

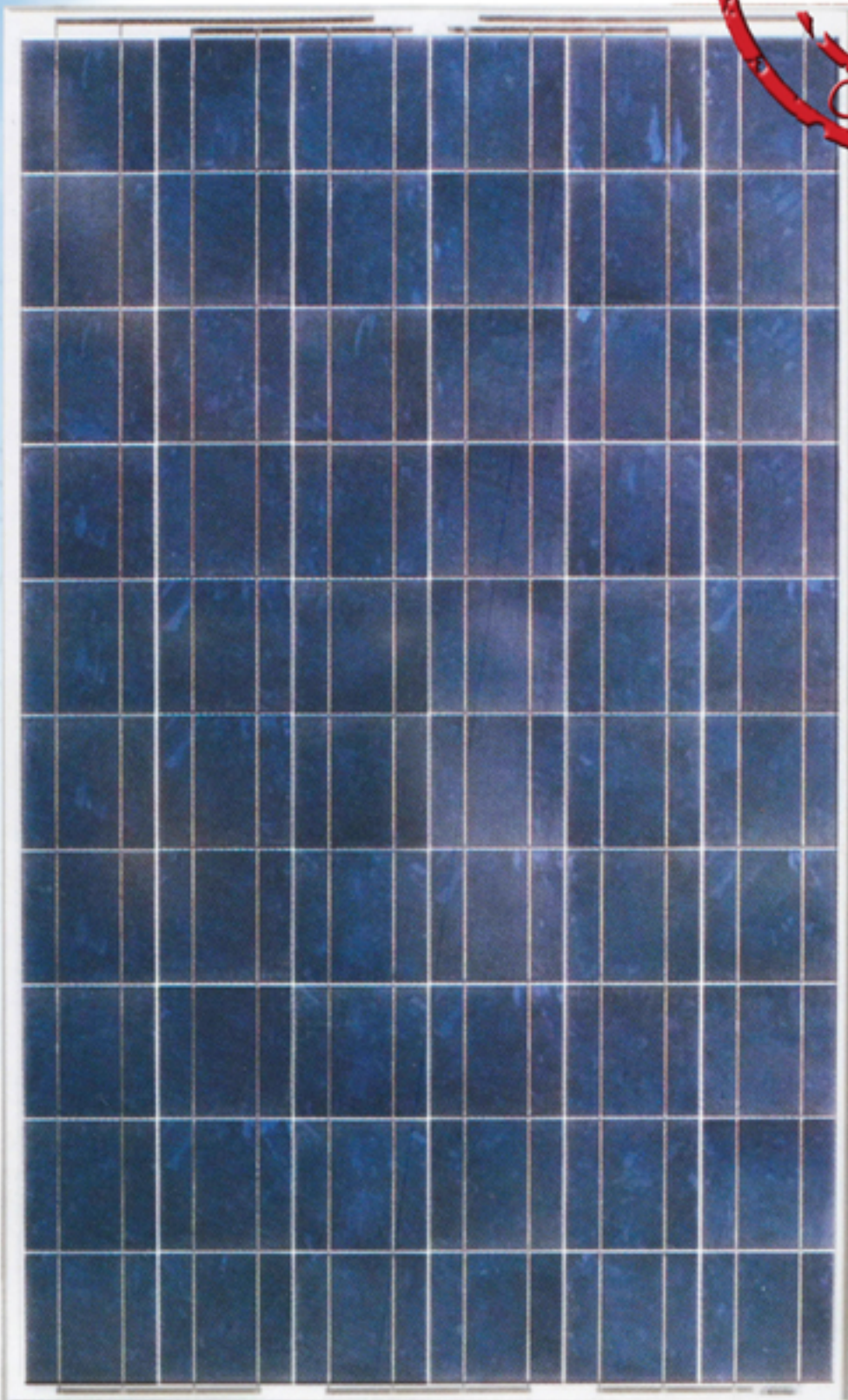


**ecosun**<sup>®</sup>  
Solar Energy. It simply works.

## 230w Polycrystalline Photovoltaic Solar Module

### Overview

- Latest generation high-efficient polycrystalline cell technology
- Higher cell efficiency achieved through Grade "A" silicon solar cells for long term reliability and performance
- Output tolerance of -0,+3% ensures the promised system output power is delivered
- Durable anodized aluminum frame offers strong mechanical and lightweight structure for almost any application
- Low-iron tempered glass



### Warranty & Certification

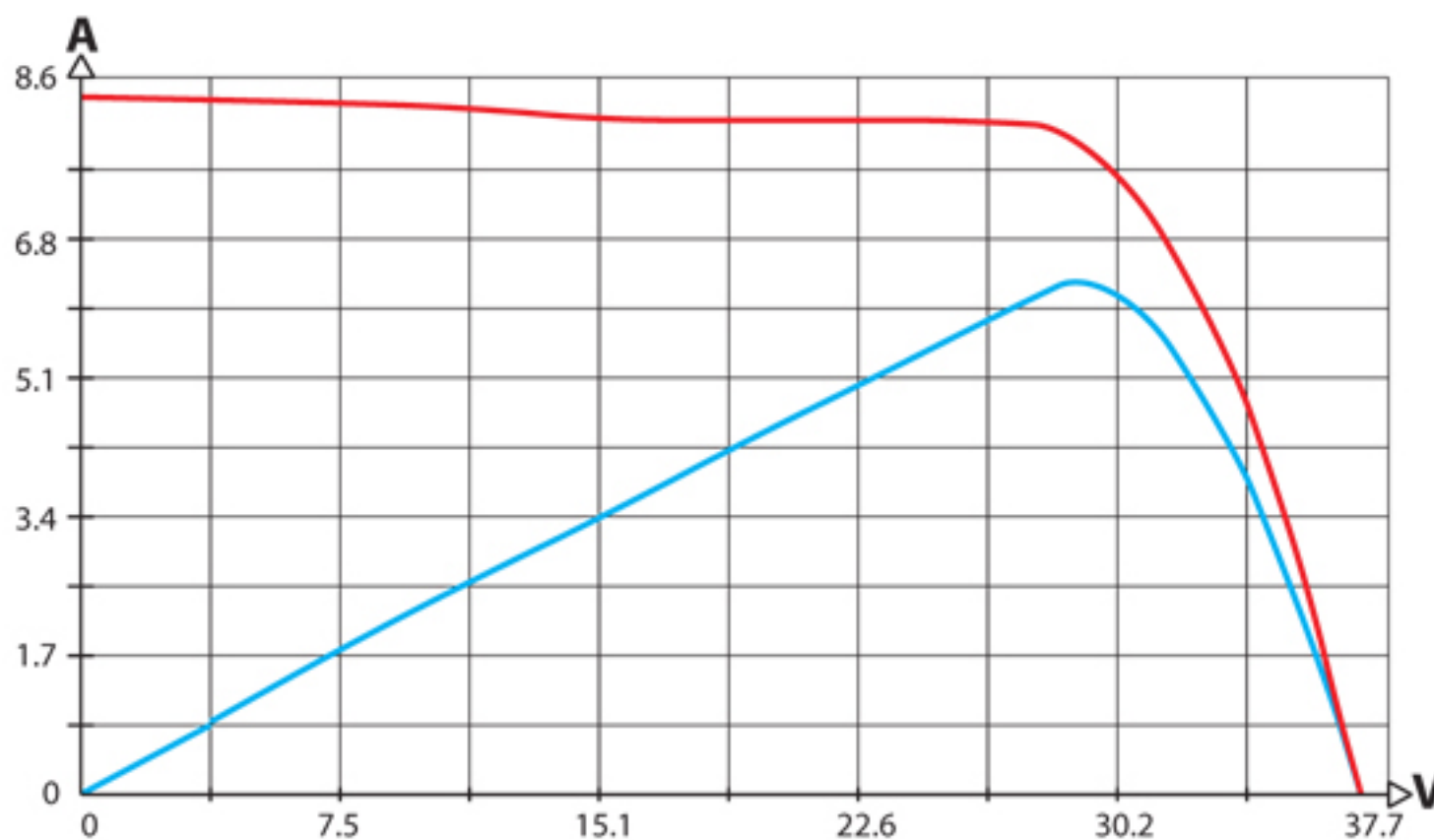
- 25 years 80% Power Output Warranty
- 10 years 90% Power Output Warranty
- 5 years Complete Frame-to-Frame Warranty on Materials and workmanship
- Performance Warranty Insurance for the duration of the warranty (undertaken by Chubbs Ins.)
- UL1703, ULC/ORD C-1703-1



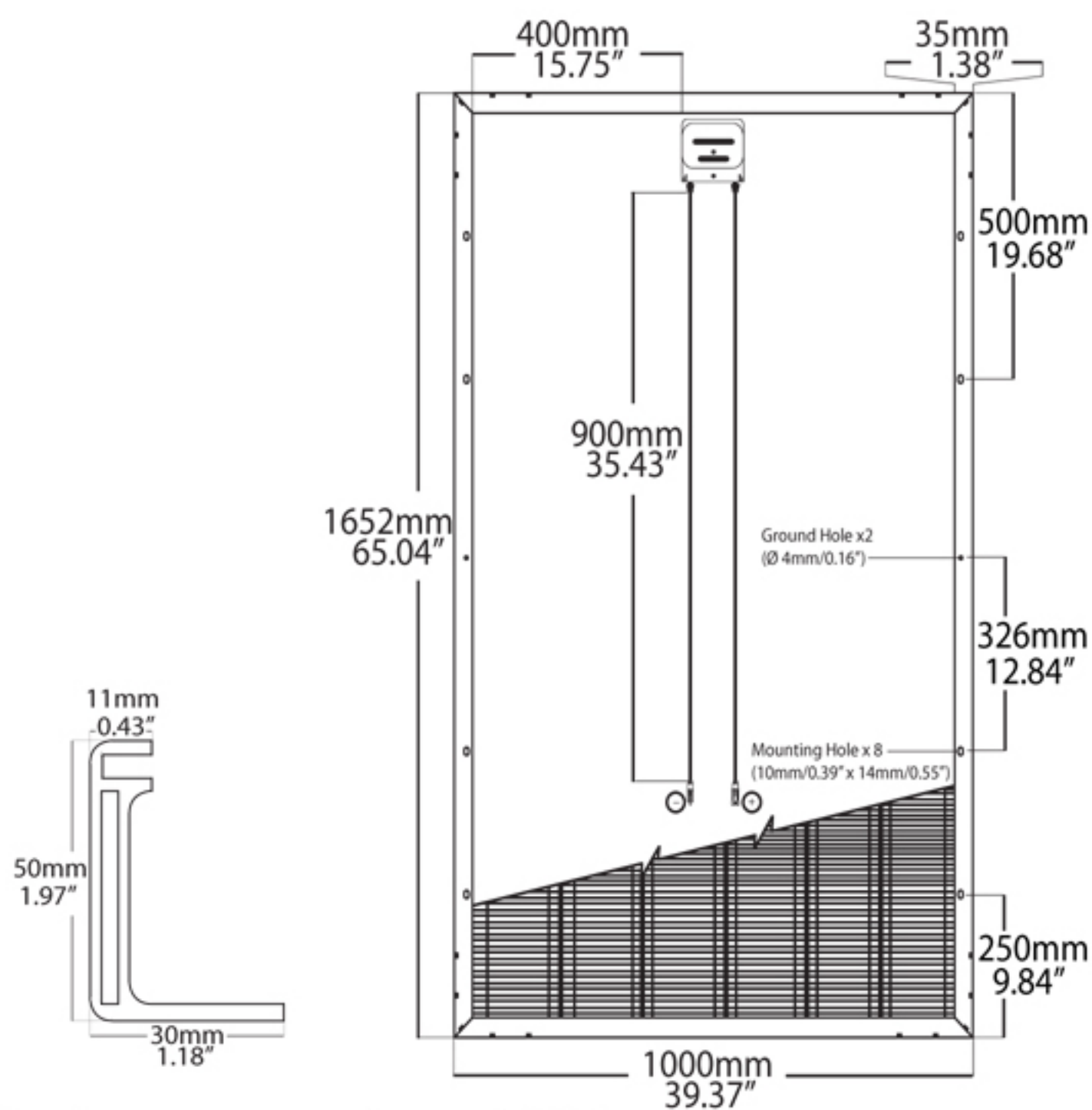


## ESP-230-L Characteristics

Module IV Graph 230W



I-V Curve, P-V Curve, @stc 1000w/m<sup>2</sup>



All tolerances are  $\pm 1\text{mm}/0.04''$

## ESP-230-L

### Mechanical Data

Solar Cell	60 Poly-crystalline 156 x 156 mm
Front Glass	3.2mm tempered
Junction Box	IP65 Rated
Output Cables	>900mm length with MC4 compatible connectors
Frame	Anodized aluminium
Weight	20kg
Dimension	1652 x 1000 x 50mm

### Electrical Specification

STC: 1000W/m<sup>2</sup>, 25°C, AM= 1.5

Nominal peak power(Wp)	230w
Nominal voltage(Vmpp) at STC	29.9V
Nominal current(Imp) at STC	7.69A
Open circuit voltage(Voc) at STC	37.2V
Short circuit current(Isc) at STC	8.59A
Maximum System Voltage	600V DC

### Temperature Coefficients

NOCT (Nominal Operating Cell Temperature): -40°C to +85°C

NOCT	45 $\pm$ 2°C
Voltage temperature coefficient(Voc)	-0.36%/°C
Current temperature coefficient(Isc)	+0.033%/°C
Power temperature coefficient(Pmpp)	-0.48%/°C



## EcoSunPv Inc.

5945 Ambler Dr., Mississauga,  
Ontario, L4W 2k2 Canada  
[www.ecosunpv.com](http://www.ecosunpv.com)  
[info@ecosunpv.com](mailto:info@ecosunpv.com)

Phone: 1.905.629.3639  
Fax: 1.905.629.1203  
Toll Free: 1.877.632.6228  
Toll Free Fax: 1.877.532.6228

Authorized Dealer

**CAUTION: Read Safety and Installation Instructions Before Using the Product.**  
For more information, go to [www.ecosunpv.com](http://www.ecosunpv.com)

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Specifications included in this datasheet are subject to change without notice