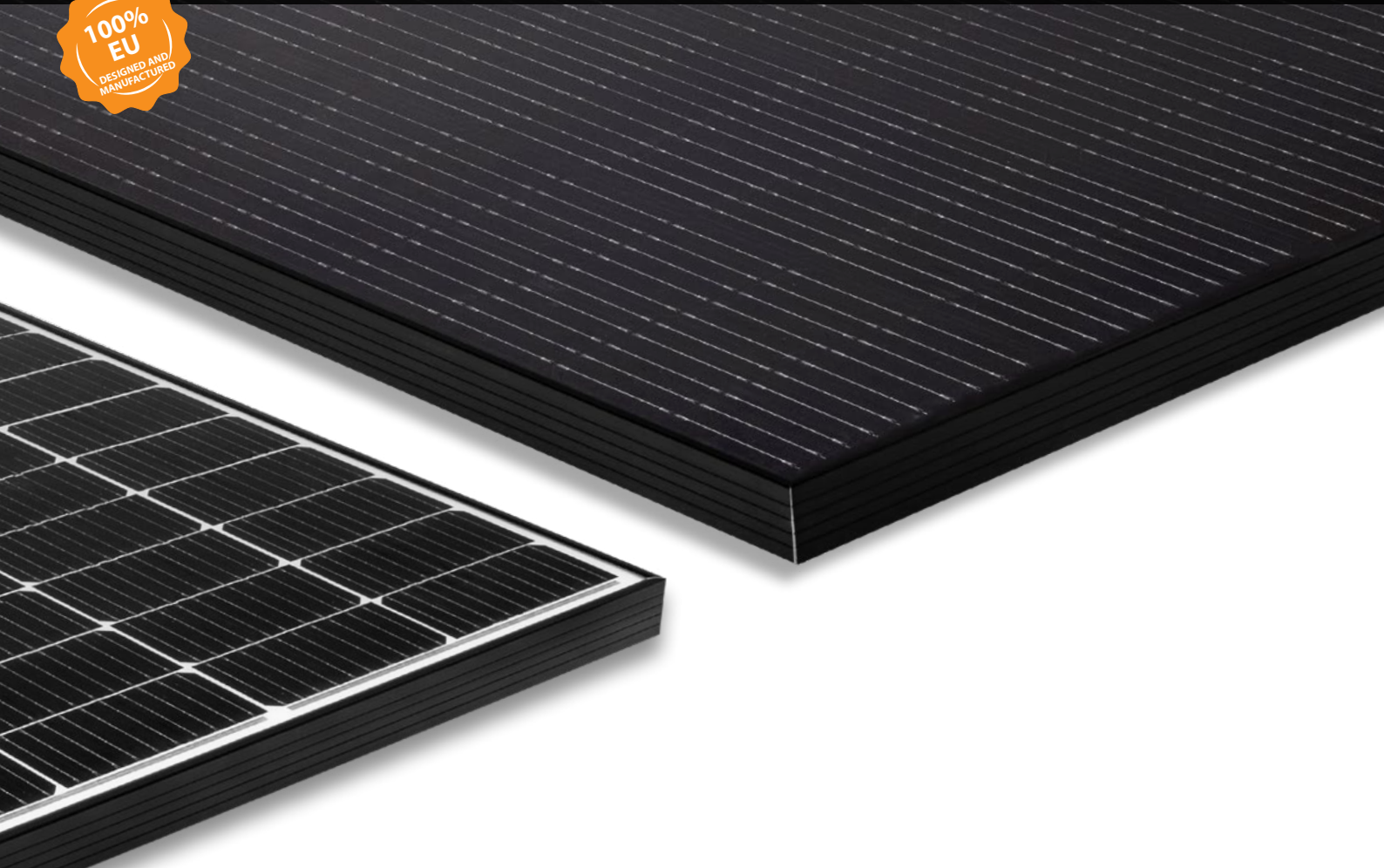


PREMIUM

# BISOL Duplex

Monocrystalline Half-Cut PV Modules (132 Cells) / BBO 520-540 Wp



Designed and manufactured in EU



Higher power



Lower losses



All relevant certificates



Limited shading



Module presorting for higher profitability



Module efficiency up to 22.3 %

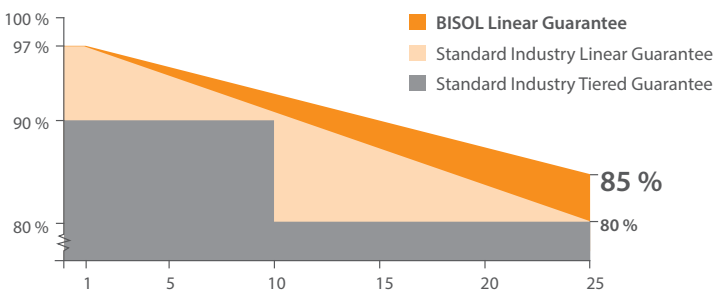


Strictly positive output power tolerances



Excellent low light performance

## Guarantees:



Linear Guarantee  
85 % power output in 25<sup>th</sup> year



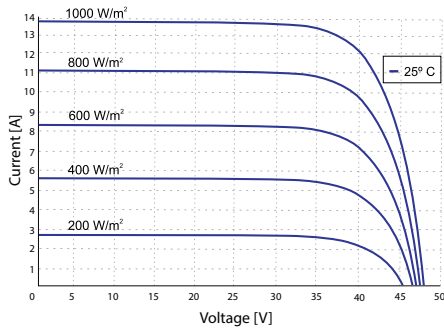
Product Guarantee  
Standard: 15 years  
Extra: 20 years

## In compliance with:

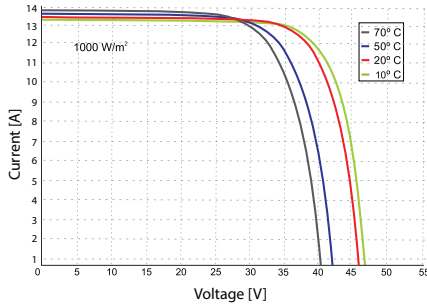


Certificates available upon special request. Additional charges may apply.

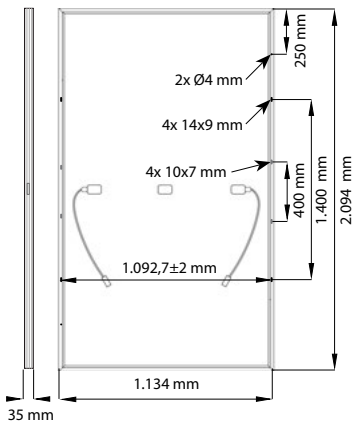
### I-V Curve at Various Irradiation Levels



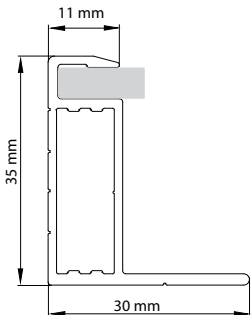
### I-V Curve at Various Cell Temperatures



### Dimensions



### Frame Cross Section



### Electrical Specifications @ STC (1,000 W/m<sup>2</sup>, AM 1.5, 25 °C):

| Module Type             | BBO           | 520      | 525  | 530  | 540  |
|-------------------------|---------------|----------|------|------|------|
| Nominal Power           | $P_{MPP}$ [W] | 520      | 525  | 530  | 540  |
| Short Circuit Current   | $I_{SC}$ [A]  | 14.3     | 14.4 | 14.4 | 14.6 |
| Open Circuit Voltage    | $V_{OC}$ [V]  | 46.4     | 46.6 | 46.7 | 47.0 |
| MPP Current             | $I_{MPP}$ [A] | 13.6     | 13.7 | 13.8 | 13.9 |
| MPP Voltage             | $V_{MPP}$ [V] | 38.5     | 38.6 | 38.8 | 39.1 |
| Module Efficiency       | $\eta_M$ [%]  | 21.9     | 22.1 | 22.3 | 22.7 |
| Cell Efficiency         | $\eta_C$ [%]  | 23.8     | 24.0 | 24.2 | 24.7 |
| Power Output Tolerance  |               | 0/+5 W   |      |      |      |
| Maximum System Voltage  |               | 1,500 V  |      |      |      |
| Maximum Reverse Current |               | 25 A     |      |      |      |
| Protection Class        |               | Class II |      |      |      |

Additional power classes available upon request. | Efficiency at irradiation 200 W/m<sup>2</sup>: 99.3 % of STC efficiency or higher. | Tolerances for  $V_{OC}$  and  $I_{SC}$  and other electrical parameters are  $\pm 3\%$ .

### Electrical Specifications @ NOCT (800 W/m<sup>2</sup>, AM 1.5, 42 °C, Wind 1 m/s):

| Module Type           | BBO           | 520   | 525   | 530   | 540   |
|-----------------------|---------------|-------|-------|-------|-------|
| Nominal Power         | $P_{MPP}$ [W] | 398.0 | 402.0 | 405.0 | 413.0 |
| Short Circuit Current | $I_{SC}$ [A]  | 11.53 | 11.61 | 11.61 | 11.77 |
| Open Circuit Voltage  | $V_{OC}$ [V]  | 44.4  | 44.6  | 44.7  | 45.0  |
| MPP Current           | $I_{MPP}$ [A] | 10.96 | 11.04 | 11.12 | 11.21 |
| MPP Voltage           | $V_{MPP}$ [V] | 36.4  | 36.5  | 36.5  | 36.9  |

### Thermal Specifications:

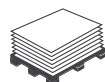
|                                 |          |                    |
|---------------------------------|----------|--------------------|
| Current Temperature Coefficient | $\alpha$ | + 0.045 %/°C       |
| Voltage Temperature Coefficient | $\beta$  | - 0.250 %/°C       |
| Power Temperature Coefficient   | $\gamma$ | - 0.300 %/°C       |
| NOCT                            |          | 42 $\pm$ 3 °C      |
| Temperature Range               |          | - 40 °C to + 85 °C |

### Mechanical Specifications:

|                                 |   |
|---------------------------------|---|
| Length x Width x Thickness      | 2,094 x 1,134 x 35 mm   |
| Weight                          | 26 kg   |
| Solar Cells                     | 132 Half-Cut c-Si / 182 x 91 mm   |
| Junction Box / Connectors / IP  | 3 bypass diodes / MC4 compatible / IP 68                                |
| Cable Length                    | Default: 1,200 mm<br>On demand (for portrait orientation): 300 mm       |
| Frame                           | Anodized Al with drainage holes / rigid anchored corners                |
| Glass                           | 3.2 mm AR coating tempered glass / high-transparency / low-iron content |
| Certified Test Load (Snow/Wind) | 5,400 Pa / 2,400 Pa   |
| Impact Resistance               | Hailstone / Ø 25 mm / 83 km/h (51 mph)                                  |

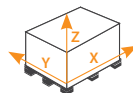
Tolerances of values are  $\pm 5\%$ . Unspecified product properties remain under full discretion of BISOL Production.

### Packaging Information:



Modules per Pallet

30



Packaging Dimension:  
Length/Width/Height

212 x 116 x 127 cm



Stackable

3 pallets



Packaging Weight

807 kg



Tot. Nr. of Pallets/Load

24