

SHARP

ND-T060M1

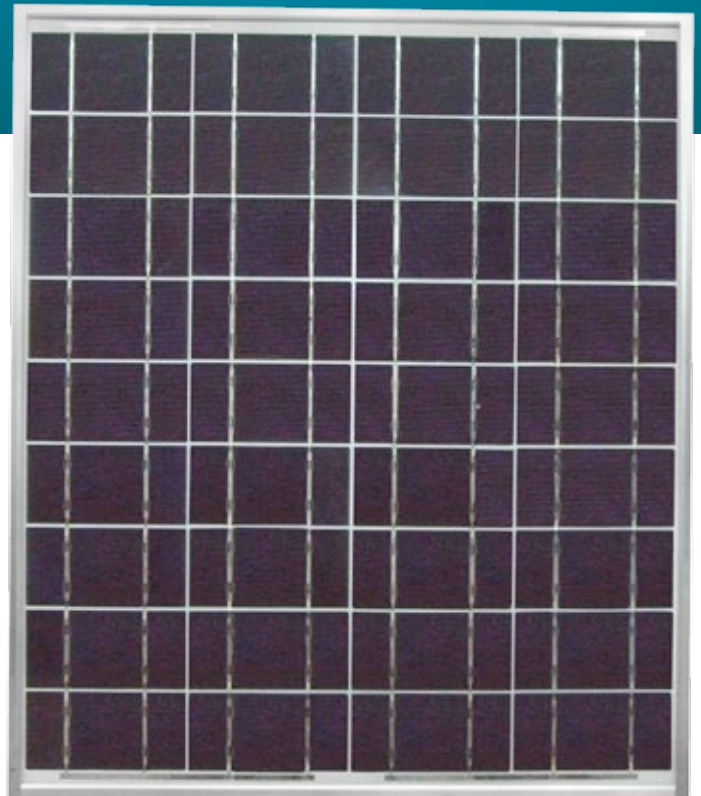
POLY-CRYSTALLINE SILICON PHOTOVOLTAIC MODULE WITH 60W MAXIMUM POWER

Sharp's ND-T060M1 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

- High-power module (60W) using poly-crystalline silicon solar cells with 11.36% module conversion efficiency
- Photovoltaic module with by-pass diode minimizes the power-drop caused by shade. Anti Reflection Coating and BSF (Back Surface Field) structure helps improve cell conversion efficiency
- Using low iron tempered glass, EVA resin, and a weather-proof film along with an aluminum frame for extended outdoor use
- DC 12V system
- Output terminal: Lead wire
- Qualified IEC 61215, IEC 61730



SPECIFICATIONS

Cell	Poly-crystalline silicon solar cells
No. of cells and connections	36 in series
Application	DC 12V system
Maximum system voltage	DC 600V
Maximum power	60W
Dimensions	787x671x46
Weight	7.5 kg

ABSOLUTE MAXIMUM RATINGS

Parameters	Rating	Unit
Operating temperature	-40 to +90	°C
Storage temperature	-40 to +90	°C
Dielectric voltage withstand	4400 max.	V-DC

OUTPUT TERMINAL

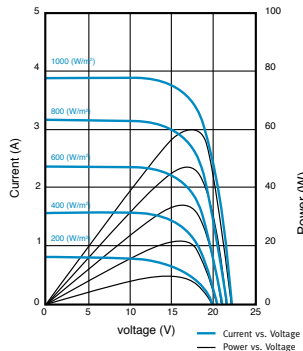
Type of output terminal	Lead wire
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ELECTRO-OPTICAL CHARACTERISTICS

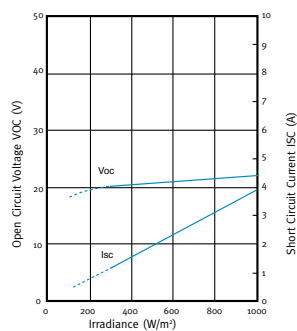
Model	ND-T060M1				Condition
Parameters	Symbol	Min.	Typ.	Unit	
Open circuit voltage	Voc	—	22.0	V	Irradiance: 1000 W/m ²
Maximum power voltage	Vpm	—	17.4	V	
Short circuit current	Isc	—	3.90	A	
Maximum power current	Ipm	—	3.45	A	Module temperature: 25°C
Maximum power	Pm	57	60	W	
Module efficiency	ηm	—	11.36	%	

CHARACTERISTICS

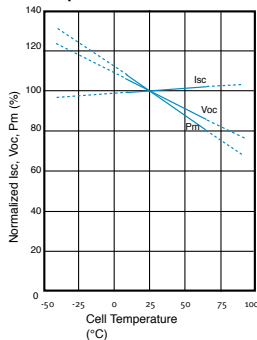
Current Power vs Voltage Characteristics (Module temperature 25°C)



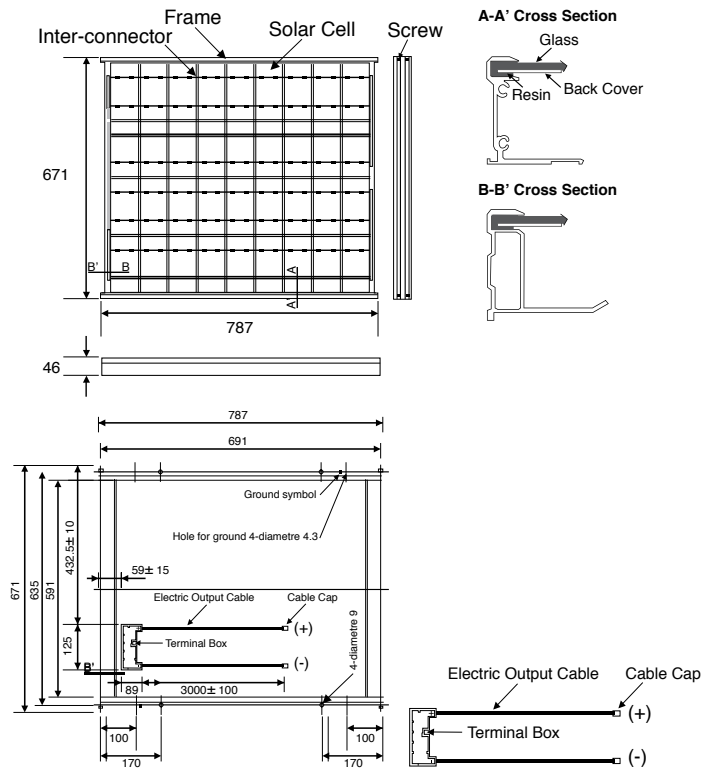
Open Circuit Voltage, Short Circuit Current vs Irradiance Characteristics (Module temperature 25°C)



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 catalogues, 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
- Telemetre systems
- Telecommunication systems



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