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**Web: [EnergyPal.com/solar](http://EnergyPal.com/solar)**

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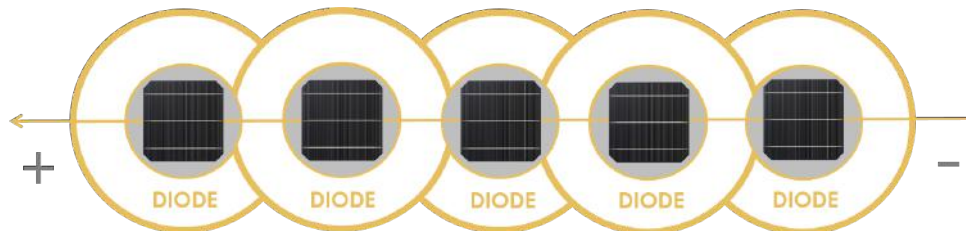
# **EnergyPal**

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

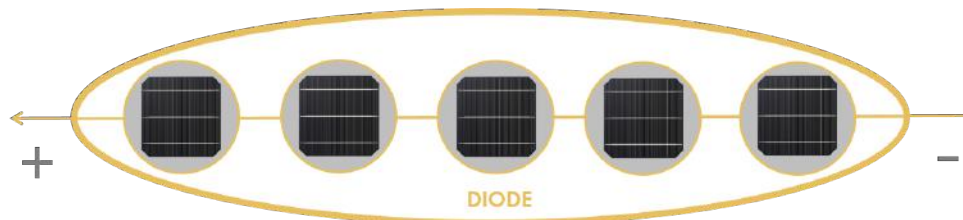
**AE Solar  
AE SMP6-72\_315-340  
AE330SM P6-72**

Also available on the web at  
[EnergyPal.com/ae-solar-solar-panels/ae330sm-p6-72](http://EnergyPal.com/ae-solar-solar-panels/ae330sm-p6-72)

## NEW AE SOLAR MODULE



## STANDARD MODULE



AE Smart Module technology protects each cell by an individual bypass diode. When the current of a single cell does not match the current of the whole string, that cell has a reverse voltage, when measured more than 0.6V, it will automatically activate the bypass diode. As a result, the rest of the cells will not be affected by the disruption. The heated cell will consume less energy generated by the unaffected cells, and produce less heat. Meanwhile, only the heated cell will be bypassed, and the rest of good cells will continue to generate power.



### 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.



### RELIABILITY

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.



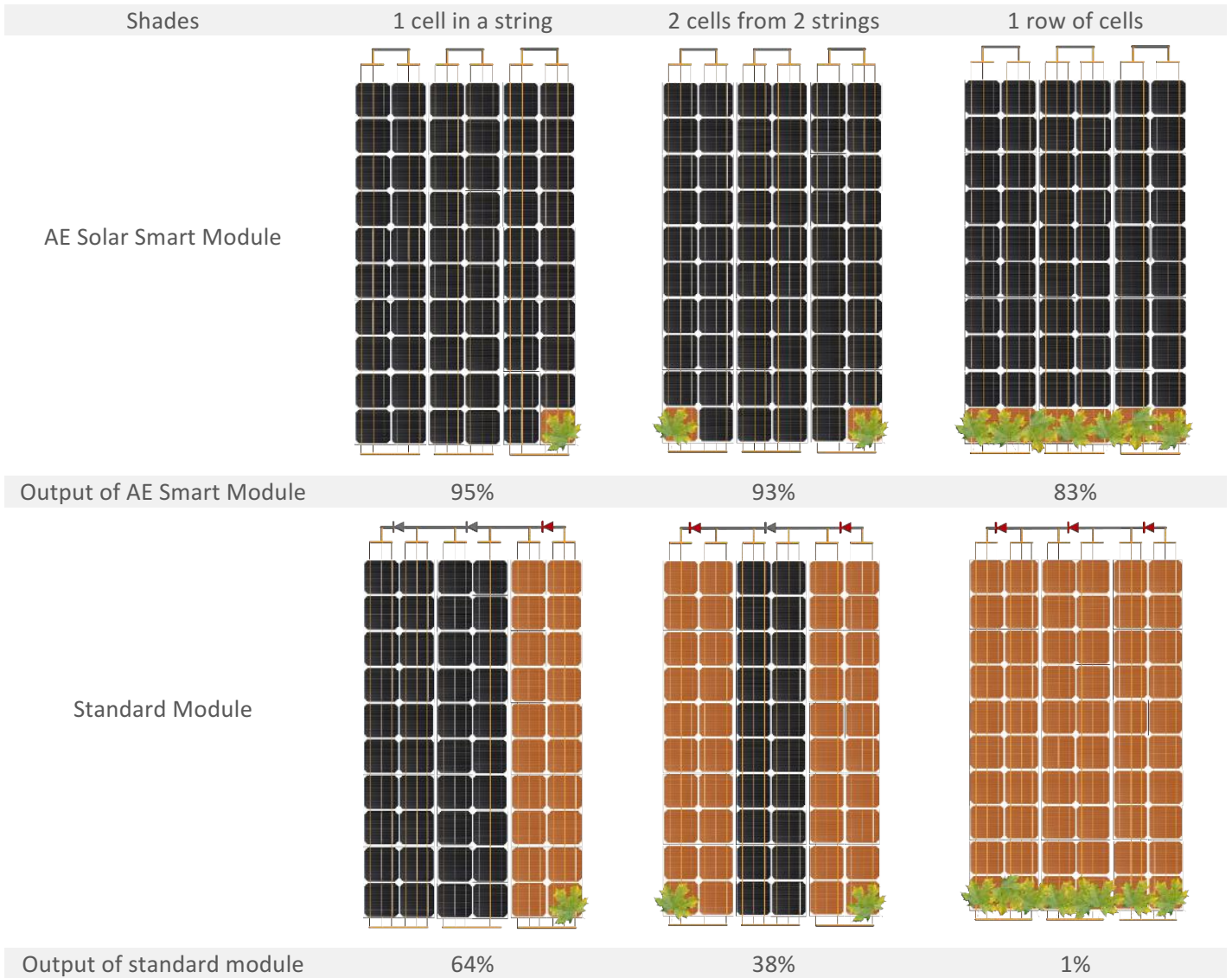
### SAFETY

Instantly reduced temperature, thus eliminating material hazard and ensuring more safety of the module.



# AE Smart Module

## Core - Technology



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When multiple cells are in shade, a hot-spot free module can generate up to 80% more power, compared to a standard module.

It prevents the sharp falls in module output caused by hot spots or module shading, also with the smart optimizer, reducing current and voltage mismatch to significantly increase in overall return for both rooftop and ground mounted installations.

Drastic reduced temperature on hot-spot cells from 160°C to 85°C henceforth eliminates the potential hazards such fire and material degradation and ensures better safety, long life and high returns.



**AE SOLAR**  
Messerschmittring 54  
86343 Königsbrunn  
Germany

Tel.: +49 8231 97 82 68 0  
Fax: +49 8231 97 82 68 9

E-Mail: [info@ae-solar.com](mailto:info@ae-solar.com)  
Web: [www.ae-solar.com](http://www.ae-solar.com)

# AE SMART HOT-SPOT FREE MODULE

## AE SMP6-72 Series 305W-330W

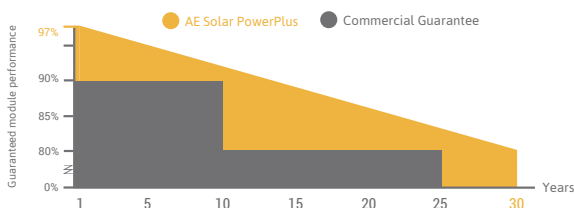


- 305W - 330W**  
**POWER RANGE**  
Plus-Sorting 0 to +4,99Wp
- PID FREE**  
**PID RESISTANT**  
Potential induced degradation free
- SALT CORROSION RESISTANT**  
Certified for salt rich environment
- SAND RESISTANT**  
Certified for sand rich environment
- NH<sub>3</sub> S**  
**AMMONIA RESISTANT**  
Certified for ammonia rich environment
- 550 kg/m<sup>2</sup>**  
**HIGH STRENGTHENED DESIGN**  
Maximum mechanical load 5400 Pa

- Up to 30% more power output in comparison to conventional PV modules
- Space saving for PV plants by using of Smart-Modules in comparison to standard PV modules
- The temperature of Smart-Module cells is not higher than the operating temperature of PV modules
- No reduction of PV modules stability and no fire risk, which is caused by hot spots

- ✓ GERMAN QUALITY**  
AE Solar photovoltaic modules are characterized by high-quality materials, best workmanship, German development and management
- + PLUS-SORTING**  
Higher yield due to plus-sorting of 0 to +4.99 Wp guarantees the highest system efficiency and yield stability
- 🕒 PERFORMANCE GUARANTEE**  
With the linear performance guarantee of 30 years and a product warranty of 12 years, AE Solar guarantees highest investment security and warranty claims
- 📄 CERTIFICATES**  
AE Solar photovoltaic modules are not only in line with international standards, but also tested and certified under extreme stress and any environmental influences

### OUR PERFORMANCE GUARANTEE



**AE SOLAR**  
Messerschmittring 54  
86343 Königsbrunn  
Germany

Tel.: +49 8231 97 82 68 0  
Fax: +49 8231 97 82 68 9

E-Mail: [info@ae-solar.com](mailto:info@ae-solar.com)  
Web: [www.ae-solar.com](http://www.ae-solar.com)

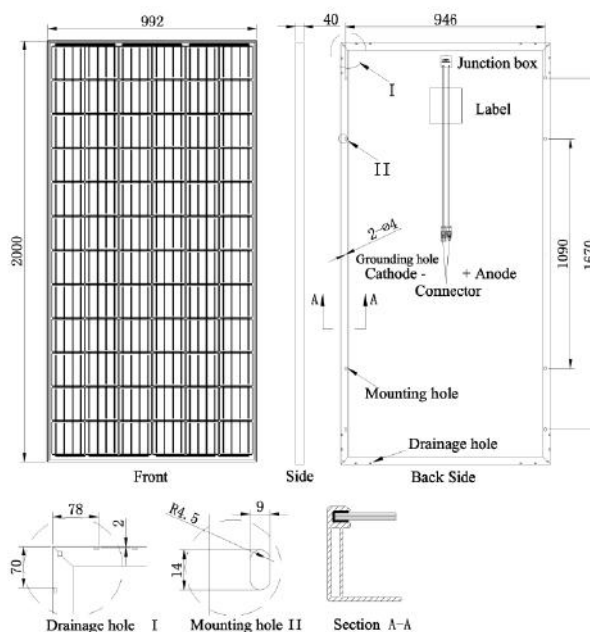
ELECTRICAL DATA		AE305SM P6-72	AE310SM P6-72	AE315SM P6-72	AE320SM P6-72	AE325SM P6-72	AE330SM P6-72
Nominal power	Pm (Wp)	305	310	315	320	325	330
Open circuit voltage	Voc (V)	45.38	45.47	45.59	45.72	45.83	45.89
Short-circuit current	Isc (A)	9.13	9.17	9.24	9.28	9.33	9.37
Voltage at max power	Vmp (V)	36.51	36.60	36.66	36.75	36.83	36.97
Current at max power	Imp (A)	8.35	8.47	8.59	8.71	8.82	8.93
Module efficiency	(%)	15.37	15.63	15.88	16.13	16.38	16.63
System Voltage	(V)	1000					
Temp. coefficient Voc	(%/°C)	-0.33					
Temp. coefficient Isc	(%/°C)	0.059					
Temp. coefficient Pm	(%/°C)	-0.41					
Operating temp.	(°C)	-40 to +85					
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.

### TECHNICAL DATA

Junction box	IP 67
Wire cross section (∅, mm <sup>2</sup> )	4.0 / AWG 12
Cable length (mm)	900 or 1100
Connector type	MC 4 / MC 4 compatible
Dimensions (L x W x H, mm)	2000 x 992 x 40
Weight (kg)	24
Specification (mm)	Poly 156 / 6 x 12
Hail resistance	Max. ∅ 28 mm, at 23 m/s
Wind load	2400Pa / 244kg / m <sup>2</sup>
Mechanical load	5400Pa / 550kg / m <sup>2</sup>

### SCALE



### PACKAGING INFORMATION

Packing configuration	54pcs / pallet
Loading Capacity	594pcs / 40HQ
Size / pallet (mm)	2040 x 1120 x 2335
Weight	1410kg / pallet

