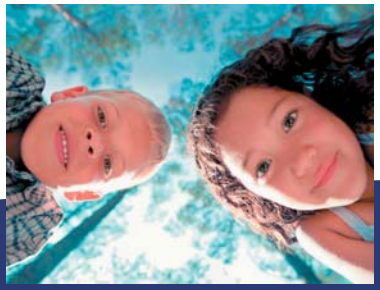
SHARP

NE-80E2E

Multi-Crystalline Silicon Photovoltaic Module with 80W Maximum Power

GENERAL DESCRIPTION

SHARP's 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

1. High-power module (80W) using 125mm square multi - crystal silicon solar cells with 12.6% module conversion efficiency.
2. 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%.
3. Using white tempered glass, EVA resin, and a weatherproof film along with an aluminum frame for extended outdoor use.
4. DC 12V system
5. Output terminal: Lead wire with waterproof connector

FINDING ENERGY FOR THE FUTURE

Sharp Electronics (UK) Ltd, Sharp House, Thorp Road, Manchester M40 5BE, UK. www.sharp.co.uk

SPECIFICATIONS

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

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

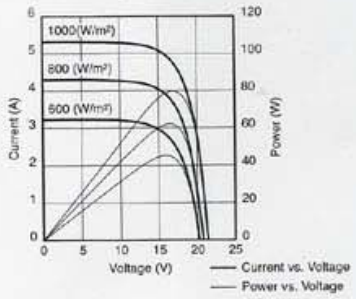
Type of output terminal	Lead wire with connector

ELECTRO-OPTICAL CHARACTERISTICS

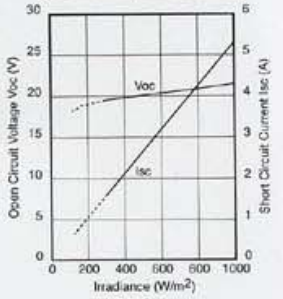
Model		**NE-80E2E**			
Parameters	**Symbol**	**Min.**	**Typ.**	**Unit**	**Condition**
Open circuit voltage	Voc	—	21.3	V	Irradiance: 1000 W/m² Module temperature: 25°C
Maximum power voltage	Vpm	—	17.1	V	
Short circuit current	Isc	—	5.31	A	
Maximum power current	Ipm	—	4.67	A	
Maximum power	Pm	76.0	80.0	W	
Encapsulated solar cell efficiency	ηc	—	14.0	%	
Module efficiency	ηm	—	12.6	%	

CHARACTERISTICS

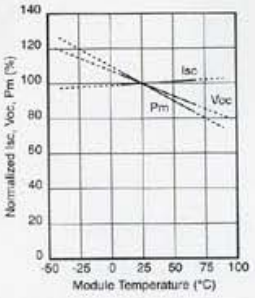
Current, Power vs. Voltage Characteristics (Module temperature: 25°C)



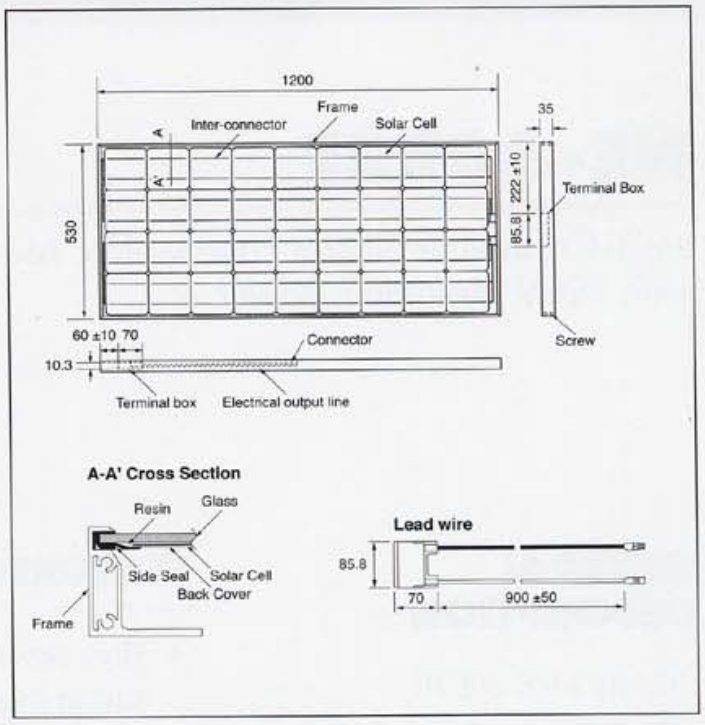
Open Circuit Voltage, Short Circuit Current vs. Irradiance Characteristics (Module temperature: 25°C)



Normalized Isc, Voc, Pm vs. Module Temperature Characteristics



OUTLINE DIMENSIONS



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

SHARP

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For further details visit the Solar Power section at www.sharp.co.uk/solar