



Inspiring green-energy since 2003

# AE HALF CELL LARGE IEC 1500VDC MONOCRYSTALLINE PV MODULES AE HM6L-72 Series 440W-450W

tested by  **Fraunhofer**  
CSP

**72**

**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

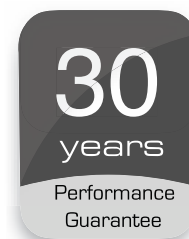
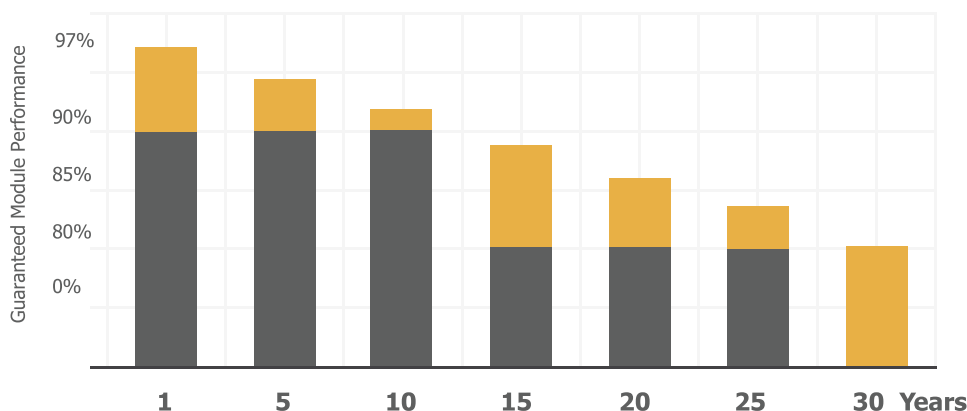
Higher yield due to plus-sorting from 0 up to +5 Wp guarantees the high system efficiency and yield stability.

## 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

● AE Solar PowerPlus ● Commercial Guarantee



Deutsche  
Qualität  
Garantiert

# TECHNICAL DATA

AE HALF CELL Series 440W-450W

## SPECIFICATIONS

		AE440HM6L-72	AE445HM6L-72	AE450HM6L-72
Nominal Max. Power	Pmax (Wp)	440	445	450
Maximum power voltage	Vmp(V)	41.0	41.2	41.4
Maximum power current	Imp (A)	10.74	10.80	10.87
Open-circuit voltage	Voc(V)	49.6	49.8	50.0
Short-circuit current	Isc (A)	11.33	11.46	11.54
Module efficiency	(%)	19.8	20	20.2
Operating temperature	(°C)		-40 to +85	
Maximum system voltage DC	V (IEC)		1500	
Maximum series fuse rating	(A)		20	
Power tolerance	(%)		0/+4.99	
Temp. coefficients of Pmax	(%/°C)		-0.370	
Temp. coefficients of Voc	(%/°C)		-0.286	
Temp. coefficients of Isc	(%/°C)		0.057	
Nom. Operating cell temp.(NOCT)	(°C)		45±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	Mono-crystalline 166*83 mm
No. of cells	144 Cells (72 Full Cells)
Dimensions	2115*1052*40
Weight	24KG
Junction box	IP 68 rated (3 bypass diodes)
Output cable	1 x 4.0mm <sup>2</sup> , 350 mm length or customised
Connector type	MC 4 / MC 4 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>

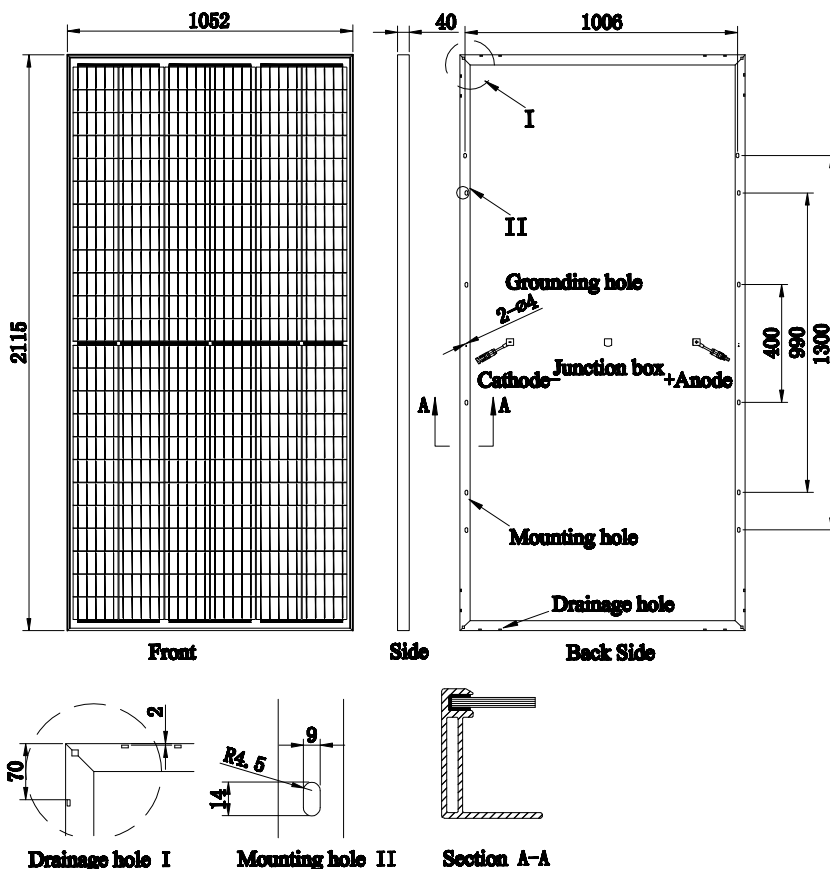
## PACKAGING INFORMATION

Packing configuration	56 pcs / double pallet
Loading Capacity	616 pcs / 40HQ
Size / pallet (mm)	2150x1140x2344
Weight	1466kg /double pallet

## CERTIFICATES



## DIMENSIONS



AE-DSH2019 V.002

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