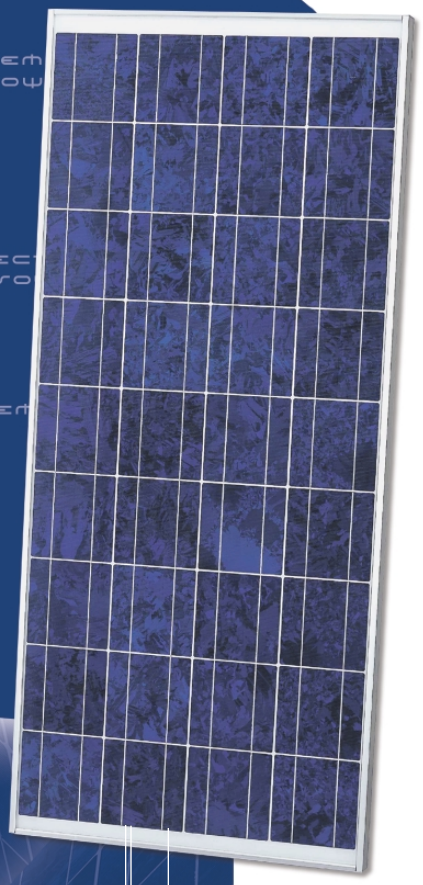
123 WATT



SUPERB DURABILITY WITH IMPROVED CELL CONVERSION EFFICIENCY

MULTI-SILICON PHOTOVOLTAIC MODULE WITH 123W MAXIMUM POWER

A safe, clean, reliable source of energy, Sharp's ND-L3E1U 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 ND-L3E1U include private residences, RVs, cabins and vacation homes, solar power stations, pumps, telemetry systems, 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.

FEATURES

High-power module (123W) using 155mm square multi-crystal silicon solar cells with 12.39% 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 (Back Surface Field) structure to improve cell conversion efficiency: 14.13%.

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

Certifications: UL 1703, cUL

SHARP modules are manufactured in ISO 9001 certified factories

SHARP

ND-L3E1U – HIGH POWER MODULE

ELECTRICAL CHARACTERISTICS

Cell	Multi-crystal silicon solar cells
No. of Cells and Connections	36 in series
Open Circuit Voltage (Voc)	21.3
Maximum Power Voltage (Vpm)	17.2
Short Circuit Current (Isc)	8.12
Maximum Power Current (Ipm)	7.16
Maximum Power (Minimum Power) (Pm)[1]	123.0 (110.7)
Encapsulated Solar Cell Efficiency (ηc)	14.13
Module Efficiency (ηm)	12.39
PTC Rating (W)[2]	107.75
Maximum System Voltage	DC 600V
Series Fuse Rating	10A
Type of Output Terminal	Lead Wire with MC Connector

MECHANICAL CHARACTERISTICS

Dimensions (A x B x C below)	1499 x 662 x 46mm /59.06 x 26.08 x 1.812"
Weight	14.0kg/30.87lbs
Packing Condition	2 pcs - 1 Carton
Size of Carton	160 x 78 x 13cm /63.04 x 30.732 x 5.122"
Loading Capacity (20ft container)	196 pcs - 98 carton
Loading Capacity (40ft container)	420 pcs - 210 carton

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

IV CURVES

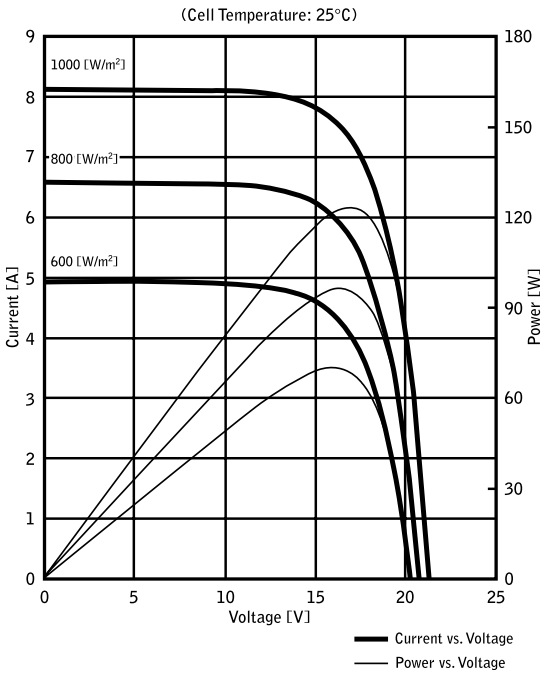
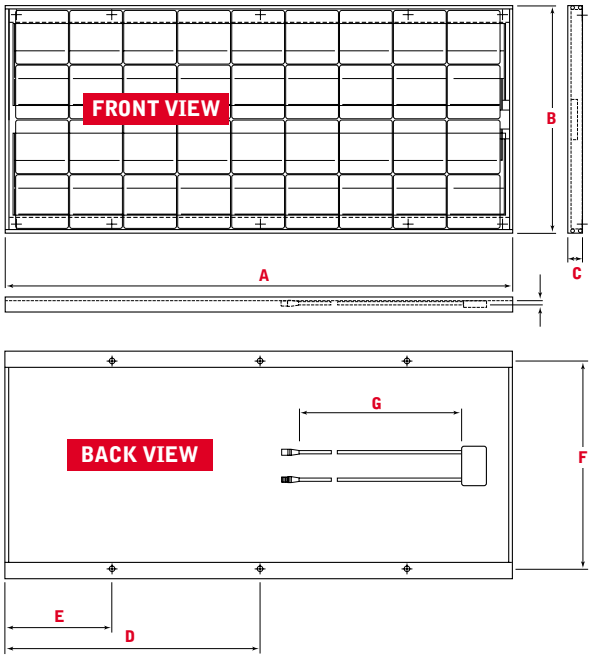


Fig. 1-2 Current, Power vs. Voltage Characteristics

DIMENSIONS



D	E	F	G
749.5mm /29.5"	249.5mm /9.8"	619.0mm /24.4"	1300mm+/-50mm /51.2" +/- 2"

Specifications are subject to change without notice.
[1] (STC) Standard Test Conditions: 25°C, 1 kW/m², AM 1.5
[2] (PTC) Pacific Test Conditions: 1 kW/m², AM 1.5, 20°C, 1 m/s wind speed

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