



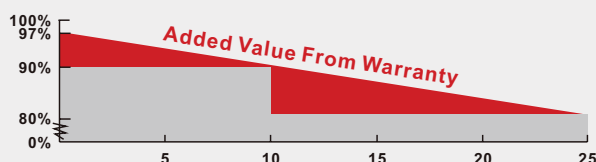
ClearPower CS5A

175/180/185/190/195M

ClearPower CS5A 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 and off-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: 8%)
- 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, IEC61730, UL 1703, CE, 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



CS5A-175/180/185/190/195M

ClearPower

Electrical Data

STC	CS5A-175M	CS5A-180M	CS5A-185M	CS5A-190M	CS5A-195M
Nominal Maximum Power (Pmax)	175W	180W	185W	190W	195W
Optimum Operating Voltage (Vmp)	35.8V	36.1V	36.4V	36.6V	37.0V
Optimum Operating Current (Imp)	4.89A	4.99A	5.09A	5.19A	5.27A
Open Circuit Voltage (Voc)	44.4V	44.6V	44.6V	44.8V	45.0V
Short Circuit Current (Isc)	5.23A	5.34A	5.46A	5.52A	5.62A
Module Efficiency	13.70%	14.09%	14.48%	14.87%	15.26%
Operating Temperature	-40°C~+85°C				
Maximum System Voltage	1000V (IEC)/600V (UL)				
Maximum Series Fuse Rating	10A				
Application Classification	Class A				
Power Tolerance	0 ~ +5W				

Under Standard Test Conditions (STC) of irradiance of 1000W/m², spectrum AM 1.5 and cell temperature of 25°C

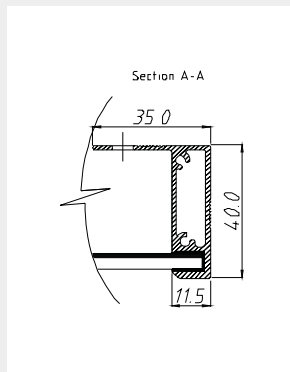
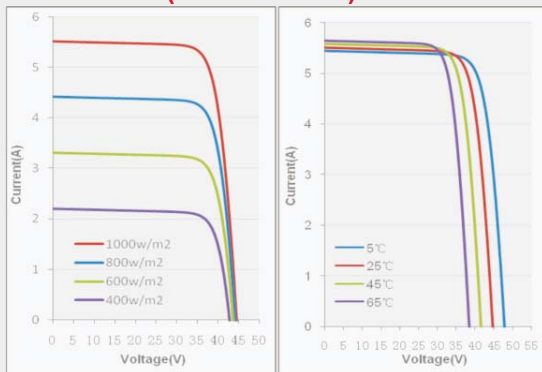
NOCT	CS5A-175M	CS5A-180M	CS5A-185M	CS5A-190M	CS5A-195M
Nominal Maximum Power (Pmax)	126W	130W	134W	137W	141W
Optimum Operating Voltage (Vmp)	32.7V	32.9V	33.2V	33.4V	33.7V
Optimum Operating Current (Imp)	3.87A	3.95A	4.02A	4.11A	4.17A
Open Circuit Voltage (Voc)	40.7V	40.9V	40.9V	41.1V	41.3V
Short Circuit Current (Isc)	4.23A	4.32A	4.42A	4.47A	4.55A

Under Normal Operating Cell Temperature, Irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s

Mechanical Data

Cell Type	Mono-crystalline 125 x 125mm, 2 Busbars
Cell Arrangement	72 (6 x 12)
Dimensions	1595 x 801 x 40mm (62.8 x 31.5 x 1.57in)
Weight	15.3kg (33.7 lbs)
Front Cover	3.2mm Tempered glass
Frame Material	Anodized aluminium alloy
J-BOX	IP65, 3 diodes
Cable	4mm ² (IEC)/12AWG(UL), 950mm
Connectors	MC4 or MC4 Comparable
Standard Packaging (Modules per Pallet)	24pcs
Module Pieces per container (40 ft. Container)	672pcs

I-V Curves (CS5A-190M)



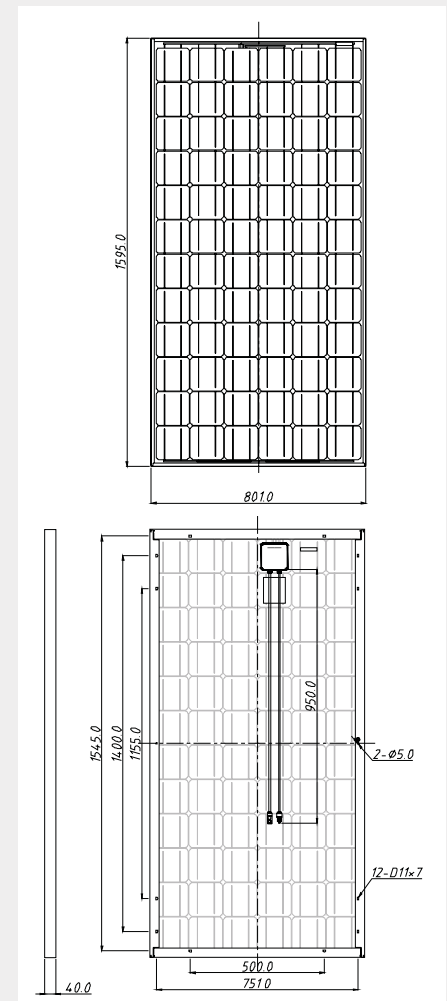
Temperature Characteristics

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/m² to 200w/m² (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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