

# 80 WATT

POWERFUL PERFORMANCE. SHARP RELIABILITY.

## MULTI-CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 80W MAXIMUM POWER

Sharp's NE-80U1 photovoltaic modules offer industry-leading performance, durability, and reliability for a variety of electrical power requirements. 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 RVs, cabins, solar power stations, pumps, beacons, and lighting equipment. Designed to withstand rigorous operating conditions, Sharp's NE-80U1 modules are a perfect combination of advanced technology and superior reliability.



*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 (80W) using 125mm square multi-crystal silicon solar cells with 12.60% module conversion efficiency
- Photovoltaic module with bypass diode minimizes the power drop caused by shade
- Improved cell conversion efficiency: 14.11%
- Water white, tempered glass, EVA laminate, plus aluminum frame for extended outdoor use
- Nominal 12VDC output for battery charging applications
- UL Listings: UL 1703, cUL
- Sharp modules are manufactured in ISO 9001 certified facilities
- 25-year limited warranty

## ELECTRICAL CHARACTERISTICS

Cell	Multi-crystal silicon
No. of Cells and Connections	36 in series
Open Circuit Voltage (Voc)	21.3V
Maximum Power Voltage (Vpm)	17.1V
Short Circuit Current (Isc)	5.3A
Maximum Power Current (Ipm)	4.67A
Maximum Power (Pm)*	80W
Minimum Power (Pm)*	72W
Encapsulated Solar Cell Efficiency ( $\eta_c$ )	14.11%
Module Efficiency ( $\eta_m$ )	12.60%
PTC Rating (W)**	70.24
Maximum System Voltage	600VDC
Series Fuse Rating	10A
Type of Output Terminal	Lead Wire with MC Connector

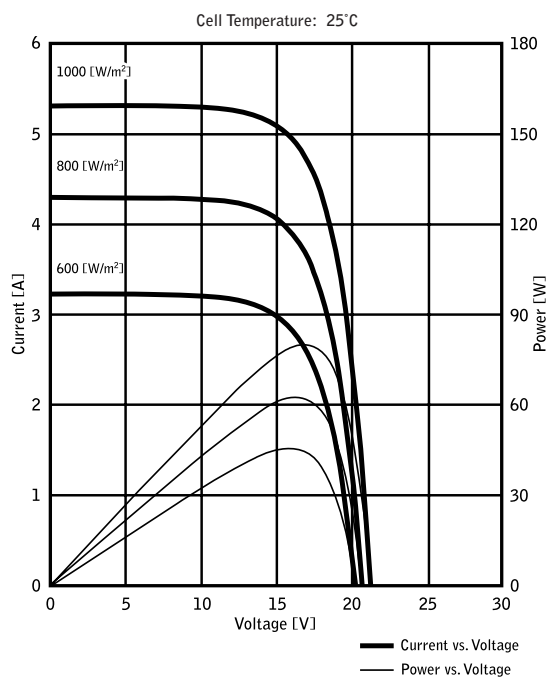
## MECHANICAL CHARACTERISTICS

Dimensions (A x B x C below)	47.28 x 20.88 x 1.38" / 1200 x 530 x 35mm
Weight	18.74lbs / 8.5kg
Packing Configuration	2 pcs per carton
Size of Carton	53.15 x 27.56 x 4.33" / 1350 x 700 x 110mm
Loading Capacity (20 ft container)	308 pcs (154 cartons)
Loading Capacity (40 ft container)	644 pcs (322 cartons)

## ABSOLUTE MAXIMUM RATINGS

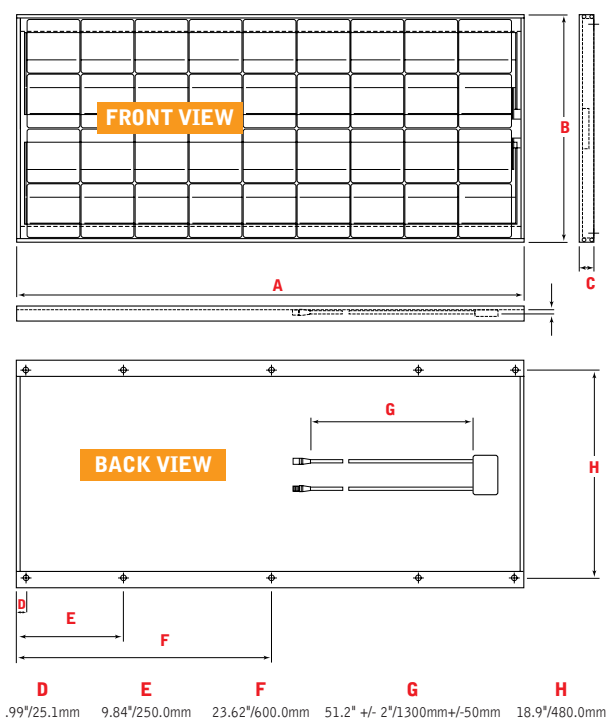
Operating Temperature	-40 to 194°F / -40 to +90°C
Storage Temperature	-40 to 194°F / -40 to +90°C
Dielectric Isolation Voltage	2200 VDC max.

## IV CURVES



Current, Power vs. Voltage Characteristics

## DIMENSIONS



Specifications are subject to change without notice.

\* (STC) Standard Test Conditions: 25°C, 1 kW/m<sup>2</sup>, AM 1.5\*\* (PTC) Pacific Test Conditions: 20°C, 1 kW/m<sup>2</sup>, 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.

