

# SHARP



## ND-130T1J

Poly-Crystalline Silicon Photovoltaic Module with 130W Maximum Power

### GENERAL DESCRIPTION

SHARP's ND-130T1J 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

- 1** High-power module (130W) using 156.5 mm square poly-crystalline silicon solar cells with 12.99 % module conversion efficiency.
- 2** Photovoltaic module with bypass diode minimizes the power drop caused by shade. Anti Reflection Coating and BSF (Back Surface Field) structure to improve cell conversion efficiency.
- 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
- 6** Qualified IEC 61215, JET certificate number PV08-53102-1054
- 7** Qualified IEC 61730 (PV module Safety qualification)

## SPECIFICATIONS

Cell	Poly-crystalline silicon solar cells, 156.5 mm square
No. of cells and connections	36 in series
Application	DC 12V system
Maximum system voltage	DC 600V
Series fuse rating	15A
Maximum power	130W
Dimensions	1491 × 671 × 46mm
Weight	14.5 kg

## ABSOLUTE MAXIMUM RATINGS

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

## OUTPUT TERMINAL

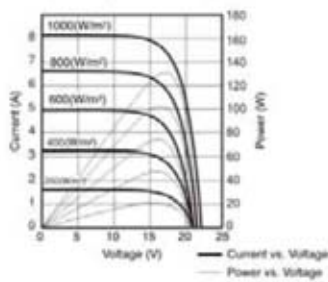
Type of output terminal	Lead wire with connector
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## ELECTRO-OPTICAL CHARACTERISTICS

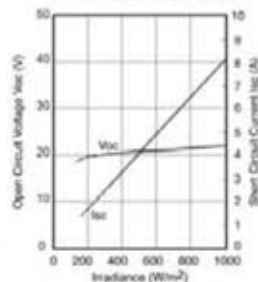
Model	ND-130T1J				
Parameters	Symbol	Min.	Typ.	Unit	Condition
Open circuit voltage	Voc	—	22.0	V	Irradiance: 1000 W/m <sup>2</sup>
Maximum power voltage	Vpm	—	17.4	V	
Short circuit current	Isc	—	8.09	A	
Maximum power current	Ipm	—	7.48	A	Module temperature: 25°C
Maximum power	Pm	123.5	130	W	
Module efficiency	ηm	—	12.99	%	

## CHARACTERISTICS

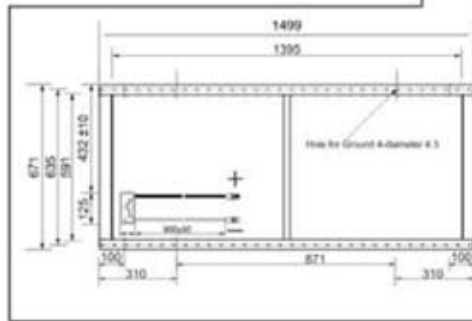
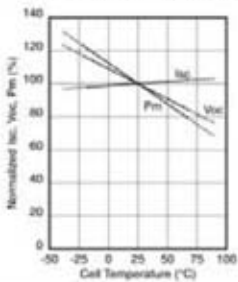
Current, Power vs. Voltage Characteristics  
(Cell temperature: 25°C)



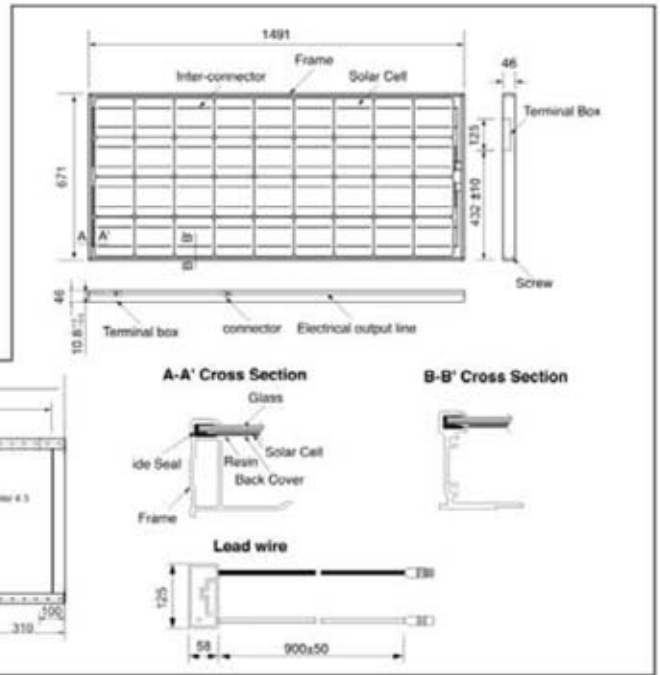
Open Circuit Voltage, Short Circuit Current  
vs. Irradiance Characteristics  
(Cell temperature: 25°C)



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

- 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 (Terminal)

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