

Konarka Power Plastic® 20 Series Product Specifications

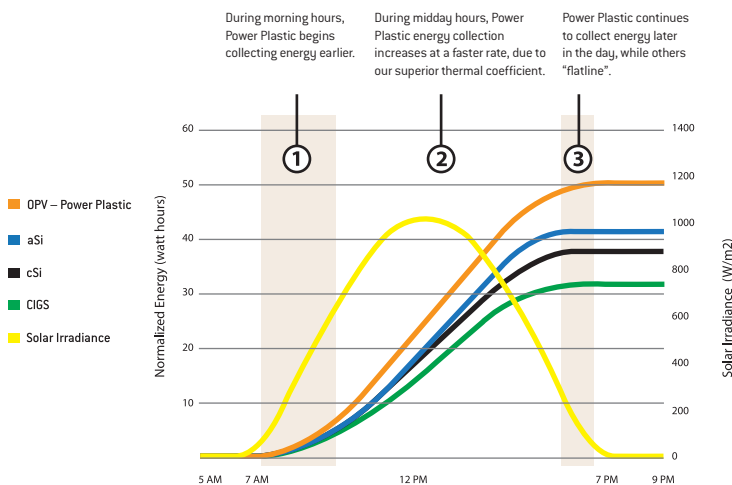
Konarka Power Plastic 20 Series panels are ideal for charging batteries for portable electronic devices. Connect in series for increased voltage, and remote power applications.

Material Characteristics

Power Plastic is a lightweight, thin-film, organic solar material, much more versatile than traditional solar panels. Konarka's unique technology is based on patented photo-reactive materials made from conductive polymers and organic nano-engineered materials.

Aesthetically beautiful, silent, and powerful, Power Plastic outperforms others in total energy collected over the course of a day. Our low-light sensitivity enables us to generate energy earlier — and longer — than our competitors, in full or partial sun. Thin, flexible and semi-transparent, Power Plastic conforms to a variety of shapes and contours offering design freedom like never before.

Total Energy Collected

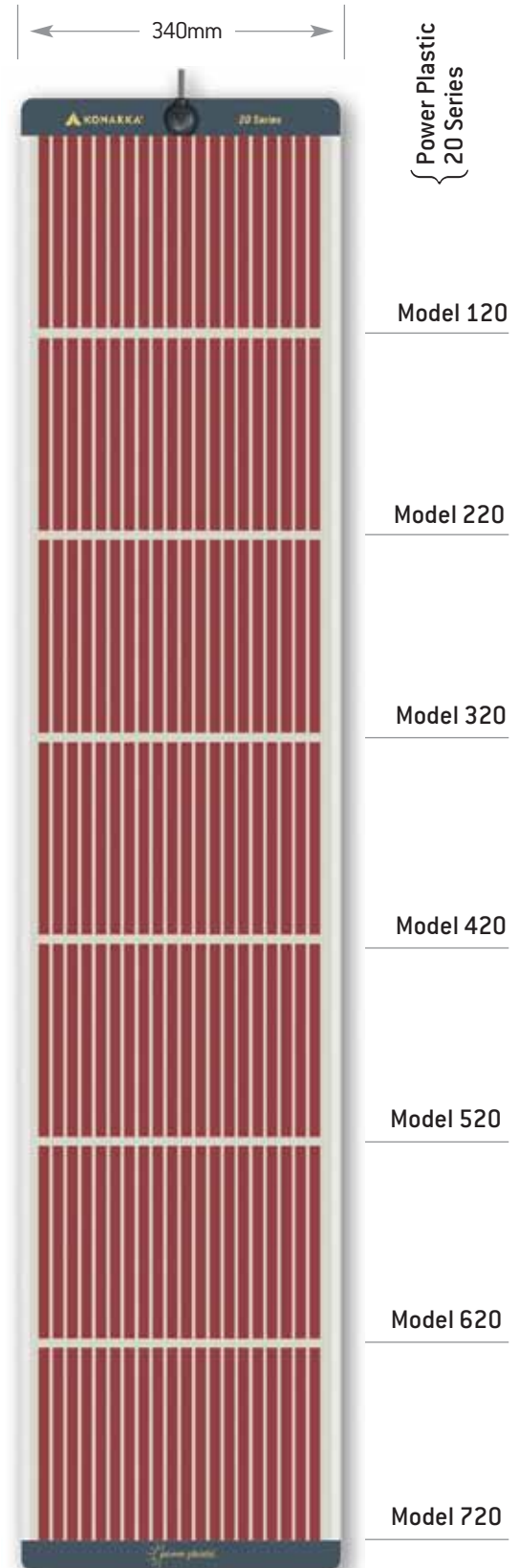


Construction Characteristics

- **Operating temperature range:** -20°C to 65°C [-4°F to 149°F]
- **Weatherproof materials**
- **User friendly design:** Easily integrated
- **Laminate encapsulation:** High light transmissive polymer
- **Power terminals:**
 - Option 1:* Solderable leads
 - Option 2:* Konarka junction box with cable and barrel connector
 - Option 3:* Konarka junction box with cable and voltage regulator
- **Available with corner grommets**

Scalable Energy Independence

The Power Plastic 20 Series is available in 7 standard sizes, and can be built to any length for custom applications.

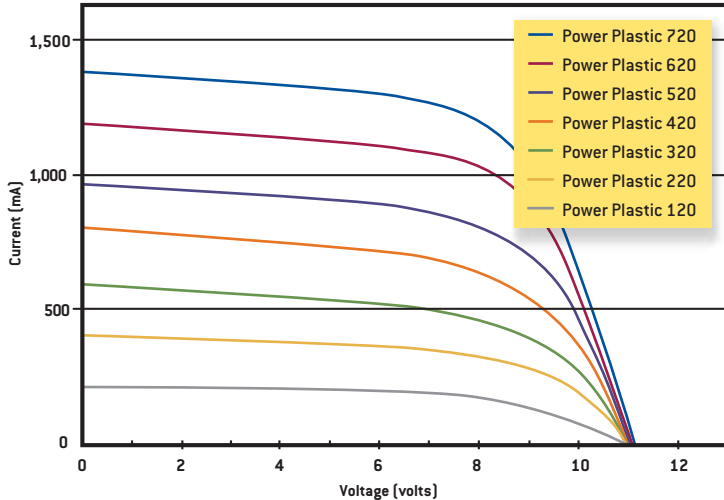


20 Series



Konarka Power Plastic® 20 Series

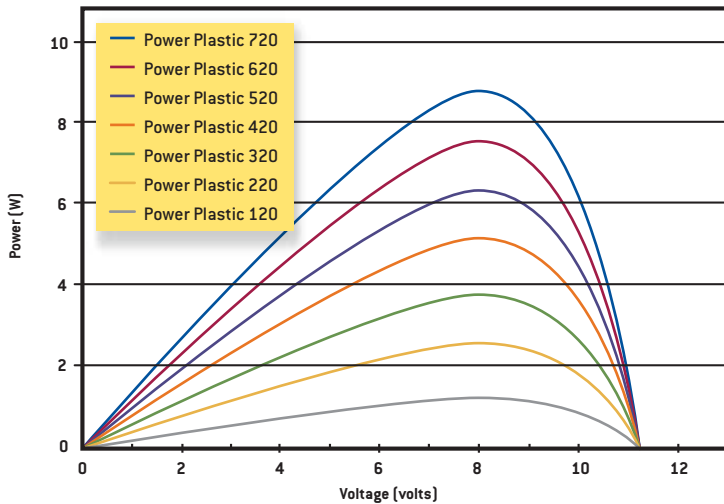
Power Plastic 20 Series: IV Curves



Outdoor Performance

Electrical Data		Units	1 Sun			1/2 Sun		
All 20 Series	V _{mpp}	V	7.9			7.6		
	V _{oc}	V	11.3			10.9		
	I _{mpp} / I _{sc}	mA	I _{mpp}	I _{sc}	Watts	I _{mpp}	I _{sc}	Watts
	Power Plastic 120		156	194	1.2	77	97	0.6
	Power Plastic 220		313	389	2.5	155	194	1.2
	Power Plastic 320		469	583	3.7	232	292	1.8
	Power Plastic 420		625	777	4.9	310	389	2.4
	Power Plastic 520		782	972	6.2	387	486	2.9
	Power Plastic 620		938	1166	7.4	464	583	3.5
	Power Plastic 720		1095	1360	8.6	542	680	4.1

Power Plastic 20 Series: Power Curves



Panel Dimensions

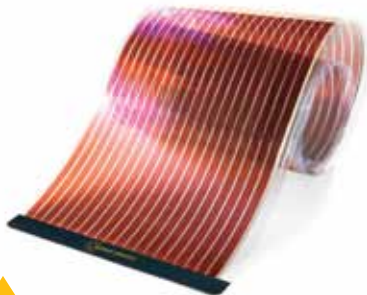
	length (mm)	width (mm)
Power Plastic 120	273	340
Power Plastic 220	487	340
Power Plastic 320	700	340
Power Plastic 420	913	340
Power Plastic 520	1127	340
Power Plastic 620	1340	340
Power Plastic 720	1553	340

Temperature Range

Operating Temperature	-20°C to 65°C [-4°F to 149°F]
Storage Temperature	-40°C to 75°C [-40°F to 167°F]

Temperature Coefficients

P_{max}	+0.05%/°C (based on air temperature)
V_{mpp}	-0.27%/°C (based on air temperature)
V_{oc}	-0.21%/°C (based on air temperature)



Semi-transparent Konarka Power Plastic

takes light in and delivers power out. When integrated into products, this direct current (DC) electrical energy can be used immediately or stored for later use.

The initial electrical characteristics are within +/- 10% of nameplate values under standard test conditions.

Headquarters: Lowell, MA, USA

Manufacturing: New Bedford, MA, USA

R&D Facilities: Lowell, MA, USA; Linz, Austria; Nürnberg, Germany

Sales Offices: Lowell, MA, USA; Nürnberg, Germany; Tokyo, Japan

Contact us via www.konarka.com or call +1-978-569-1400