

# ASTROPOWER PRODUCTS



## ABOUT ASTROPOWER

AstroPower is the leading independent manufacturer of solar electric power products. Founded in 1983, AstroPower manufactures and markets solar cells, modules, and systems for generating electric power from sunlight. AstroPower products are used around the world in a wide range of applications—both on and off the electricity grid. AstroPower and its wholly owned subsidiary, Atersa, operate manufacturing plants in the USA and Europe as well as six regional sales offices around the world. AstroPower is a publicly owned company, traded on the NASDAQ under the symbol “APWR.”



### Corporate Offices

#### **AstroPower, Inc.**

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302 366 0400

#### **AstroPower West, LLC**

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925 288 0400

#### **AstroPower Far East PTE LTD**

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#### **AstroPower African Region**

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#### **Atersa S.A.**

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+34 91 517 8580

#### **Atersa America, Inc.**

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Boca Raton, FL 33498 USA  
561 479 3614



### Manufacturing Facilities

#### **AstroPower, Inc.**

231 Lake Drive  
Newark, DE 19702 USA  
302 366 0400

#### **Atersa, S.A.**

Cami Del Bony, #16  
46470 Catarroja, Valencia Spain  
+34 961 278 150

Advanced technology is at the core of every AstroPower product. Through a process of continuous innovation, AstroPower has developed a range of solar electric power products that sets industry standards for quality and customer value. AstroPower's technology is based on crystalline silicon, the material of choice for efficiency and reliability for over 25 years.



### Single Crystal Technology

AstroPower's single crystal solar cells are among the highest efficiency solar cells commercially available. Manufactured using silicon wafers recycled from the microchip industry, these products provide industry-leading performance and value while requiring up to 10 times less energy to produce compared with conventional solar cells. Better for our customers, and better for the environment.



### Silicon-Film™ Technology

AstroPower's APex™ products are made using the revolutionary Silicon-Film™ high-speed continuous silicon sheet technology. Similar in concept to low-cost techniques for producing float glass or sheet steel, the Silicon-Film™ process produces polycrystalline silicon wafers in a fraction of the time of conventional methods. Silicon-Film™ takes PV technology to the next level.

# ASTROPOWER SOLAR CELLS

AstroPower solar cells have set the industry standard for high-efficiency, durability, and cost-effectiveness. Our combined line of single-crystal silicon and APex™ solar cells is ideal for a wide spectrum of solar electric power applications – from milliwatt-scale consumer product arrays to multi-megawatt utility power stations. Ranging from the industry standard 4" and 5" solar cells to the unmatched power of our new 8" products, AstroPower solar cells feature specially-prepared contact surfaces to ensure simple and reliable solder connections as well as a highly uniform anti-reflection coating to enhance cell efficiency and aesthetics.

## AP-4

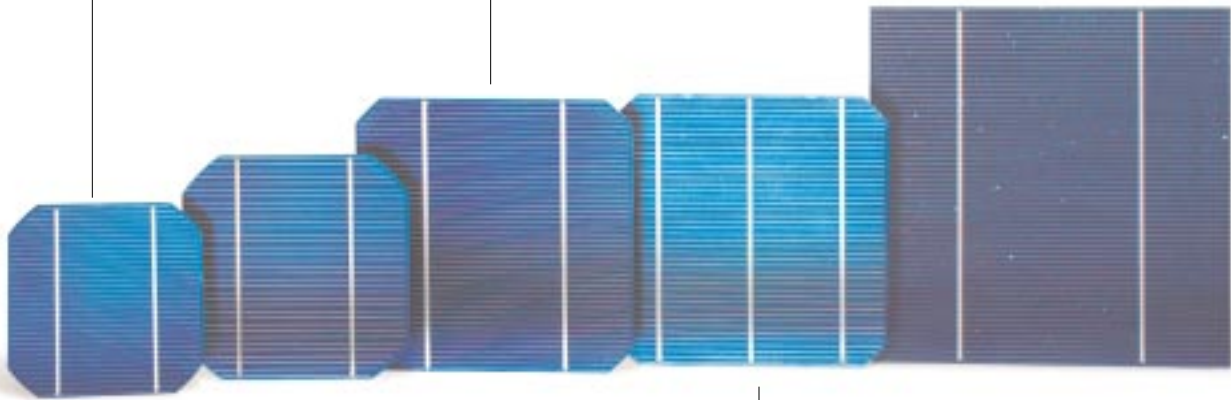
**Size:** 4" (103 mm)  
pseudo-square  
**Type:** Single crystal  
**Nominal power:** 1.4 watts  
**Typical application:** 50-watt modules

## AP-6

**Size:** 6" (155 mm)  
pseudo-square  
**Type:** Single crystal  
**Nominal power:** 3.3 watts  
**Typical application:** 120-watt modules, BIPV\*

## APx-8

**Size:** 8" (208 mm) square  
**Type:** APex™ polycrystalline  
**Nominal power:** 4.1 watts  
**Typical application:** 140-watt modules, BIPV\*



## AP-5

**Size:** 5" (125 mm)  
pseudo-square  
**Type:** Single crystal  
**Nominal power:** 2.1 watts  
**Typical application:** 35 & 75-watt modules

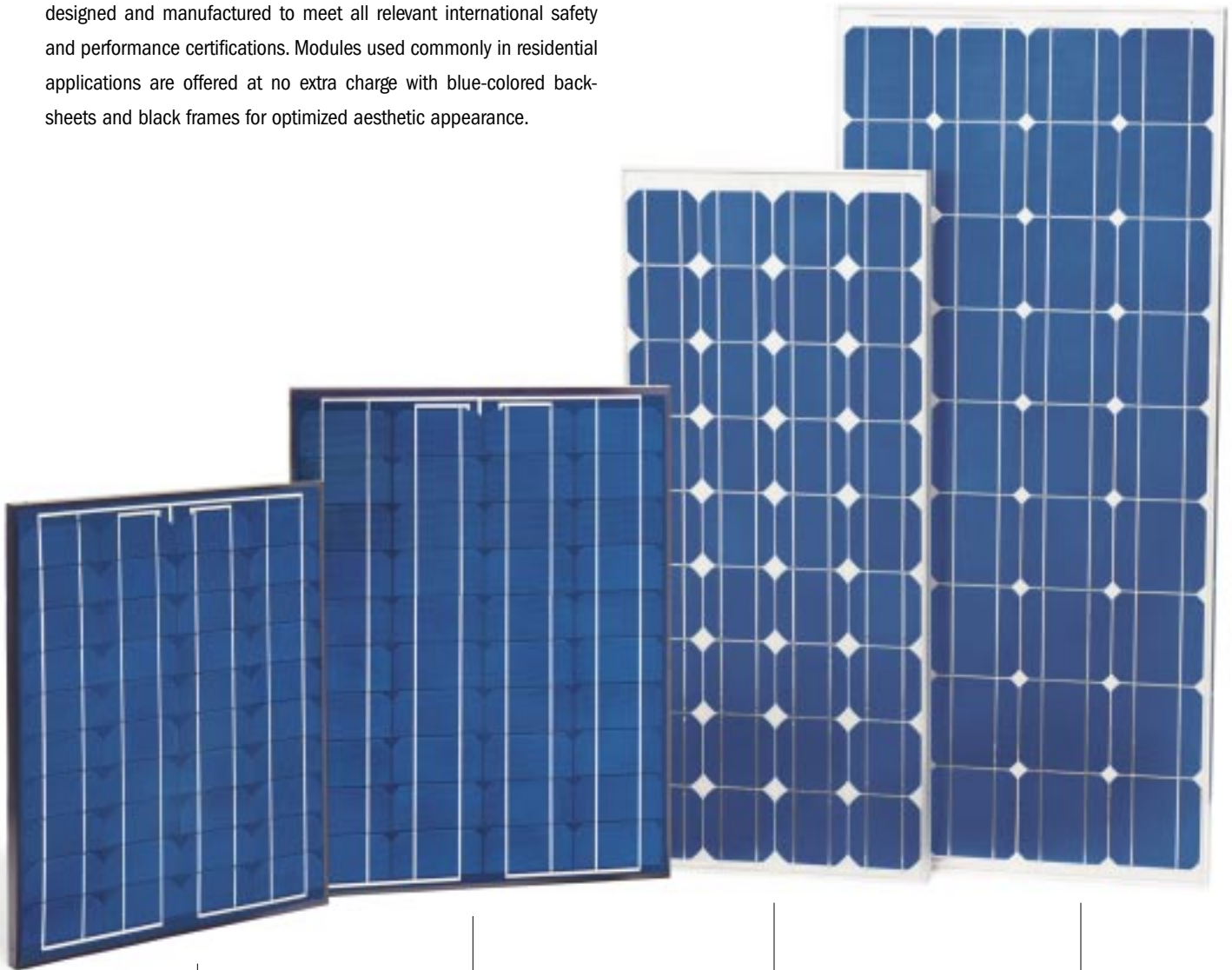
## AP-6 / 3BB

**Size:** 6" (155 mm)  
pseudo-square  
**Type:** Single crystal  
**Nominal power:** 3.3 watts  
**Typical application:** Small modules, consumer products

\* BIPV = Building Integrated Photovoltaic products

## ASTROPOWER MODULES

AstroPower's module line spans a range from 30 watts to 140 watts, utilizing both single crystal solar cells as well as APex™ polycrystalline silicon solar cells. From remote homes to multi-megawatt utility power plants, one of AstroPower's modules is just right for your application. All AstroPower modules carry a 20-year limited warranty, and are designed and manufactured to meet all relevant international safety and performance certifications. Modules used commonly in residential applications are offered at no extra charge with blue-colored back-sheets and black frames for optimized aesthetic appearance.



### AP-30

**Rated Power:** 30 watts

**Dimensions:** 20.8" x 27.9"  
(527mm x 709mm)

**Solar Cell Type:** Single Crystal

**Typical applications:** Single module applications – rural power; single-module industrial.

### AP-50

**Rated Power:** 50 watts

(also available in 45 watts)  
**Dimensions:** 26.0" x 33.8"  
(661mm x 859mm)

**Solar Cell Type:** Single Crystal

**Typical applications:** Rural power; small-array industrial.

### AP-75

**Rated Power:** 75 watts

(also available in 65 watts)  
**Dimensions:** 20.8" x 47.3"  
(527mm x 1201mm)

**Solar Cell Type:** Single Crystal

**Typical applications:** Small array applications – off-grid residential; remote telecommunications.

### AP-120

**Rated Power:** 120 watts

(also available in 110 and 100 watts)  
**Dimensions:** 26.0" x 58.1"  
(660mm x 1476mm)

**Solar Cell Type:** Single Crystal

**Typical applications:** Large array applications – grid-connected residential, commercial, industrial.





#### **APx-140**

**Rated Power:** 140 watts  
(also available in 120 and 130 watts)  
**Dimensions:** 34.5" x 77.2"  
(976mm x 1961mm)  
**Solar Cell Type:** APex™ Polycrystalline  
**Typical applications:** Large array applications – grid-connected multi-MW scale projects.

#### **APx-75**

**Rated Power:** 75 watts  
(also available in 65 watts)  
**Dimensions:** 26.0" x 56.8"  
(661mm x 1445mm)  
**Solar Cell Type:** APex™ Polycrystalline  
**Typical applications:** Small array applications – grid-connected residential; off-grid residential; remote telecommunications.

#### **APx-50**

**Rated Power:** 50 watts  
(also available in 40 and 45 watts)  
**Dimensions:** 26.0" x 39.1"  
(661mm x 994mm)  
**Solar Cell Type:** APex™ Polycrystalline  
**Typical applications:** Single module applications – rural power; small-array industrial.

## ASTROPOWER SYSTEMS

AstroPower offers a range of complete solar power systems for homes connected to the electric utility grid, providing a cleaner and more reliable alternative. Our SunChoice™ solar electric home power systems lead the industry in ease of installation and performance. These systems, designed to provide years of automatic operation, come complete with AstroPower modules,

plug-and-play wiring, power electronics, patented mounting kits for roof or ground mounting, a power meter to monitor performance, and complete documentation for contractors and homeowners. Available with or without an Uninterruptible Power Supply (UPS), these SunChoice™ systems make solar electric home power affordable and simple.



### SunLine™

AstroPower SunLine™ systems generate the most solar power for the dollar. Once installed, they provide solar electric power through the home's existing circuits. Any electricity not immediately used is delivered to the utility grid, spinning the utility meter backwards so the homeowner gets full monetary credit for the excess production.

### SunUPS™

AstroPower SunUPS™ systems work exactly the same way as our SunLine™ systems, except they come equipped with batteries to provide the home with power during utility blackouts, day or night. Our SunUPS™ systems not only reduce electric bills, they also provide a cleaner, greener reliable source of electricity.



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