



## SOLAR MODULES

### SOLAR MODULE SHARP 80 WATTS NE-80E2E

MULTI-CRYSTALLINE SILICON PHOTOVOLTAIC MODULE WITH 80W MAXIMUM POWER

#### GENERAL DESCRIPTION

SHARP NE-80E2E photovoltaic module is designed for large electrical power requirements. Based on the technology of crystal silicon solar cells cultivated for over 35 years, this module has superb durability to withstand rigorous operating conditions and is suitable for grid connected systems.

#### FEATURES

- High-power module (80W) using 125mm square multi - crystal silicon solar cells with 12.6% module conversion efficiency.
- Photovoltaic module with bypass diode minimizes the power drop caused by shade. Anti Reflection coating and BSF (Back Surface Field) structure to improve cell conversion efficiency: 14%.
- Using white tempered glass, EVA resin, and a weatherproof film along with an aluminum frame for extended outdoor use.
- DC 12V system 5 Output terminal: Lead wire with waterproof connector

#### APPLICATION

- Grid connected residential systems
- Office buildings
- Solar power stations
- Solar villages
- Villas, mountain cottages
- Pumps
- Lighting equipment
- Traffic signs
- Radio relay stations
- Beacons
- Telemeter systems
- Telecommunication systems

#### SPECIFICATION

Cells	Multi-crystalline silicon solar cells, 125mm square
No. of cells and connections	36 in series
Application	DC 12 V system
Maximum system voltage	DC 600V
Series fuse rating	10A <b>Maximum</b>
power	76.0 W (Min)
Dimensions (H) x (W) x (D)	1200 x 530 x 35mm
Weight	8.5kg

#### ABSOLUTE MAXIMUM RATINGS

Parameter	Rating	Unit
Operating Temperature	-40 to +90	°C
Storage Temperature	-40 to +90	°C
Dielectric Isolation Voltage	2200	VDC max.

#### OUTPUT TERMINAL

Type of output terminal	Load wire with connector
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#### ELECTRO-OPTICAL CHARACTERISTICS

MODEL	NE-80E2E				
Parameters	Symbol	Min.	Type.	Unit	Condition
Open circuit voltage	Voc	21.3		V	Irradiance: 1000 W/m <sup>2</sup>
Maximum power voltage	Vmp	17.1		V	
Short circuit current	Isc	5.31		A	
Maximum power current	Imp	4.67		A	Modules temperature: 25 °C
Maximum power	mp	76.0	80.0	W	
Encapsulated solar cell efficiency	ηc	14.0		%	
Module efficiency	ηm	12.6		%	

