

## Photovoltaic Modules Extra Power AP 60 60 cells – multicrystalline silicon

Wp: 255 – 260



Made in EU

### Product Warranty

- 10 years warranty on manufacturing defects\*

### Performance Warranty

- 12 years warranty on 90% of the nominal power \*
- 25 years warranty on 80% of the nominal power \*

\* If properly installed and used according to the available instructions for storing, mounting, usage and maintenance

### Disposal Warranty and Recycling

- COBAT (for Italy)
- PV CYCLE ASSOCIATION AISBL (for Europe)



### System Certifications

#### Integrated Management System

- Quality - UNI EN ISO 9001:2008
- Environment - UNI EN ISO 14001:2004
- Health & Safety - OHSAS 18001:2007
- Certiquality Certificate of Excellence



### Characteristics & Performance

- **Product and Service** *Made in Italy* 
- **Quality and Robustness**
  - High Quality raw materials
  - Quality control on 100% of modules
  - High transparency, 4 mm glass
  - Anodized aluminum 45 mm profile
- **Resistance to critical environment**
  - Static load test at 540 kg/m<sup>2</sup>
  - Hail with diameter of 25mm and speed of 83 km/h
  - Ideal for seaside and marine areas, rural environment, farms
- **High productivity**
  - Special anti-reflective glass for higher energy yields: up to 4% more
  - Current/power range strictly classified to reduce mismatching losses

### Product Tests and Certifications



Safety Class II

- **Conformity and Factory Inspection**
- **"MADE IN EU" Attestation for Italy**
- **"MADE IN EU" Attestation for France**
- **Type Approval**
  - IEC 61215:2005 - Quality and Robustness
  - IEC 61730 - 1 / 2 - Safety
- **MCS Certification for UK**
- **Salt Mist Fog Resistance Test**  
Resistance in seaside areas - IEC 61701:2000
- **Ammonia Resistance Test**  
Resistance in farms
- **Special Component mechanical test**  
Mechanical load test
- **Ageing Resistance Test**  
2000h Heat-Dump Test (85°C/85%R.H.)  
40 years aging in average environmental conditions
- **Fire Reaction Class (Class II)**

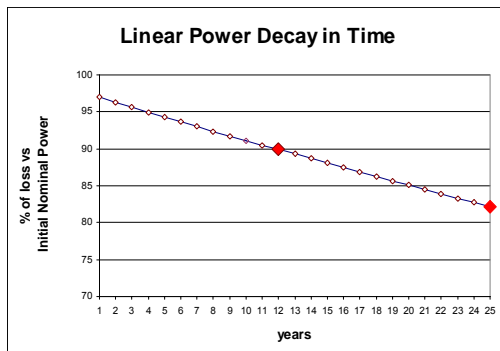


# Photovoltaic Modules Extra Power AP 60

## Electrical Features

Type		AP 60-255	AP 60-260
<b>Performance at Standard Conditions (STC): Irradiance 1000 W/m<sup>2</sup>; Module Temperature 25°C; AM 1.5</b>			
Nominal Power	P <sub>mpp</sub> (W)	255	260
Maximum Power Voltage	V <sub>mpp</sub> (V)	30,75	31,10
Maximum Power Current	I <sub>mpp</sub> (A)	8,32	8,36
Open Circuit Voltage	V <sub>oc</sub> (V)	38,25	38,50
Short Circuit Current	I <sub>sc</sub> (A)	8,90	8,92
Fill Factor	%	75,15	75,71
Module efficiency	%	15,42	15,67
Power tolerance	%	-2 / +2	-2 / +2
Working Temperature	(°C)	- 40 / + 85	- 40 / + 85
Maximum Voltage	(V <sub>DC</sub> )	1000	1000
NOCT	(°C)	43 ± 2	43 ± 2
<b>Performance at NOCT: Irradiance 800 W/m<sup>2</sup>; Module Temperature 43°C; AM 1.5</b>			
Maximum Power	P <sub>max</sub> (W)	187,3	190,3
Maximum Power Voltage	V <sub>mpp</sub> (V)	29,73	30,07
Maximum Power Current	I <sub>mpp</sub> (A)	6,32	6,35
Open Circuit Voltage	V <sub>oc</sub> (V)	35,86	36,10
Short Circuit Current	I <sub>sc</sub> (A)	6,92	6,93

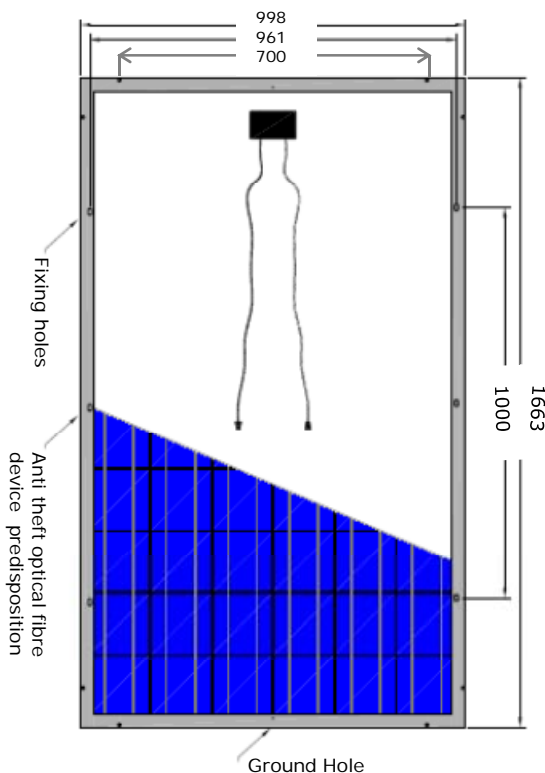
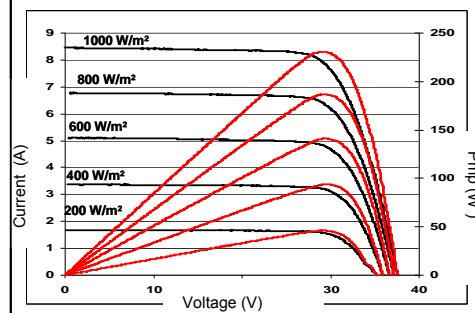
All electrical measures ±10% tolerance (but P<sub>mpp</sub> and NOCT)



### Temperature Coefficients

of I<sub>sc</sub> (α) = 0.06 % / °C // 5.429 mA / °C  
 of V<sub>oc</sub> (β) = -0.31 % / °C // -0.116 V / °C  
 of P<sub>max</sub> (γ) = -0.43% / °C // 0.969 W / °C

### Electrical features at different irradiance



### Design

**Front Cells** High transparency anti-reflective 4 mm tempered glass  
 60 cells – Multicrystalline Silicon - 156 x 156 mm – 3bb  
**Encapsulant** EVA ( Etylene - Vinyl Acetate co/polymer )  
**Backsheet** Polymeric laminate  
**Profile** Anodized Aluminium - 6060 – Anticorodal  
**Junction Box** IP 65 (IEC 60529) - Class II (DIN VDE0106)  
 3 by-pass diodes  
**Cables** 2 unipolar, 4 mm<sup>2</sup> wires - rapid clutch - 1 m length

### Dimensions

Length	(mm)	1663
Width	(mm)	998
Profile Thickness	(mm)	45
Weight	(kg)	22
Front glass thickness	(mm)	4

### Holes

**Mounting slots** 8 slots (9 mm x 16 mm) at a distance of:  
 1000 mm - centered on the long side  
 700 mm - centered on the short side

**Ground Hole** 1 hole (5 mm) with identification label  
**Drain Holes** 2 drain holes (7 mm) on each side  
 100 mm from corner

**Made in Italy**



Ferrania Solis S.r.l. - Viale della Libertà, 57 - 17014 Cairo Montenotte (Savona)  
 Tel. : +39 019522 4609/4695/4094 - Fax.: +39 0195224227 – info@ferraniasolis.com  
[www.ferraniasolis.com](http://www.ferraniasolis.com)

**ferrania Solis**