

# 80 WATT



## 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.

Textured cell surface to reduce the reflection of sunlight and BSF (Black Surface Field) structure to improve cell conversion efficiency: 14.11%.

White tempered glass, EVA resin, and a weatherproof film, plus aluminum frame for extended outdoor use.

Nominal 12 volt output for battery charging applications

Output terminal: Lead wire with waterproof connector

## CLEAN, SAFE, RELIABLE SOLAR ENERGY FROM SHARP

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

A safe, clean, reliable source of energy, Sharp's NE-80E1U photovoltaic module is designed for a variety of electrical power requirements. Based on the technology of crystal silicon solar cells developed over 35 years, this module has superb durability to withstand rigorous operating conditions and is suitable for use in most solar systems.

Common applications for the Sharp NE-80E1U include private residences, RVs, cabins and vacation homes, solar power stations, pumps, beacons and lighting equipment. As the world's leading manufacturer of photovoltaic modules, Sharp produces an extensive line of high power modules for every electrical power requirement.

## APPLICATIONS

- Residences
- Solar Power Stations
- Radio Relay Stations
- Cabins and Vacation Homes
- Lighting Equipment
- RVs
- Solar Villages
- Pumps
- Beacons
- Traffic Signs

## HANDLING SPECIFICATIONS

Packing Condition	2 pcs - 1 Carton
Size of Carton	135 x 70 x 11cm / 53.19 x 27.58 x 4.334"
Loading Capacity (20ft container)	288 pcs - 144 carton
Loading Capacity (40ft container)	600 pcs - 300 carton

## SPECIFICATIONS

Cell	Multi-crystal silicon solar cells
	125mm square
No. of cells and connections	36 in series
Application	Battery Charging System
Maximum system voltage	DC 600V
Series fuse rating	10A
Maximum power	72.0W (Min)
Dimensions	1200 x 530 x 35mm / 47.28 x 20.88 x 1.379"
Weight	8.5 kg / 18.743 lbs

## ABSOLUTE MAXIMUM RATINGS

Parameters	Rating	Unit
Operating Temperature	-40 to +90	°C
Storage Temperature	-40 to +90	°C
Dielectric Voltage Withstood	2200 max.	V-DC

## OUTPUT TERMINAL

Type of Output Terminal	Lead Wire with MC Connector
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## ELECTRO-OPTICAL CHARACTERISTICS: NE-80E1U

Parameters	Symbol	Min.	Typ.	Unit	Condition
Open Circuit Voltage	V <sub>oc</sub>	–	21.3	V	Irradiance: 1000 W/m <sup>2</sup>
Maximum Power Voltage	V <sub>pm</sub>	–	17.1	V	
Short Circuit Current	I <sub>sc</sub>	–	5.31	A	
Maximum Power Current	I <sub>pm</sub>	–	4.67	A	Module Temperature: 25 °C
Maximum Power	P <sub>m</sub>	72.0	80.0	W	
Encapsulated Solar Cell Efficiency	η <sub>c</sub>	–	14.11	%	
Module Efficiency	η <sub>m</sub>	–	12.60	%	
PTC Rating – 87.80					

Specifications are subject to change without notice.

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