |      |
|-----------------------|--|------|
| Packing Type          |  | 40HQ |
| Piece/Pallet          |  | 30   |
| Pallet/Container      |  | 26   |
| Piece/Container       |  | 780  |

\*The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to ongoing innovation, R&D enhancement, AE ALTERNATIVE ENERGY GmbH Reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

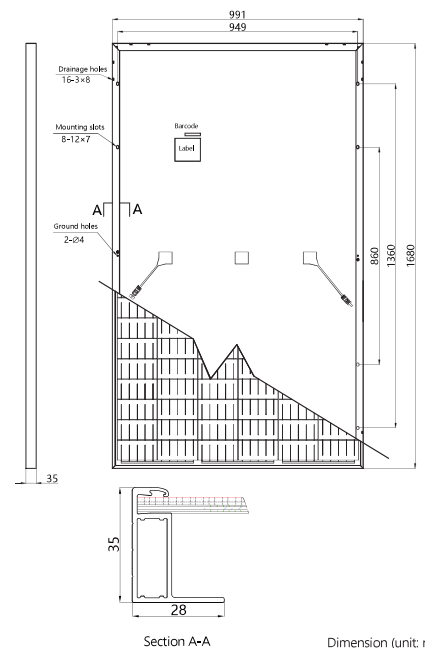
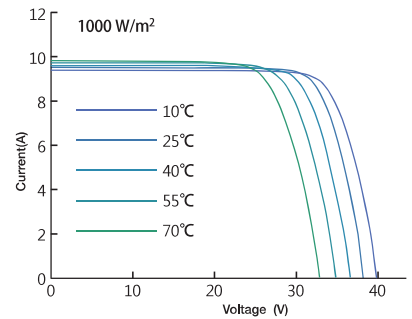
\*Power measurement tolerance: ±3%  
\*Voc measurement tolerance: ±3%  
\*Isc measurement tolerance: ±3%

\*Modules Shipped to AU are made in China

## Current-Voltage Curve under different irradiance



## Current-Voltage Curve under different working temperatures



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