

Topsun's Crystalline Photovoltaic Modules are manufactured under Integrated Management System (ISO 9K: ISO 14K: BS 18K) for quality and safety environment. Offers high module efficiencies with consistent performance, quality workmanship and antimony free glass material. High power modules precisely manufactured to achieve better module conversion efficiency in the industry. Environmental friendly product confirming to RoHS standards.

## Features :

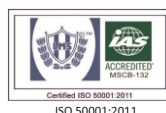
- Multi Crystalline
- Meeting MNRE standards
- Guaranteed reliability due to use of certified raw material from reputed brands
- RoHS and CE Compliance
- Certified for applicable IEC standards from national & international IEC recognized laboratories
- Best suited for off grid applications

## Product Certifications :

- IS14286/IEC 61215: 2005 Ed 2.0
- IEC/IS 61730-1: 2013/2004 Ed 1.2/IEC 61730-1: 2007
- IEC/IS 61730-2: 2012/2004 Ed 1.1/IEC 61730-2: 2007
- IEC 61701: 2012 salt mist corrosion test

## Organization Certifications :

- ISO 9001; ISO 14001; OHSAS 18001 Certified
- ISO 50001 Certified
- ZED Certified



## Typical Electrical Characteristics at STC

IV parameters are tested at STC (Irradiance of 1000W/m<sup>2</sup>, AM 1.5G and Temperature 25°C)

Model/Type	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)	Eff (%)	FF (%)
TEL12CP40	40.00	18.40	2.20	22.43	02.35	13.13	75.76

Electrical Parameters Tolerance: ± 3%

Compliance of Simulator readings with an accuracy of class AAA (±2%)

### Typical Electrical Characteristics at NOCT

IV parameters are tested at NOCT (Irradiance of 800W/m<sup>2</sup>,Temp at NOCT)

Model/Type	(Pmax)	(Vmp)	(Imp)	(Voc)	(Isc)	Eff (%)	FF(%)
TEL12CP40	29.05	16.64	1.77	20.40	1.90	09.53	74.94

### System Design

Series Fuse Rating (Recommended): 4 A

Maximum System Voltage: 600 VDC

Static Load: 2400 Pa (50 Psf)

Module Dimension (LxWxT): 461 x 661 x 35 mm (Area:0.304 Sq.mtr)

Module Weight: 3.90 kg (8.598 Lbs)

Fire Rating: Class C

Bypass Diode Rating: 6A

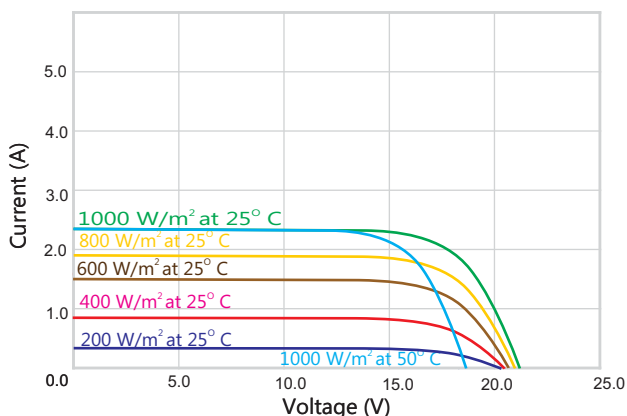
### Temperature Co-efficients

NOCT	45±2	°C
Pmp	-0.43	%/°C
Isc	0.05	%/°C
Voc	-0.36	%/°C
Operating Temperature	-40 to +85	°C

### Packing Configuration

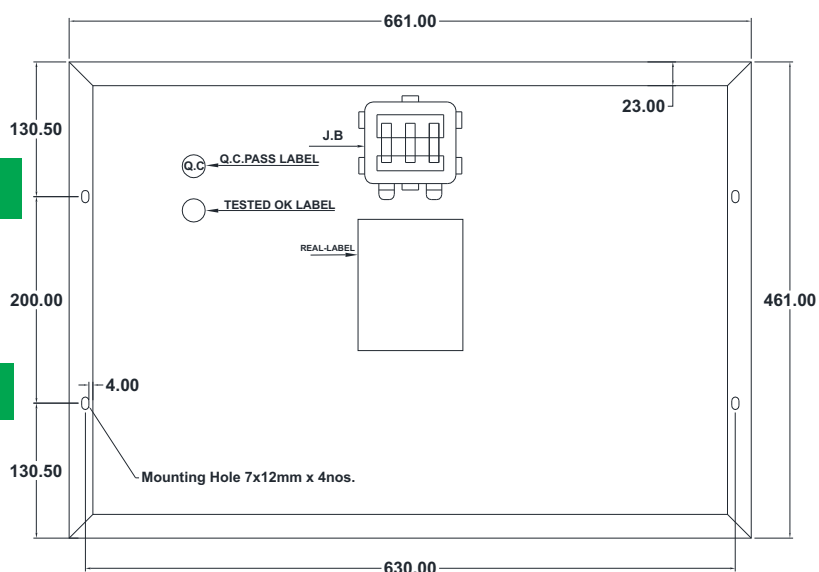
Each Master Box	5 Modules
20 Ft Container	1440 Modules
40 Ft Container	3060 Modules

### Typical IV Curves



Current/voltage dependence on irradiance and module temperature. These I-V curves indicate the effect of temperature and light intensity on module Performance.

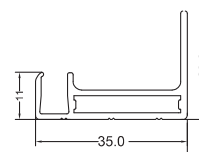
### Dimensions:



Tolerance: ± 2mm  
All Dimensions are in mm



Refer Installation, Operation & Maintenance manual before use and operation of the product



NOTE: Data within this document may change without any prior notice due to continual improvements. you are advised to get latest information before making any final decision on listed products.