

## Konarka Power Plastic® 20 Series Product Specifications

Konarka Power Plastic 20 Series panels are ideal for charging batteries for portable electronic devices. Connect in series for increased voltage, and remote power applications.

### Material Characteristics

Power Plastic is a lightweight, thin-film photovoltaic material that is much more versatile in application than traditional solar panels. Konarka's unique technology is based on patented photo-reactive materials made from conductive polymers and organic nano-engineered materials. These materials can be printed or coated onto flexible plastic using an inexpensive, energy-efficient manufacturing process.

Power Plastic reacts with both indoor and outdoor light, greatly expanding its potential applications. By integrating Power Plastic into everyday products, devices can produce their own low-cost source of renewable energy.

### Outdoor Performance

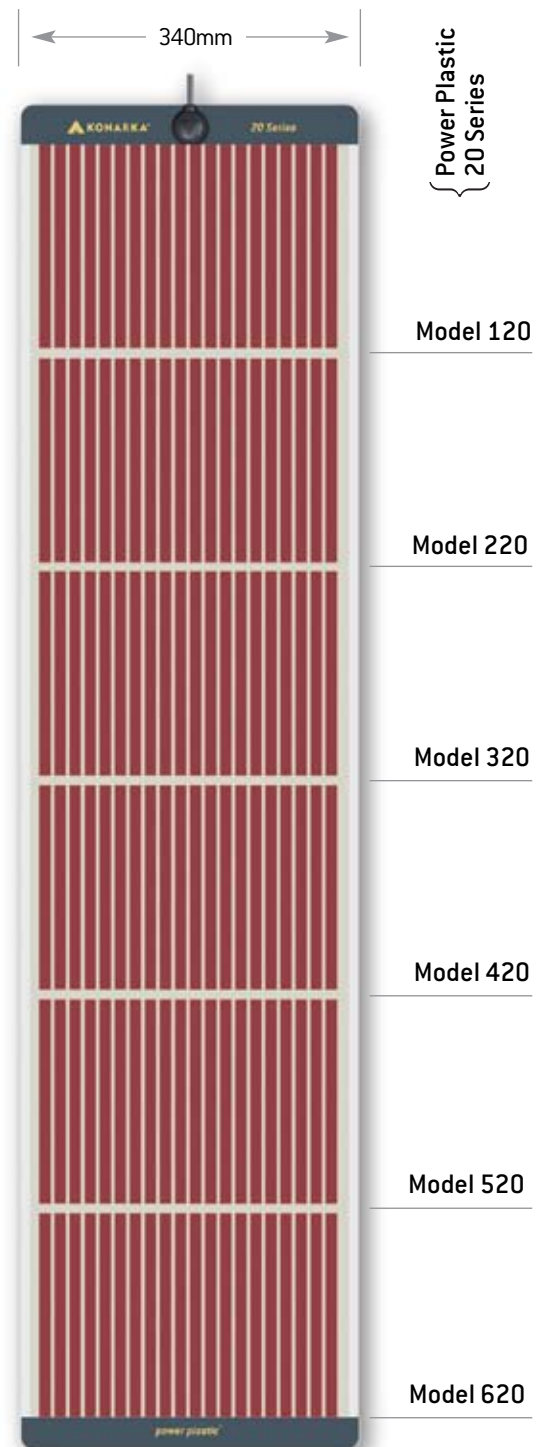
| Electrical Data |                   | Units | 1 Sun |      |       | 1/2 Sun |     |       |
|-----------------|-------------------|-------|-------|------|-------|---------|-----|-------|
| All 20 Series   | Vmpp              | V     | 8.0   |      |       | 8.2     |     |       |
|                 | Voc               | V     | 11.1  |      |       | 10.8    |     |       |
|                 | Imp / Isc         | mA    | Imp   | Isc  | Watts | Imp     | Isc | Watts |
|                 | Power Plastic 120 |       | 158   | 199  | 1.3   | 78      | 96  | 0.6   |
|                 | Power Plastic 220 |       | 317   | 397  | 2.6   | 156     | 192 | 1.3   |
|                 | Power Plastic 320 |       | 475   | 596  | 3.8   | 234     | 288 | 1.9   |
|                 | Power Plastic 420 |       | 634   | 795  | 5.1   | 313     | 384 | 2.6   |
|                 | Power Plastic 520 |       | 792   | 993  | 6.4   | 391     | 481 | 3.2   |
|                 | Power Plastic 620 |       | 951   | 1192 | 7.7   | 469     | 577 | 3.8   |

### Construction Characteristics

- **Material thickness:**  
0.5mm+/-0.05mm
- **Operating temperature range:**  
-20°C to 65°C (-4°F to 149°F)
- **Weatherproof materials**
- **By-pass/blocking diode optional**
- **User friendly design:**  
Easily integrated
- **Laminate encapsulation:**  
High light transmissive polymer
- **Power terminals:**  
*Option 1:* Solderable leads  
*Option 2:* Junction box with barrel connector
- **Available with corner grommets**

### Panel Dimensions

|                   | length (mm) | width (mm) |
|-------------------|-------------|------------|
| Power Plastic 120 | 260         | 340        |
| Power Plastic 220 | 487         | 340        |
| Power Plastic 320 | 700         | 340        |
| Power Plastic 420 | 913         | 340        |
| Power Plastic 520 | 1127        | 340        |
| Power Plastic 620 | 1340        | 340        |



### Scalable Energy Independence

The Power Plastic 20 Series is available in 5 standard sizes, and can be built to any length for custom applications.