

AP-1106/AP-1206 PHOTOVOLTAIC MODULES

AstroPower's AP-1106/AP-1206 modules utilize the AP-106 high-efficiency six-inch single crystal solar cell, the largest solar cell commercially available today. Over the last two decades, single crystal silicon has become the industry standard – accounting for more than twice the installed capacity compared to any other PV technology. AstroPower's six-inch single crystal solar cells extend this proven technology and capture significant economies of scale during manufacturing and installation.

The high power of these modules means that fewer units need to be lifted, installed and interconnected, compared to lower-output competitive products. This is especially relevant to emerging utility connected applications and commercial/industrial projects where large array sizes and low installation costs are desirable. Yet the module weight has been kept low enough so that a single person can easily handle one safely.

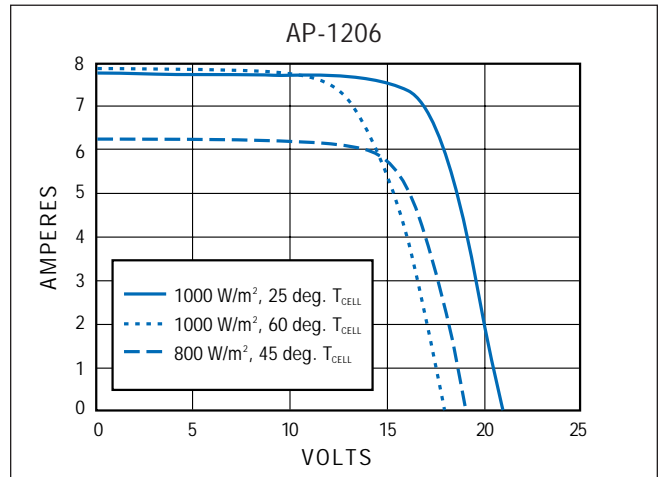
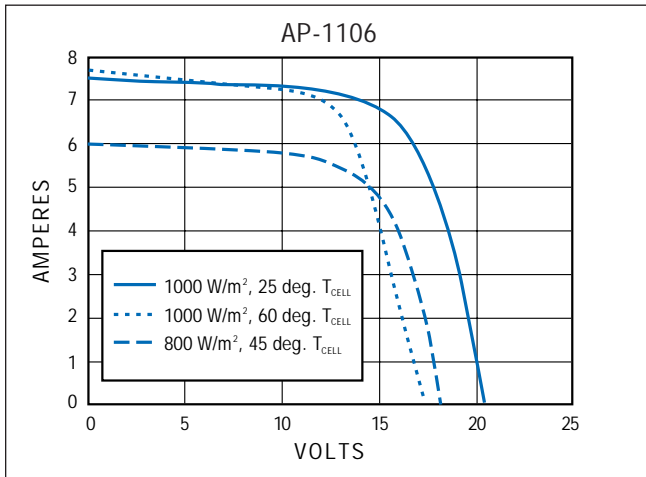
The AP-1106/AP-1206 modules utilize industry standard construction techniques for high strength and durability. Every module is covered by a comprehensive twenty-year warranty and meets all applicable industry and consumer standards for safety and reliability.



MODULE FEATURES

- Each module contains 36 series-connected single crystal silicon solar cells for optimum battery charging performance in hot weather or low light levels.
- Over 6.5 amps of charging current in full sunlight.
- Dual high-capacity bypass diodes built in for superior protection in case of temporary local shading conditions.
- Anti-reflective coating applied to solar cell front surface enhances output and provides improved optical matching to glass and encapsulant.
- 100% of all solar cells and modules are electronically tested to assure quality and performance.
- Heavy duty anodized frame provides strength and convenient mounting access.
- Module width and mounting hole pattern conform to industry standards – fits existing mounting racks and trackers.
- Weather resistant junction box, including protective diodes, allows for easy and safe field interconnection.
- UL Listed / IEC1215 / CEC503 / TÜV.
- Twenty year warranty.
- Also available in black frame/blue tedlar designed specifically to enhance the appearance of residential rooftop installations.

ELECTRICAL/MECHANICAL CHARACTERISTICS



TYPICAL ELECTRICAL/MECHANICAL PARAMETERS

Nominal Operating Cell Temp. (NOCT)	45°C <small>(Determined under: Irradiance = 800 W/m²; ambient temperature = 20°C; wind speed = 1m/s)</small>
Short Circuit Temp. Coefficient	+0.6mA/°C
Open Circuit Voltage Coefficient	-0.08 V/°C
Typical Fill Factor	71% (AP-1106) 74% (AP-1206)
High Voltage Standoff Potential	2200 Volts
Ground Continuity of Frame	< 1 ohm
Weight (Wind) Bearing Potential	50 lbs/ft² (125 mph equiv.) <small>(2400 N/m² (200 kph equiv.))</small>
Hailstone Impact Resistance	1" @ 50 mph (24 mm @ 80 kph)

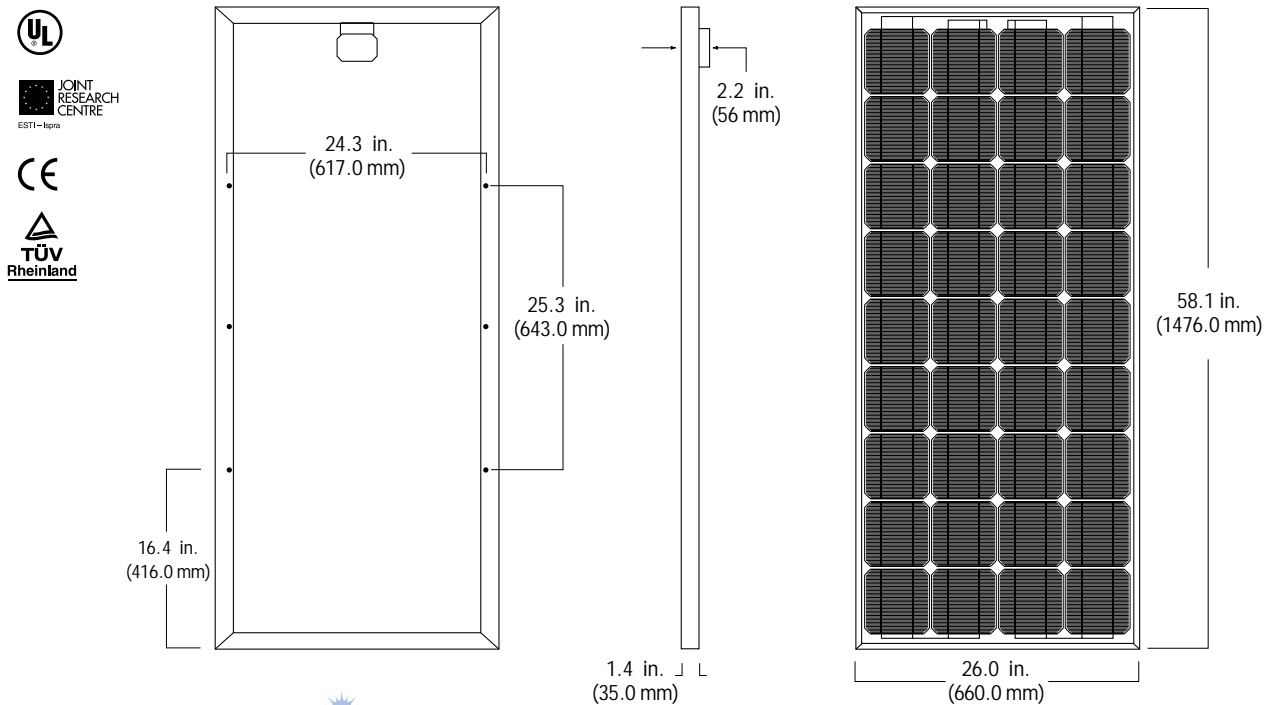
TYPICAL OUTPUT SPECIFICATIONS

@ Standard Test Conditions (defined as: Irradiance = 1000 W/m²; cell temperature = 25°C; solar spectral irradiance per ASTM E892 (air Mass = 1.5))

	AP-1106	AP-1206
Peak Power * (W _p)	110 Watts	120 Watts
Open Circuit Voltage (V _{oc})	20.7 Volts	21.0 Volts
Max. Power Voltage (V _{mp})	16.7 Volts	16.9 Volts
Short Circuit Current (I _{sc})	7.5 Amps	7.7 Amps
Max. Power Current (I _{mp})	6.6 Amps	7.1 Amps
Weight	26.1 lbs. (11.9 kg)	
Dimensions	58.1 x 26.0 x 1.4 in. (1476.0 x 660.0 x 35.0 mm)	

*rated power tolerance ±10%

AP-1106/AP-1206 PHYSICAL SPECIFICATIONS



Note: Mounting hole diameter is .26" (6.6 mm).

