

AE SOLAR
alternative energy

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

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.

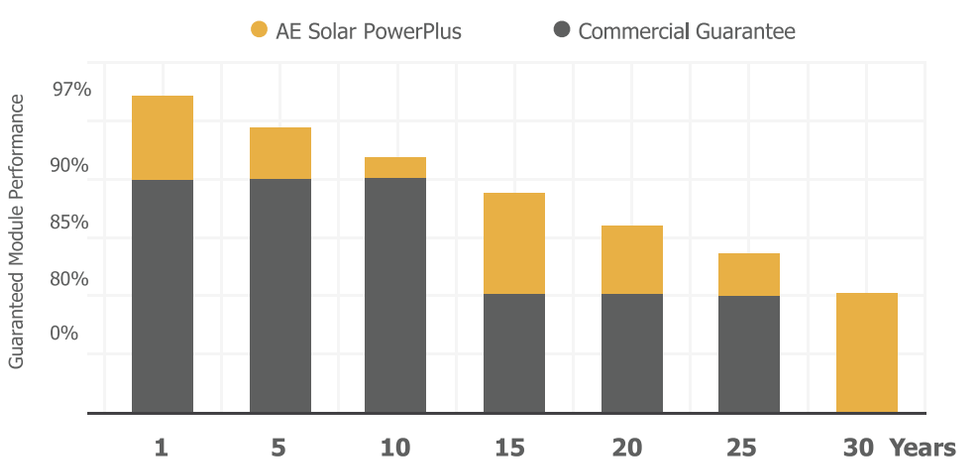
RELIABILITY
Bypass diodes prevent cells mismatching at shaded areas. The lower temperature of hot-spot free modules will eliminate potential cause for back sheet degradation, hence enhancing reliability for longer term.

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



30 years Performance Guarantee

12 years Product Warranty

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/m² 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 4.0mm², 350 mm length or customised
Connector type	MC 4 / MC 4 compatible
Hail resistance	Max. ∅ 25 mm, at 23 m/s
Wind load	2400 Pa / 244 kg/m²
Mechanical load	5400 Pa / 550 kg/m²

PACKAGING INFORMATION

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

CERTIFICATES

SGS TÜV SAAR — IEC 61215, IEC 61730, PERIODICAL INSPECTION

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SGS — PID RESISTANT, SALT MIST RESISTANT, SAND RESISTANT, CORROSIVE GAS (NH3)

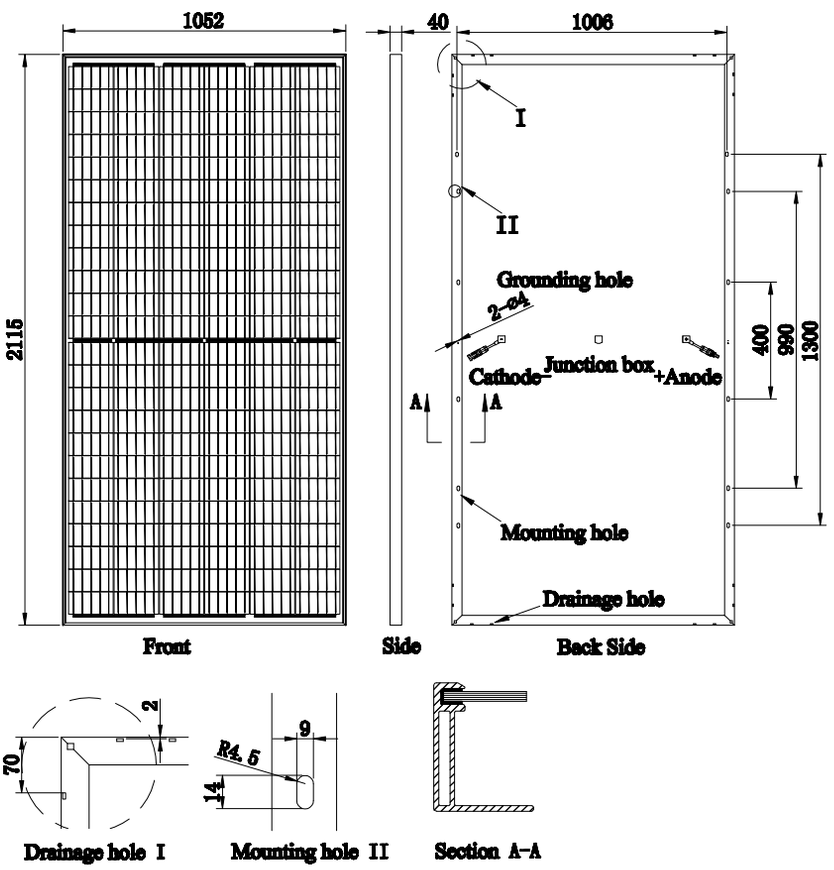
ISO14001

CE

CHUBB INSURANCE

TÜV SÜD

DIMENSIONS



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