

Inspiring green-energy since 2003



## AE HALF LARGE CELL MONOCRYSTALLINE PV MODULES AE MD-1 44 Series 530W-550W

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.

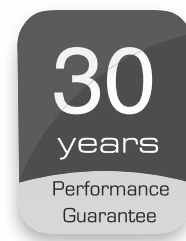
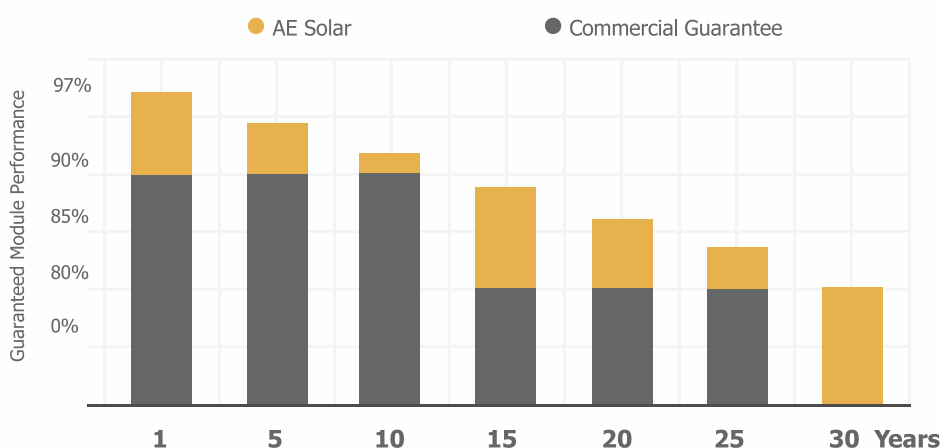
### PLUS-SORTING

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 MD-144 Series 530W-550W

## SPECIFICATIONS

		AE530MD-144	AE535MD-144	AE540MD-144	AE545MD-144	AE550MD-144
Nominal Max. Power	P <sub>max</sub> (Wp)	530	535	540	545	550
Maximum power voltage	V <sub>mp</sub> (V)	41.70	41.93	42.15	42.38	42.57
Maximum power current	I <sub>mp</sub> (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V <sub>oc</sub> (V)	49.65	49.78	49.90	50.01	51.44
Short-circuit current	I <sub>sc</sub> (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	(%)	20.53	20.73	20.92	21.12	21.31
Operating temperature	(°C)	-40 to +85				
Maximum system voltage DC	V (IEC)	1500				
Maximum series fuse rating	(A)	25				
Power tolerance	(%)	0 ~ +5				
Temp. coefficients of P <sub>max</sub>	(%/°C)	-0.350				
Temp. coefficients of V <sub>oc</sub>	(%/°C)	-0.275				
Temp. coefficients of I <sub>sc</sub>	(%/°C)	0.045				
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.

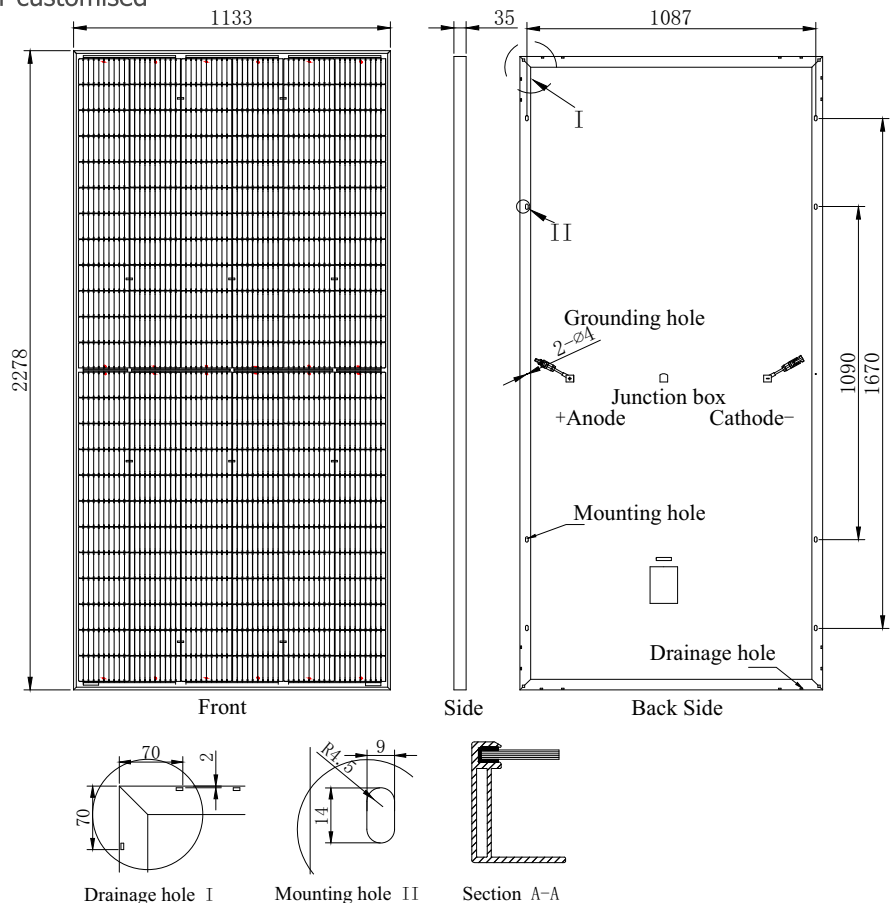
## MATERIAL CHARACTERISTICS

Cell type	Mono-crystalline 182 X 91 mm
No. of cells	144 Cells (72 Full Cells)
Dimensions	2278 X 1133 X 35 mm
Weight	27KG
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>

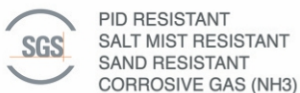
## PACKAGING INFORMATION

Packing configuration	62 pcs / double pallet
Loading Capacity	620 pcs / 40HQ
Size / pallet (mm)	2310x1140x2490 mm
Weight	1804kg /double pallet

## DIMENSIONS



## CERTIFICATES



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