

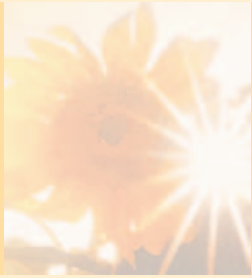
SHARP

..... *be sharp*

NE80E2E

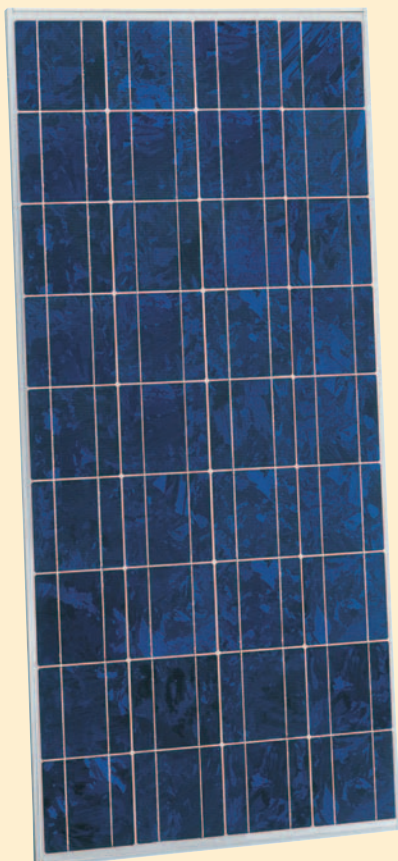
80 W

Photovoltaic module polycrystalline



POLYCRYSTALLINE SILICON PHOTOVOLTAIC MODULE WITH 80 W MAXIMUM POWER

Sharp's NE80E2E photovoltaic module is designed for large electrical power requirements. Based on the technology of crystal silicon solar cells cultivated for over 40 years, this module has superb durability to withstand rigorous operating conditions and is suitable for grid connected systems.



Features

- High-power module (80 W) using 125.5 mm square polycrystalline silicon solar cells with 12.6 % module conversion efficiency
- Photovoltaic module with bypass diode minimises the power drop caused by shade. Anti reflection coating and BSF (Back Surface Field) structure to improve cell conversion efficiency: 14.0 %
- Using white tempered glass, EVA resin, and a weather-proof film along with an aluminium frame for extended outdoor use
- DC 12 V system
- Output terminal: Lead wire with waterproof connector

Specifications NE80E2E

Cell	Polycrystalline silicon solar cells, 125.5 mm square
No. of cells and connections	36 in series
Application	DC 12 V system
Maximum system voltage	DC 540 V
Series fuse rating	10 A
Nominal power	80 W
Dimensions	1,200 x 530 x 35 mm
Weight	8.5 kg
Type of output terminal	Lead wire with connector

Absolute maximum ratings

Parameters	Rating	Unit
Operating temperature	-40 to +90	°C
Storage temperature	-40 to +90	°C

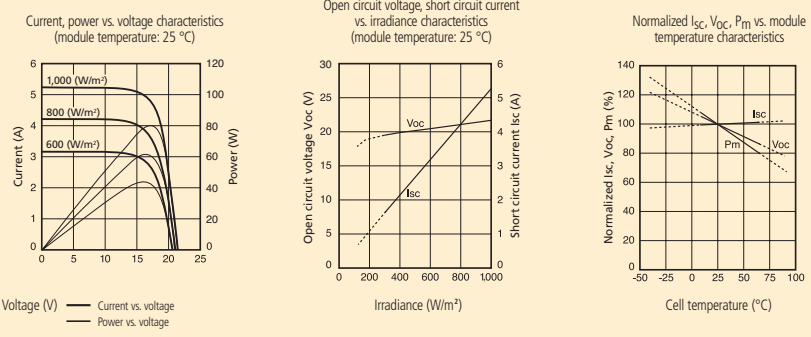
Temperature coefficients

αP_m	-0.485% / °C
αI_{SC}	+0.053% / °C
αV_{OC}	-78.1 mV / °C

Electro-optical characteristics

Parameters	Symbol	Min.	Typ.	Unit	Conditions
Open circuit voltage	V_{OC}	—	21.3	V	Standard test conditions (STC)
Maximum power voltage	V_{PM}	—	17.1	V	
Short circuit current	I_{SC}	—	5.31	A	
Maximum power current	I_{PM}	—	4.67	A	Irradiance: 1,000 W/m ²
Maximum power	P_m	76.0	80.0	W	
Encapsulated solar cell efficiency	η_c	—	14.0	%	Module temperature: 25 °C
Module efficiency	η_m	—	12.6	%	

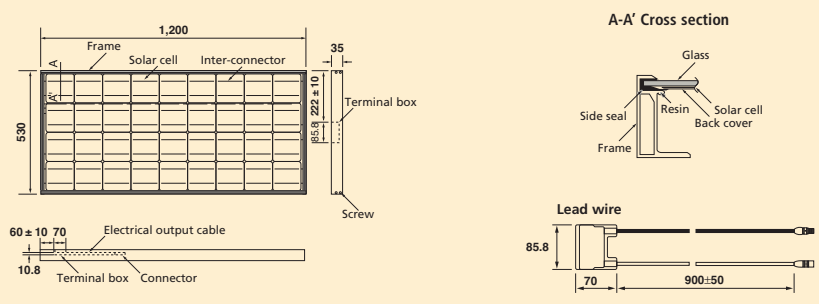
Characteristics



Applications

- 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

Outline dimensions



In the absence of confirmation by specification sheets, Sharp takes no responsibility for any defects that may occur in equipment using any Sharp products shown in catalogs, data books, etc. Contact Sharp in order to obtain the latest specification sheets before using any Sharp products.

Specifications are subject to change without notice.



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