

170 WATT

**BIG POWER,
SMALL FOOTPRINT**



FEATURES

- High-power module (170W) using 125mm square single crystal silicon solar cells with 13.1% module conversion efficiency
- Photovoltaic module with bypass diode minimises the power drop caused by shade
- Textured cell surface to reduce the reflection of sunlight and BSF (Back Surface Field) structure to improve cell conversion efficiency: 16%
- White tempered glass, EVA resin and a weatherproof film, plus aluminum frame for extended outdoor use
- Nominal 24 DC output, perfect for grid connected and standalone systems
- Output terminal: Lead wire with waterproof connector
- Certifications: IEC 61215
- SHARP modules are manufactured in ISO 9001 certified factories

SINGLE CRYSTAL SILICON PHOTOVOLTAIC MODULE WITH 170W MAXIMUM POWER

This single crystal 170watt module features 16% encapsulated cell efficiency and 13.1% module efficiency. Using breakthrough technology perfected in Sharp's space cell program, the **NT-ROE3E** module allows for maximum usable power per square metre of solar array.

A safe, clean, reliable source of energy, Sharp's NT-ROE3E photovoltaic module is designed for large electrical power requirements. Based on the technology of crystal silicon solar cells developed over 45 years, this module has superb durability to withstand rigorous operating conditions and is suitable for grid connected systems.

Common applications for the Sharp NT-ROE3E include residences, office buildings, solar power stations, solar suburbs, radio relay stations, beacons and traffic lights. As the world's leading manufacturer of photovoltaic modules, Sharp produces an extensive line of high power modules for every electrical power requirement.

SHARP

NT-ROE3E – MAXIMUM POWER

ELECTRICAL CHARACTERISTICS

Cell	Single crystal silicon solar cells
No. of Cells and Connections	72 in series
Open Circuit Voltage (Voc)	44.2
Maximum Power Voltage (Vpm)	35.0
Short Circuit Current (Isc)	5.30
Maximum Power Current (Ipm)	4.86
Maximum Power (Pm) ¹	170.0
Encapsulated Solar Cell Efficiency (ηc)	16.0
Module Efficiency (ηm)	13.1
Maximum System Voltage	DC 1000V
Series Fuse Rating	10A
Type of Output Terminal	Lead Wire with MC Connector

Specifications are subject to change without notice
¹ (STC) Standard Test Conditions: 25°C, 1 kW/m², AM 1.5

MECHANICAL CHARACTERISTICS

Dimensions (A x B x C below)	1575 x 826 x 46mm
Weight	17.0kg
Packing Condition	2 pcs - 1 Carton
Size of Carton	1700 x 970 x 130mm

ABSOLUTE MAXIMUM RATINGS

Parameters	Rating	Unit
Operating Temperature	-40 to +90	°C
Storage Temperature	-40 to +90	°C
Dielectric Voltage Withstood	3000 max.	V-DC

IV CURVES

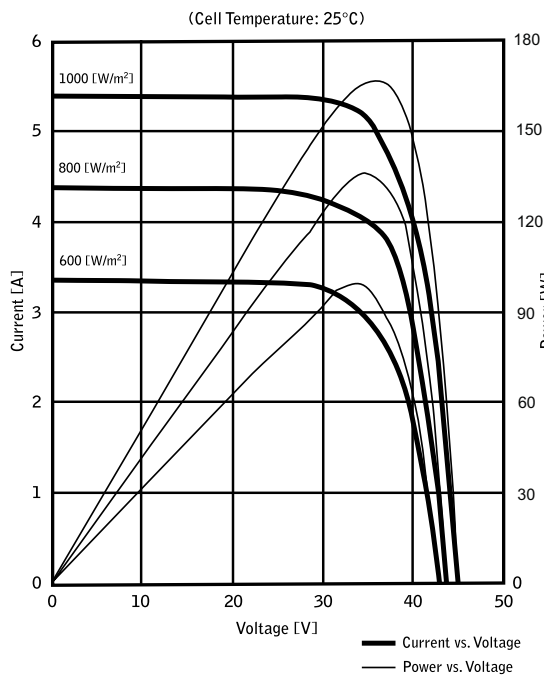
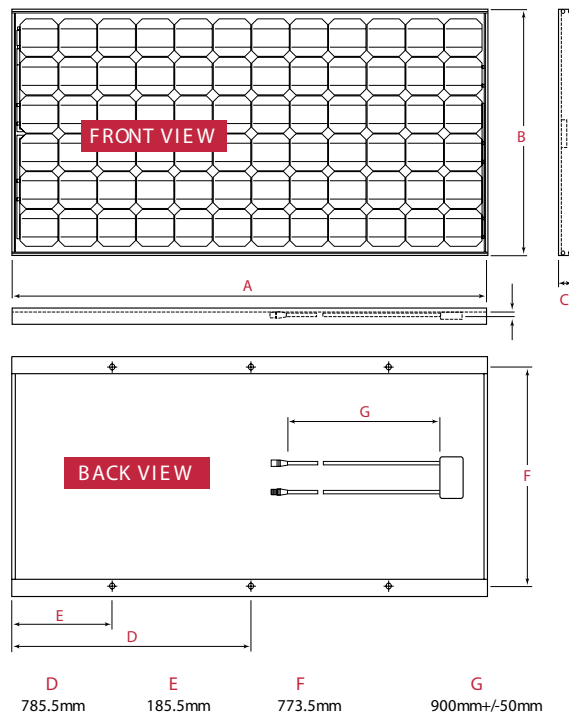


Fig. 1-2 Current, Power vs. Voltage Characteristics

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DIMENSIONS



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

