

Inspiring green-energy since 2003



# AE HALF LARGE CELL MONOCRYSTALLINE PV MODULES AE HM6L-72 Series 400W-415W

tested by  **Fraunhofer**  
CSP

**144**  
CELLS

  
**PID**  
RESISTANT

  
**SALT CORROSION**  
RESISTANT

  
**SAND**  
RESISTANT

$\frac{NH_3}{S}$   
**AMMONIA**  
RESISTANT

  
**HIGHLY STABLE**  
AND TOUGH

## TEMPERATURE

Hot spot temperature lower than 85°C  
The IEC61215 test shows that with a zero percentage, a small and a 100 percentage of shaded area, respectively hot spots will not exceed 85°C, which is the maximum operating condition.

## SAFETY

Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module, preventing fire risks caused by hot spots.

## GERMAN QUALITY

AE Solar photovoltaic modules are produced using high quality materials, automated robotic lines, German technology and standards.

## PERFORMANCE GUARANTEE

AE Solar assures high investment, security and warranty claims by providing linear performance guarantee of 30 years and 12 years of product warranty.

## RELIABILITY

Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.

## HIGH RETURNS

This new technology prevents instant falls in the module output, thus increasing the performance ratio up to 30% and return for all types of installations.

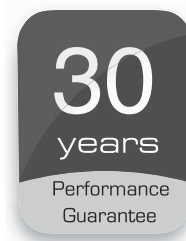
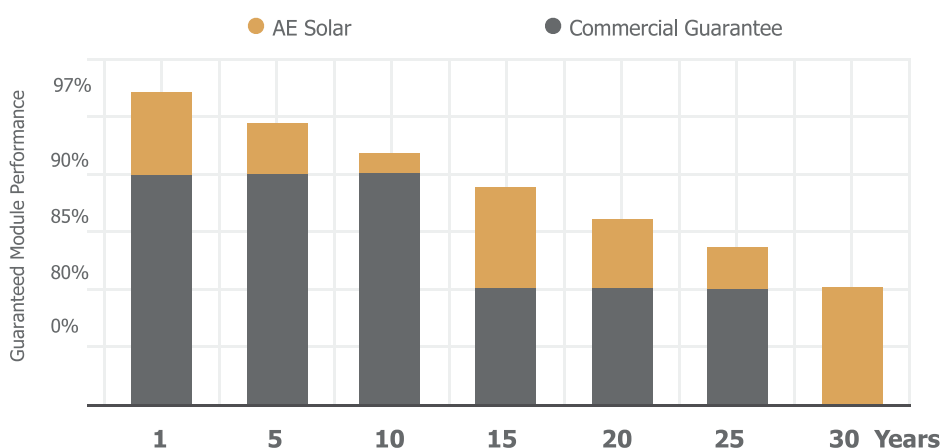
## PLUS-SORTING

Higher yield due to plus-sorting from 0 up to +5 Wp guarantees the high system efficiency and yield stability.

## CERTIFICATES

Lining with international standards, AE Solar Photovoltaic modules are tested and certified under extreme stress conditions and it can bear harsh environment influences.

## OUR PERFORMANCE GUARANTEE



Deutsche  
Qualität  
Garantiert

# TECHNICAL DATA

AE HM6L-72 Series 400W-415W

## SPECIFICATIONS

|                                 |           | AE400HM6L-72 | AE405HM6L-72 | AE410HM6L-72 | AE415HM6L-72 |
|---------------------------------|-----------|--------------|--------------|--------------|--------------|
| Nominal Max. Power              | Pmax (Wp) | 400          | 405          | 410          | 415          |
| Maximum power voltage           | Vmp(V)    | 41.32        | 41.59        | 41.85        | 42.09        |
| Maximum power current           | Imp (A)   | 9.68         | 9.74         | 9.80         | 9.86         |
| Open-circuit voltage            | Voc(V)    | 49.25        | 49.53        | 49.80        | 50.51        |
| Short-circuit current           | Isc (A)   | 10.24        | 10.31        | 10.38        | 10.44        |
| Module efficiency               | (%)       | 19.93        | 20.18        | 20.43        | 20.68        |
| Operating temperature           | (°C)      | -40 to +85   |              |              |              |
| Maximum system voltage DC       | V (IEC)   | 1500         |              |              |              |
| Maximum series fuse rating      | (A)       | 15           |              |              |              |
| Power tolerance                 | (%)       | 0/+4.99      |              |              |              |
| Temp. coefficients of Pmax      | (%/°C)    | -0.352       |              |              |              |
| Temp. coefficients of Voc       | (%/°C)    | -0.277       |              |              |              |
| Temp. coefficients of Isc       | (%/°C)    | 0.040        |              |              |              |
| Nom. Operating cell temp.(NOCT) | (°C)      | 44±2         |              |              |              |

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25°C.

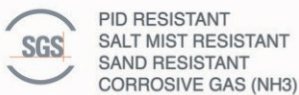
## MATERIAL CHARACTERISTICS

|                 |  |
|-----------------|--|
| Cell type       | PERC Mono-crystalline 158.75 x 79.38mm             |
| No. of cells    | 144 (72 Full cells)                                |
| Dimensions      | 2015 x 996 x 35 MM                                 |
| Weight          | 21 KG  |
| Junction box    | IP 68 rated (3 bypass diodes)                      |
| Output cable    | 1 x 4.0mm <sup>2</sup> 350 mm length or customised |
| Connector type  | MC4 / MC4 compatible                               |
| Hail resistance | Max. Ø 25 mm, at 23 m/s                            |
| Wind load       | 2400 Pa / 244 kg/m <sup>2</sup>                    |
| Mechanical load | 5400 Pa / 550 kg/m <sup>2</sup>                    |

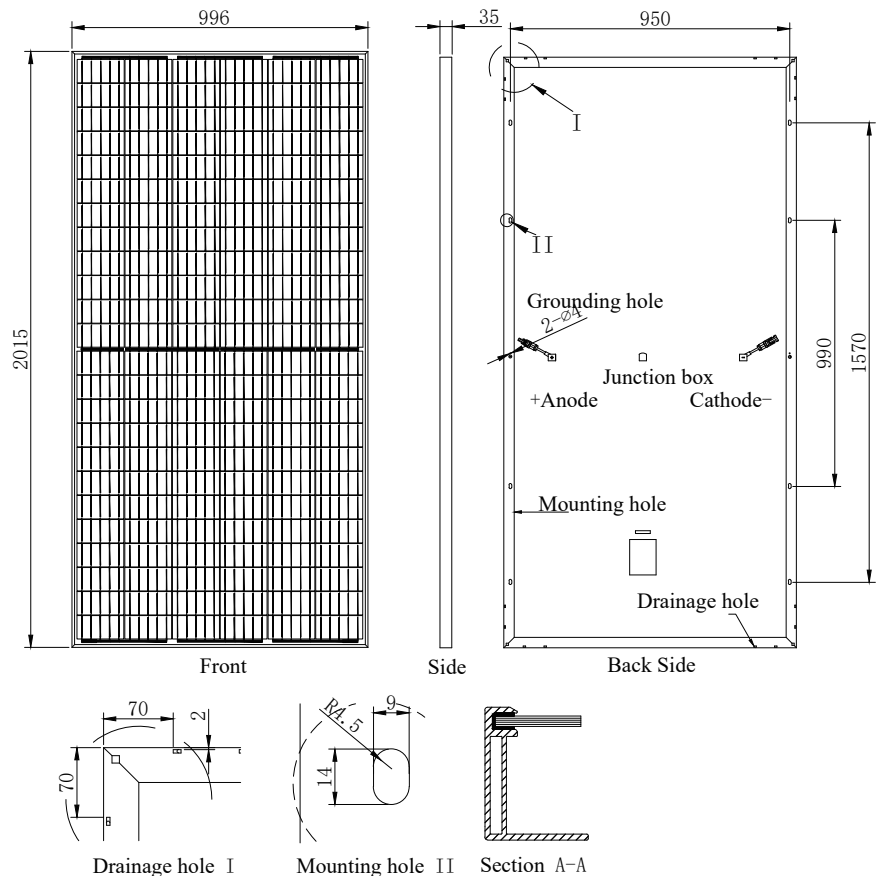
## PACKAGING INFORMATION

|                       |                        |
|-----------------------|------------------------|
| Packing configuration | 64 pcs / double pallet |
| Loading Capacity      | 704 pcs / 40HQ         |
| Size / pallet (mm)    | 2045 x 1120 x 2395     |
| Weight                | 1495 kg / pallet       |

## CERTIFICATES



## DIMENSIONS



AE-DSH2019 V.002  
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