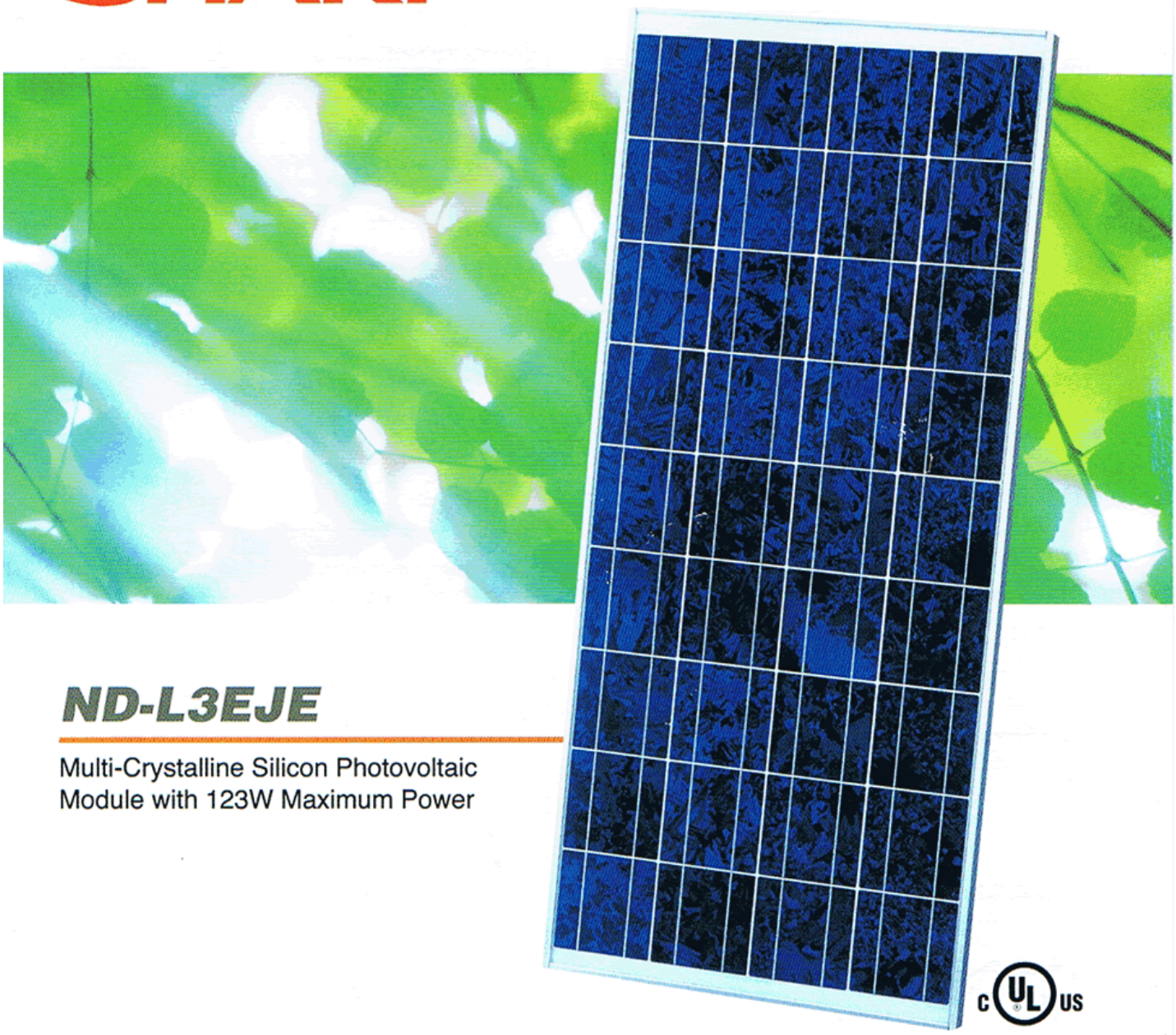
SHARP



ND-L3EJE

Multi-Crystalline Silicon Photovoltaic Module with 123W Maximum Power

GENERAL DESCRIPTION

SHARP's ND-L3EJE photovoltaic module is designed for a variety of electrical power requirements. Based on the technology of crystalline silicon solar cells cultivated for over 40 years, this module has superb durability to withstand rigorous operating conditions and is suitable for stand alone solar systems.

FEATURES

1. High-power module (123W) using 155.5mm square multi-crystalline silicon solar cells with 12.4% module conversion efficiency.
2. Photovoltaic module with bypass diode minimizes the power drop caused by shade.
   Anti Reflection Corting and BSF (Back Surface Field) structure to improve cell conversion efficiency: 14.1%.
3. Using white tempered glass, EVA resin, and a weatherproof film along with an aluminum frame for extended outdoor use
4. Nominal 12VDC output for battery charging applications
5. Junction box for easy elctrical connection in the field

SPECIFICATIONS

Cell	Multi-crystalline silicon solar cells, 155.5mm square
No. of cells and connections	36 in series
Application	DC 12V system
Maximum system voltage	DC 600V
Series fuse rating	15A
Maximum power	123.0 W (Typ.)
Dimensions	1499 × 662 × 46mm
Weight	14kg

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

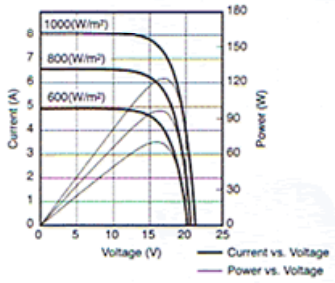
Type of output terminal	Junction Box

ELECTRO-OPTICAL CHARACTERISTICS

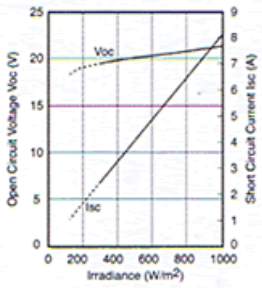
Model		ND-L3EJE			
Parameters	Symbol	Min.	Typ.	Unit	Condition
Open circuit voltage	Voc	—	21.3	V	Irradiance: 1000 W/m² Module temperature: 25°C
Maximum power voltage	Vpm	—	17.2	V	
Short circuit current	Isc	—	8.12	A	
Maximum power current	Ipm	—	7.16	A	
Maximum power	Pm	110.7	123.0	W	
Encapsulated solar cell efficiency	ηc	—	14.1	%	
Module efficiency	ηm	—	12.4	%	

CHARACTERISTICS

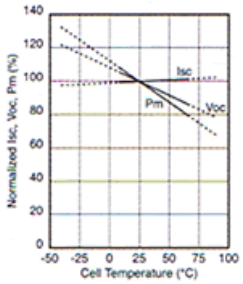
Current, Power vs. Voltage Characteristics (Module temperature: 25°C)



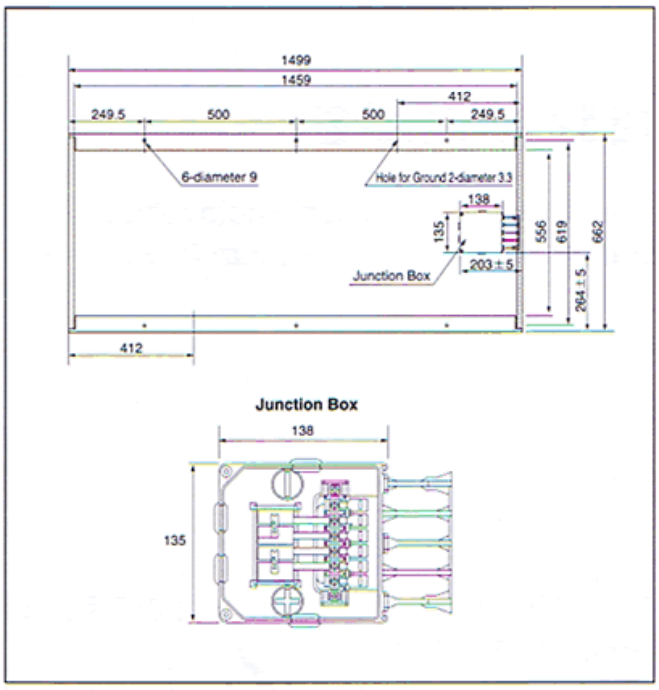
Open Circuit Voltage, Short Circuit Current vs. Irradiance Characteristics (Module temperature: 25°C)



Normalized Isc, Voc, Pm vs. Module Temperature Characteristics



OUTLINE DIMENSIONS



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.

APPLICATIONS

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