



# ClearPower CS6P

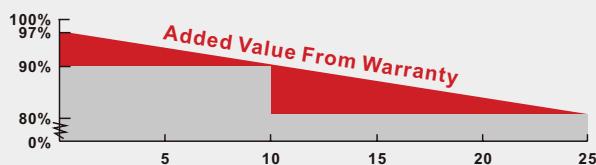
230/235/240/245/250M

ClearPower CS6P is a robust solar standardized module with a tempered glass front, transparent backsheet and anodized black (or silver) aluminium frame. These modules can be used for on-grid solar applications. Our meticulous design and production techniques ensure a high-yield, long-term performance for every module produced. Our rigorous quality control and in-house testing facilities guarantee Canadian Solar's modules meet the highest quality standards possible.

## Key Features

- Cost-effective standardized solar modules for skylight, roofing, and facades applications
- Transparent backsheet features aesthetic appearance and light transmission/shading (Transmission rate: 5%)
- Industry leading plus only power tolerance: 0 ~ +5W
- Strong framed module, passing mechanical load test of 5400Pa to withstand heavier snow load
- Industry first comprehensive warranty insurance by AM Best rated leading insurance companies in the world
- The 1st manufacturer in PV industry to apply ISO: TS16949 (The automotive quality management system) in module production since 2003
- ISO17025 for qualified manufacturer owned testing lab, fully complying to IEC, TUV, UL testing standards

**Backed By Our New 10/25 Linear Power Warranty Plus our added 25 year insurance coverage**



- 10 year product warranty on materials and workmanship
- 25 year linear power output warranty

## Best Quality

- 235 quality control points in module production
- EL screening to eliminate product defects
- Current binning to improve system performance

## Best Warranty Insurance

- 25 years worldwide coverage
- 100% warranty term coverage
- Providing third party bankruptcy rights
- Non-cancellable
- Immediate coverage
- Insured by 3 world top insurance companies

## Comprehensive Certificates

- IEC 61215, IEC 61730, UL1703, MCS
- ISO9001: 2008: Quality Management System
- ISO/TS16949:2009: The automotive quality management system
- ISO14001:2004: Standards for Environmental management system
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
- OHSAS 18001:2007 International standards for occupational health and safety



# CS6P-230/235/240/245/250M

## Electrical Data

| STC                             | CS6P-230M             | CS6P-235M | CS6P-240M | CS6P-245M | CS6P-250M |
|---------------------------------|-----------------------|-----------|-----------|-----------|-----------|
| Nominal Maximum Power (Pmax)    | 230W                  | 235W      | 240W      | 245W      | 250W      |
| Optimum Operating Voltage (Vmp) | 29.9V                 | 30.1V     | 30.2V     | 30.3V     | 30.4V     |
| Optimum Operating Current (Imp) | 7.70A                 | 7.82A     | 7.95A     | 8.09A     | 8.22A     |
| Open Circuit Voltage (Voc)      | 37.1V                 | 37.2V     | 37.3V     | 37.4V     | 37.5V     |
| Short Circuit Current (Isc)     | 8.22A                 | 8.34A     | 8.46A     | 8.61A     | 8.74A     |
| Module Efficiency               | 14.30%                | 14.61%    | 14.92%    | 15.23%    | 15.54%    |
| Operating Temperature           | -40°C~+85°C           |           |           |           |           |
| Maximum System Voltage          | 1000V (IEC)/600V (UL) |           |           |           |           |
| Maximum Series Fuse Rating      | 15A                   |           |           |           |           |
| Application Classification      | Class A               |           |           |           |           |
| Power Tolerance                 | 0 ~ +5W               |           |           |           |           |

Under Standard Test Conditions (STC) of irradiance of 1000W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C

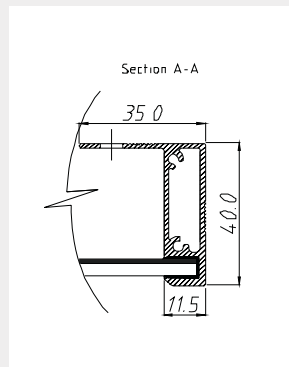
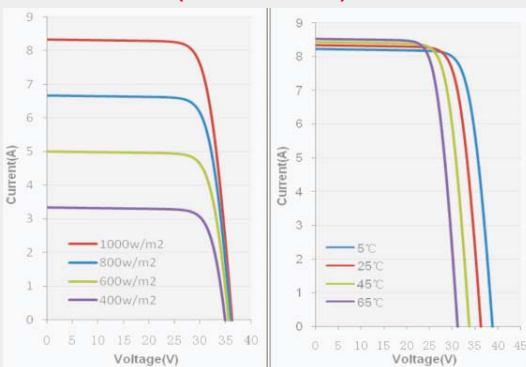
| NOCT                            | CS6P-230M | CS6P-235M | CS6P-240M | CS6P-245M | CS6P-250M |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|
| Nominal Maximum Power (Pmax)    | 166W      | 170W      | 173W      | 177W      | 180W      |
| Optimum Operating Voltage (Vmp) | 27.3V     | 27.5V     | 27.5V     | 27.6V     | 27.7V     |
| Optimum Operating Current (Imp) | 6.09A     | 6.18A     | 6.29A     | 6.40A     | 6.51A     |
| Open Circuit Voltage (Voc)      | 34.0V     | 34.1V     | 34.2V     | 34.3V     | 34.4V     |
| Short Circuit Current (Isc)     | 6.65A     | 6.75A     | 6.85A     | 6.97A     | 7.08A     |

Under Normal Operating Cell Temperature, Irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s

## Mechanical Data

|  |  |
|--|--|
| Cell Type                                      | Mono-crystalline 156 x 156mm, 2 or 3 Busbars |
| Cell Arrangement                               | 60 (6 x 10)                                  |
| Dimensions                                     | 1638 x 982 x 40mm (64.5 x 38.7 x 1.57in)     |
| Weight   | 19kg (41.9 lbs)                              |
| Front Cover                                    | 3.2mm Tempered glass                         |
| Frame Material                                 | Anodized aluminium alloy                     |
| J-BOX  | IP65, 3 diodes                               |
| Cable  | 4mm <sup>2</sup> (IEC)/12AWG(UL), 1000mm     |
| Connectors                                     | MC4 or MC4 Comparable                        |
| Standard Packaging (Modules per Pallet)        | 24pcs  |
| Module Pieces per container (40 ft. Container) | 672pcs (40'HQ)                               |

## I-V Curves (CS6P-240M)



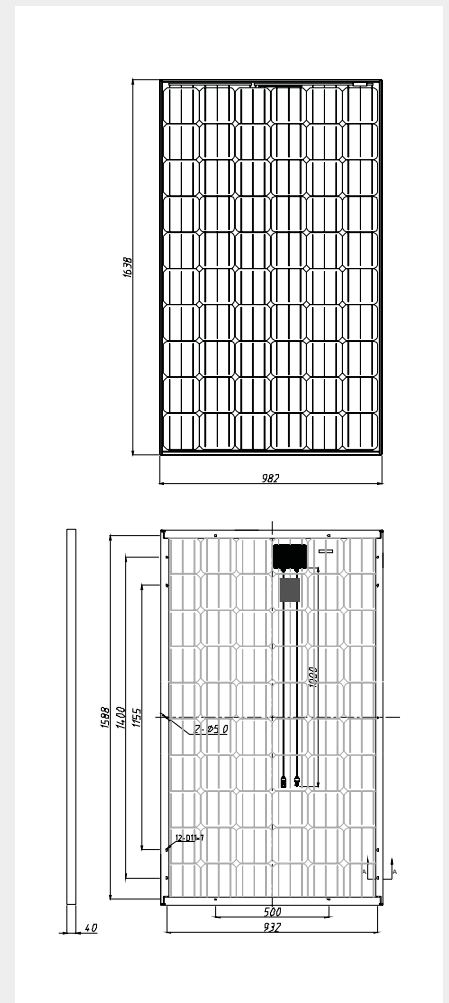
## ClearPower Temperature Characteristics

|                                   |        |            |
|-----------------------------------|--------|------------|
| Temperature Coefficient           | Pmax   | -0.45%/°C  |
|                                   | Voc    | -0.35 %/°C |
|                                   | Isc    | 0.060 %/°C |
| Normal Operating Cell Temperature | 45±2°C |            |

## Performance at Low Irradiance

Industry leading performance at low irradiation environment, +95.5% module efficiency from an irradiance of 1000w/m<sup>2</sup> to 200w/m<sup>2</sup> (AM 1.5, 25 °C)

## Engineering Drawings



\*Specifications included in this datasheet are subject to change without prior notice.

## About Canadian Solar

Canadian Solar Inc. is one of the world's largest solar companies. As a leading vertically-integrated manufacturer of ingots, wafers, cells, solar modules and solar systems, Canadian Solar delivers solar power products of uncompromising quality to worldwide customers. Canadian Solar's world class team of professionals works closely with our customers to provide them with solutions for all their solar needs.

Canadian Solar was founded in Canada in 2001 and was successfully listed on NASDAQ Exchange (symbol: CSIQ) in November 2006. Canadian Solar has module manufacturing capacity of 2.05GW and cell manufacturing capacity of 1.3GW.

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