

185 WATT

BIG POWER. REVOLUTIONARY DESIGN.

SINGLE CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 185W MAXIMUM POWER

This single crystal 185 watt module features 17.5% encapsulated cell efficiency and 14.2% module efficiency—the highest efficiency commercially available. Using breakthrough technology perfected by Sharp's nearly 45 years of research and development, these modules use a textured cell surface to reduce reflection of sunlight, and BSF (Black Surface Field) structure to improve conversion efficiency. An anti-reflective coating provides a uniform blue color and increases the absorption of light in all weather conditions. Common applications include office buildings, cabins, solar power stations, solar villages, radio relay stations, beacons, and traffic lights. Ideal for grid-connected systems and designed to withstand rigorous operating conditions, Sharp's NT-185U1 modules offer the maximum usable power per square foot of solar array.



Solder-coated grid results in high fill factor performance under low light conditions.



Sharp multi-purpose modules offer industry-leading performance for a variety of applications.

FEATURES

- High-power module (185W) using 125mm square single crystal silicon solar cells with 14.2% module conversion efficiency
- Photovoltaic module with bypass diode minimizes the power drop caused by shade
- Textured cell surface to reduce the reflected sunlight and BSF (Black Surface Field) structure to improve cell conversion efficiency: 17.5%
- White tempered glass, EVA resin, and a weatherproof film, plus aluminum frame for extended outdoor use
- Nominal 24VDC output, perfect for grid-connected systems
- UL Listings: UL 1703, cUL
- Sharp modules are manufactured in ISO 9001 certified facilities
- 25-year limited warranty

ELECTRICAL CHARACTERISTICS

Cell	Single crystal silicon
No. of Cells and Connections	72 in series
Open Circuit Voltage (Voc)	44.9V
Maximum Power Voltage (Vpm)	36.2V
Short Circuit Current (Isc)	5.75A
Maximum Power Current (Ipm)	5.11A
Maximum Power (Pm)*	185W
Minimum Power (Pm)*	166.5W
Encapsulated Solar Cell Efficiency (ηc)	17.48%
Module Efficiency (ηm)	14.23%
PTC Rating (W)**	162.43
Maximum System Voltage	600VDC
Series Fuse Rating	10A
Type of Output Terminal	Lead Wire with MC Connector

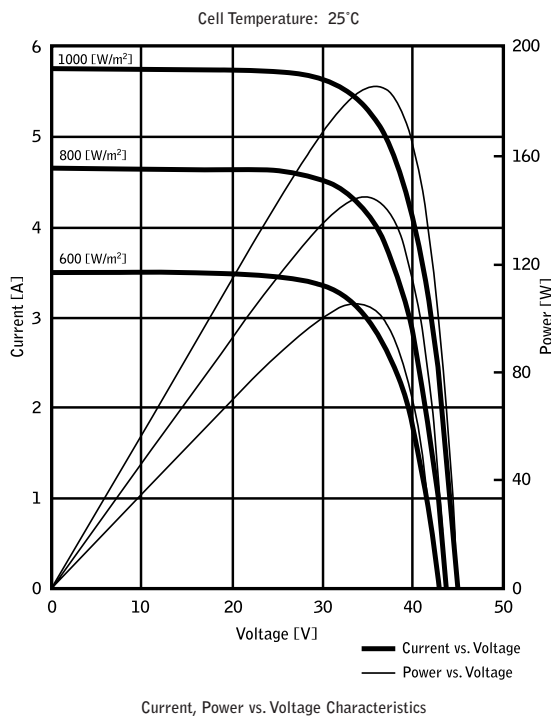
MECHANICAL CHARACTERISTICS

Dimensions (A x B x C below)	62.01 x 32.52 x 1.81" / 1575 x 826 x 46mm
Weight	37.485lbs / 17.0kg
Packing Configuration	2 pcs per carton
Size of Carton	66.93 x 38.19 x 5.12" / 1700 x 970 x 130mm
Loading Capacity (20 ft container)	168 pcs (84 cartons)
Loading Capacity (40 ft container)	392 pcs (196 cartons)

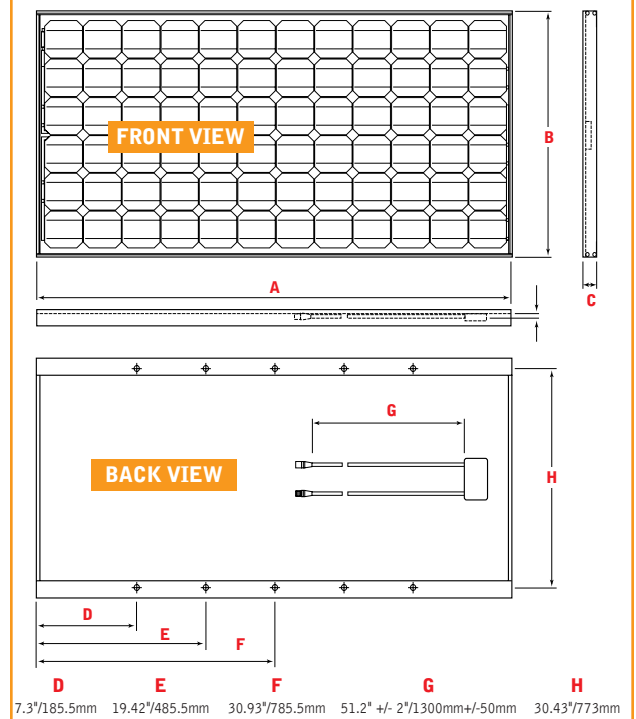
ABSOLUTE MAXIMUM RATINGS

Operating Temperature	-40 to 194°F / -40 to +90°C
Storage Temperature	-40 to 194°F / -40 to +90°C
Dielectric Isolation Voltage	2200 VDC max.

IV CURVES



DIMENSIONS



Specifications are subject to change without notice.

* (STC) Standard Test Conditions: 25°C, 1 kW/m², AM 1.5
 ** (PTC) Pacific Test Conditions: 20°C, 1 kW/m², AM 1.5, 1 m/s wind speed

In the absence of confirmation by product manuals, Sharp takes no responsibility for any defects that may occur in equipment using any Sharp devices.
 Contact Sharp to obtain the latest product manuals before using any Sharp device.

