photovoltaics | plus

BIOENERGY Solar Photovoltaic Panels stand for quality, durability and most importantly, high-performance. Our experience, capacity of research, continuing development and improvement have turned us into a company recognized in the sector by the high value offered to our clients.

Due to their engineered hollow-section frame and its 4mm special solar glass (standard solar module has 3.2mm), BIOENERGY PLUS modules meet the maximum demands with regard to stability and corrosion resistance.

Thanks to their high performance BIOENERGY PLUS modules are prepared for changes in legislation. These panels will produce 5% more than any other of the same features.



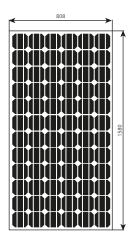
Electrical Characteristics

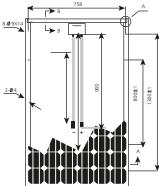
					i.
	175	180	185	190	195
Reference	P111175	P111180	P111185	P111190	P111195
Maximum power (Wp)	175Wp	180Wp	185Wp	190Wp	195 Wp
Max. power voltage (Vmax)	35.3	36.0	36.27	36.5	36.94
Max. power current (Imax)	4.96	5.00	5.10	5.20	5.28
Open circuit voltage (Voc)	44.20	44.80	45.00	45.20	45.08
Short circuit voltage (lsc)	5.20	5.30	5.50	5.60	5.58
Modulle Eff. (%)	13,70	14,10	14,88	15,27	15.27
Operating temperature	-40°C + 80°C				
Maximum system voltage	1000 V(IEC)				
Power tolerance (%)			0-3%		

Mechanical Characteristics

Solar Cells	Mono-crystalline
Dimensions	1580x808x40 mm
Weight	15,5 kg
Transparency	10%
No. Cells	72 cells (125 x 125 mm) configured geometrically for 6x12 matrix connected in series
Output cables length	900 mm
Cable cross section size	4 mm ²
Construction	High Transmission, Low Iron, Tempered Glass 3.2 mm
Connectors	Compatible Type IV and Type III
No. of draining holes in frame	12

Dimensions





Temperature Coefficients

Nominal operating cell temperature (NOCT)	47 °C ± 2°C
Temperature coefficient of power (PMAX)	-0.43 %/°C
Temperature coefficient (VOC)	-0.31 %/°C
Temperature coefficient (ISC)	03 %/°C
Continuous wind pressure	<5400 Pa

The 10 years product warranty surpasses the warranty required by law

The performance warranty is for 30 years: after 12 years, modules still produce a minimumt 90% of their nominal performance, after 30 years modules still produce a minimum 80% or their nominal performance.

BIOENERGY 044