AP-6105/AP-7105 PHOTOVOLTAIC MODULES

AstroPower's AP-6105/AP-7105 modules are based on high-efficiency five-inch single crystal solar cells. Crystalline solar cell technology is the industry standard, in use for over two decades in hundreds of thousands of application sites throughout the world. The five-inch AstroPower solar cells build on this extensive experience base, but capture the cost advantages inherent to larger size solar cells.

AP-6105/AP-7105 modules utilize industry standard construction techniques to ensure long life even in the most severe environments. Every module is covered by a comprehensive twenty year warranty, and meets all applicable industry and consumer standards for safety and reliability.

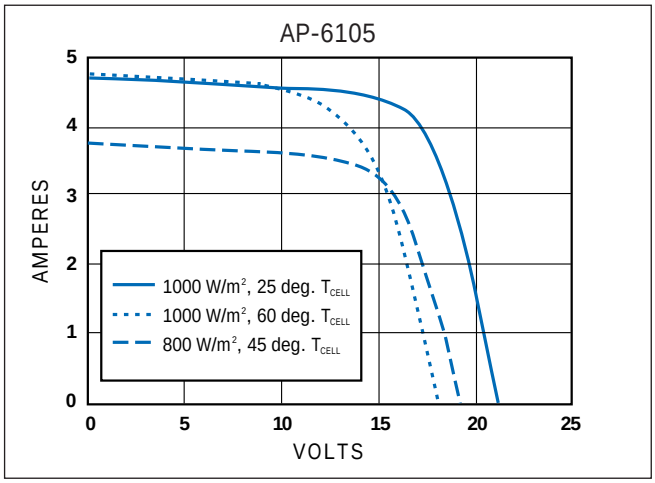
The lower cost and high performance of these modules makes them suited to an extremely wide range of PV applications. Conventional industrial systems such as telecommunication and navigation aids will benefit from the high performance and durability of this design. Price-sensitive applications such as rural electrification (water pumping, village power, home lighting systems, etc.) will benefit from the extra value which these modules afford without the need to compromise quality or performance.

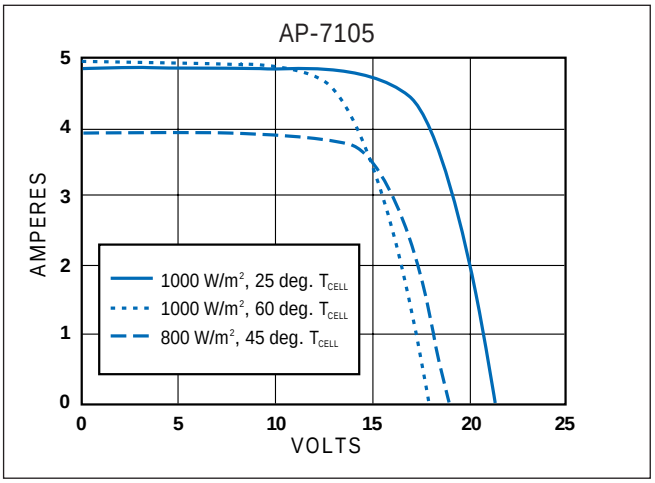
MODULE FEATURES

- Each module contains 36 series-connected single crystal silicon solar cells for optimum battery charging performance in hot weather or low light levels.
- Power output of 65-75 watts meets the range of greatest market demand.
- Over 4.0 amps of charging current in full sunlight.
- 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.

ASTROPOWER

ELECTRICAL/MECHANICAL CHARACTERISTICS





TYPICAL ELECTRICAL/MECHANICAL PARAMETERS

Nominal Operating Cell Temp. (NOCT)	42°C {Determined under: Irradiance = 800 W/m²; ambient temperature = 20°C; wind speed = 1m/s}
Short Circuit Temp. Coefficient	+0.2mA/°C
Open Circuit Voltage Coefficient	-0.08 V/°C
Typical Fill Factor	69% (AP-6105) 74% (AP-7105)
High Voltage Standoff Potential	2200 Volts
Ground Continuity of Frame	< 1 ohm
Weight (Wind) Bearing Potential	50 lbs/ft² (125 mph equiv.) {2400 N/m² (200 kph equiv.)}
Hailstone Impact Resistance	1" @ 50 mph (24 mm @ 80 kph)

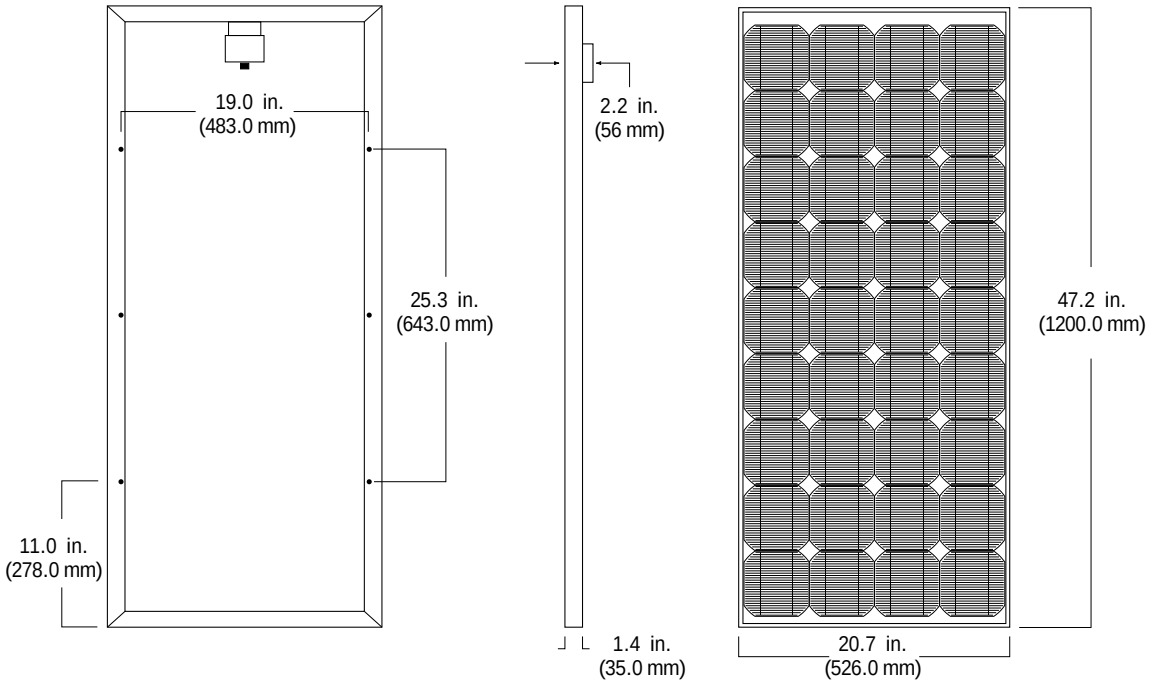
TYPICAL OUTPUT SPECIFICATIONS

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

	AP-6105	AP-7105
Peak Power *(W_p)	65 Watts	75 Watts
Open Circuit Voltage (V_{oc})	20.5 Volts	21.0 Volts
Max. Power Voltage (V_{mp})	16.3 Volts	17.0 Volts
Short Circuit Current (I_{sc})	4.6 Amps	4.8 Amps
Max. Power Current (I_{mp})	4.0 Amps	4.4 Amps
Weight	18.1 lbs. (8.2 kg)	
Dimensions	47.2 x 20.7 x 1.4 in. (1210.0 x 526.0 x 35.0 mm)	

*rated power tolerance ±10%

AP-6105/AP-7105 PHYSICAL SPECIFICATIONS



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

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