

For a Free Quote:

Web: **EnergyPal.com/solar**

Call: **1-800-990-3725**

Email: **contact@energypal.com**

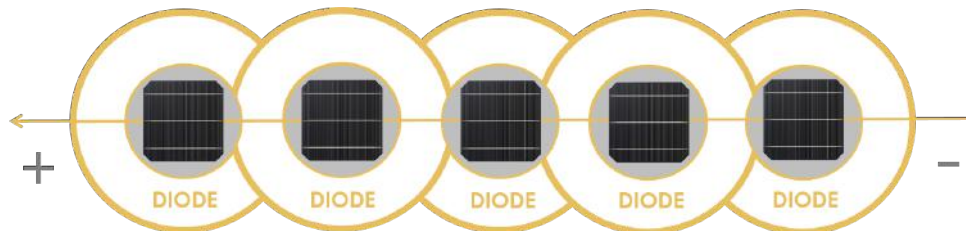
EnergyPal

Solar Panel Guide Specification Data Sheet

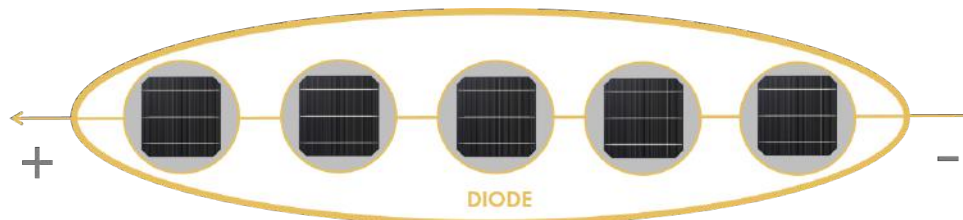
AE Solar
AE SMM6-60_275-300W
AE SMM6-60 290W

Also available on the web at
EnergyPal.com/ae-solar-solar-panels/ae-smm6-60-290w

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.



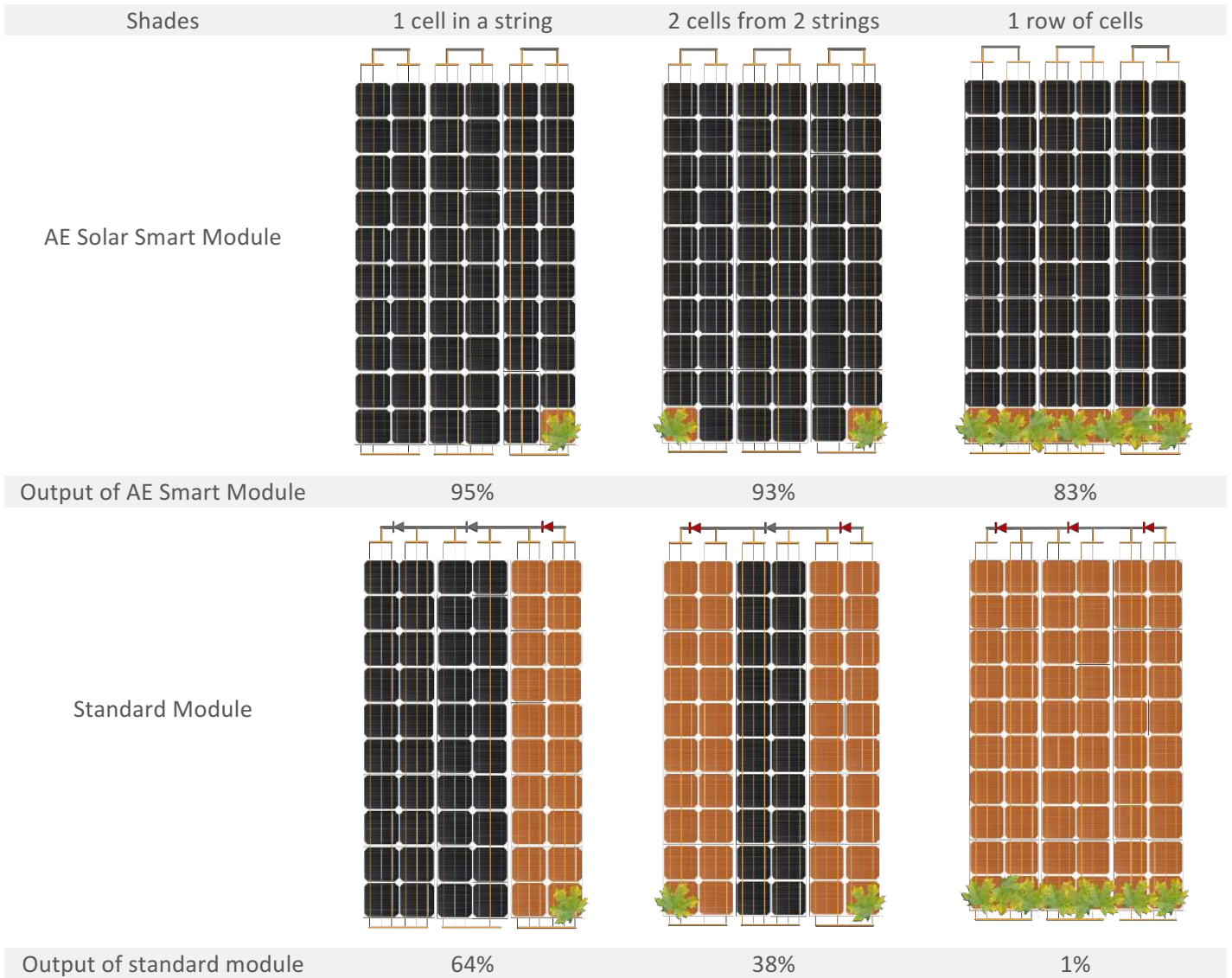
SAFETY

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.



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AE SMART HOT-SPOT FREE MODULE

AE SMM6-60 Series 275W-300W



ILLUSTRATION ONLY



We produce with green energy!



POWER RANGE
Plus-Sorting 0 to +4,99Wp



PID RESISTANT
Potential induced degradation free



SALT CORROSION RESISTANT
Certified for salt rich environment



SAND RESISTANT
Certified for sand rich environment



AMMONIA RESISTANT
Certified for ammonia rich environment



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

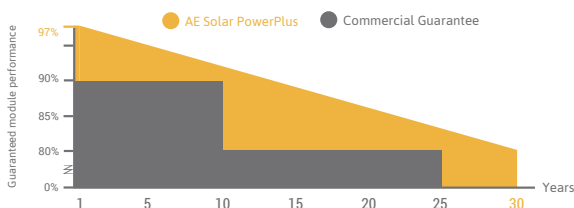
With the linear performance guarantee of 30 years and a product warranty of 12 years, AE Solar guarantees highest investment security and warranty claims



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



IEC 61215
IEC 61730
PERIODICAL
INCEPTION



IEC 61215
IEC 61730
PERIODICAL
INCEPTION



PID RESISTANT
SALT MIST RESISTANT
SAND RESISTANT
CORROSIVE GAS (NH₃)



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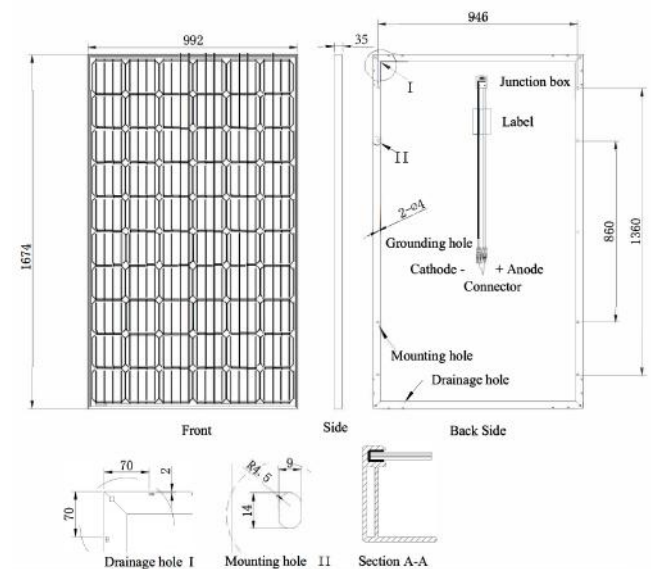
ELECTRICAL DATA		AE275SM M6-60	AE280SM M6-60	AE285SM M6-60	AE290SM M6-60	AE295SM M6-60	AE300SM M6-60
Nominal power	P _m (Wp)	275	280	285	290	295	300
Open circuit voltage	V _{oc} (V)	38.32	38.52	38.73	38.94	39.15	39.36
Short-circuit current	I _{sc} (A)	9.38	9.44	9.49	9.48	9.57	9.62
Voltage at max power	V _{mp} (V)	31.51	31.93	32.34	32.76	33.18	33.59
Current at max power	I _{mp} (A)	8.73	8.77	8.81	8.85	8.89	8.93
Module efficiency	(%)	16.56	16.86	17.16	17.46	17.76	18.07
System Voltage	(V)	1000					
Temp. coefficient V _{oc}	(%/°C)	-0.36					
Temp. coefficient I _{sc}	(%/°C)	0.06					
Temp. coefficient P _m	(%/°C)	-0.36					
Operating temp.	(°C)	-40 to +85					
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.

TECHNICAL DATA

Junction box	3 bypass diodes, IP 67
Wire cross section (∅, mm ²)	4.0
Cable length (mm)	900
Connector type	MC 4 / MC 4 compatible
Dimensions (L x W x H, mm)	1674 x 992 x 35
Weight (kg)	18.6
Specification (mm)	Mono 156 / 6 x 10
Hail resistance	Max. ∅ 28 mm, at 23 m/s
Wind load	2400Pa / 244kg / m ²
Mechanical load	5400Pa / 550kg / m ²

SCALE



PACKAGING INFORMATION

Packing configuration	62pcs / pallet
Loading Capacity	868pcs / 40HQ
Size / pallet (mm)	1710 x 1135 x 2325
Weight	1270kg / pallet

