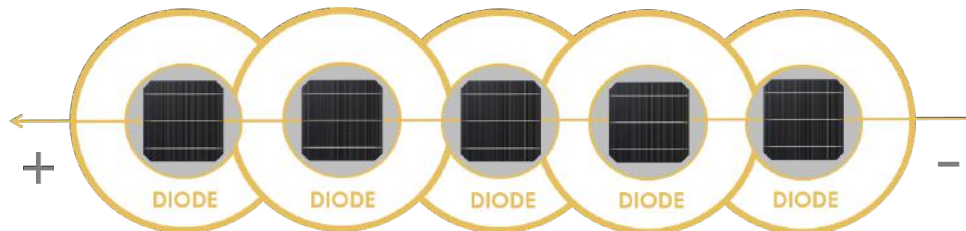
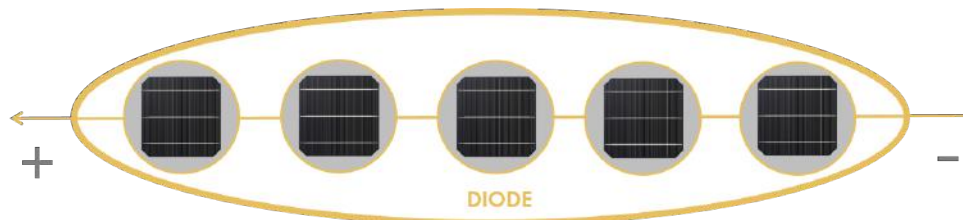


## NEW AE SOLAR MODULE



## 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.



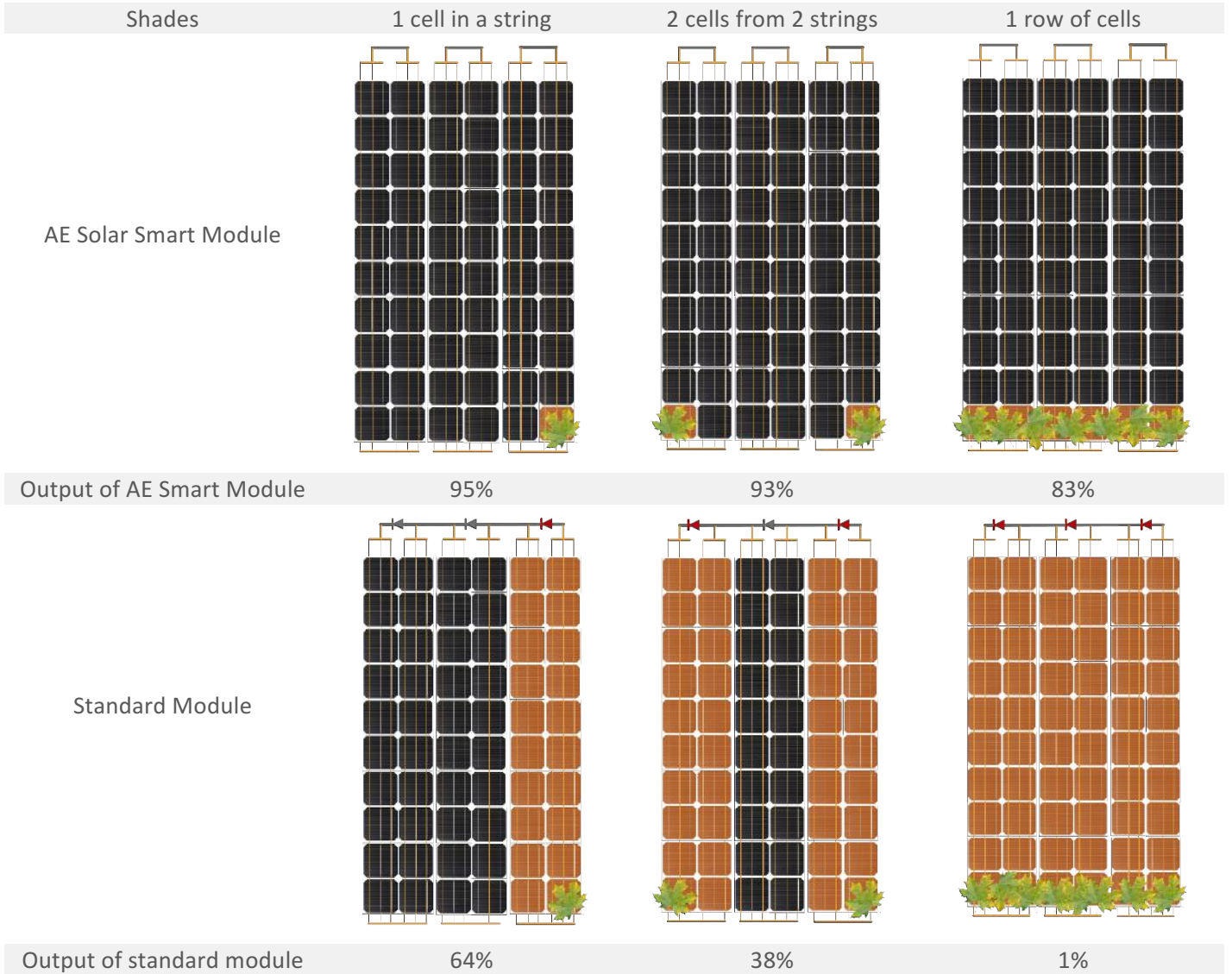
### SAFETY

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 80% more power, compared to a standard module.

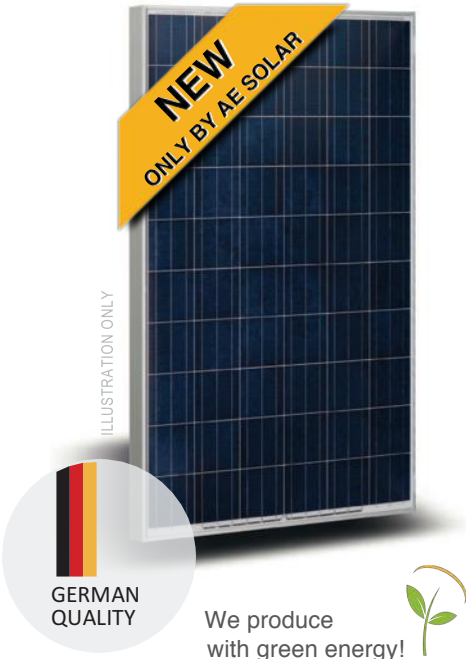
It prevents the sharp falls in module output caused by hot spots or module shading, also with the smart optimizer, reducing current and voltage mismatch to significantly increase in overall return for both rooftop and ground mounted installations.

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 SMART HOT-SPOT FREE MODULE

## AE SMP6-60 Series 255W-280W



255W  
-  
280W

**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

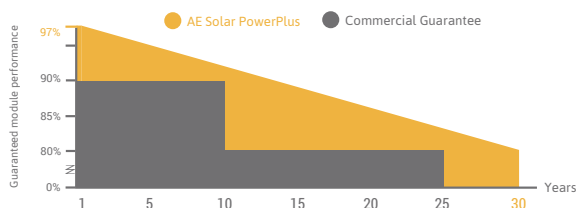


**PERFORMANCE GUARANTEE**  
With the linear performance guarantee of 30 years and a product warranty of 12 years, AE Solar guarantees highest investment security and warranty claims



**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



IEC 61215  
IEC 61730  
PERIODICAL  
INCEPTION



IEC 61215  
IEC 61730  
PERIODICAL  
INCEPTION



PID RESISTANT  
SALT MIST RESISTANT  
SAND RESISTANT  
CORROSIVE GAS (NH<sub>3</sub>)

**CEC CE**



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Web: [www.ae-solar.com](http://www.ae-solar.com)

| ELECTRICAL DATA       |         | AE255SM<br>P6-60 | AE260SM<br>P6-60 | AE265SM<br>P6-60 | AE270SM<br>P6-60 | AE275SM<br>P6-60 | AE280SM<br>P6-60 |
|-----------------------|---------|------------------|------------------|------------------|------------------|------------------|------------------|
| Nominal power         | Pm (Wp) | 255              | 260              | 265              | 270              | 275              | 280              |
| Open circuit voltage  | Voc (V) | 37.68            | 37.89            | 38.10            | 38.31            | 38.52            | 38.72            |
| Short-circuit current | Isc (A) | 9.15             | 9.22             | 9.26             | 9.31             | 9.35             | 9.38             |
| Voltage at max power  | Vmp (V) | 29.58            | 29.99            | 30.41            | 30.82            | 31.24            | 31.65            |
| Current at max power  | Imp (A) | 8.62             | 8.67             | 8.71             | 8.76             | 8.80             | 8.85             |
| Module efficiency     | (%)     | 16.56            | 16.86            | 17.16            | 17.46            | 17.76            | 18.07            |
| System Voltage        | (V)     | 1000             |                  |                  |                  |                  |                  |
| Temp. coefficient Voc | (%/°C)  | -0.36            |                  |                  |                  |                  |                  |
| Temp. coefficient Isc | (%/°C)  | 0.06             |                  |                  |                  |                  |                  |
| Temp. coefficient Pm  | (%/°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/m<sup>2</sup> 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 <sup>2</sup> ) | 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)                       | Poly 156 / 6 x 10               |
| 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> |

### PACKAGING INFORMATION

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

### SCALE

