

## QUARTECH MAX POWER CS6X- 310|315|320P

Canadian Solar's new Quartech modules have significantly raised the standard of module efficiency in the solar industry. They introduced innovative four busbar cell technology, which demonstrates higher power output and higher system reliability. Worldwide, our customers have embraced this next generation of modules for their excellent performance, superior reliability and enhanced value.

### NEW TECHNOLOGY

- Reduces cell series resistance
- Reduces stress between cell interconnectors
- Improves module conversion efficiency
- Improves product reliability

### KEY FEATURES



#### Higher energy yield

- Outstanding performance at low irradiance
- Maximum energy yield at low NOCT
- Improved energy production through reduced cell series resistance



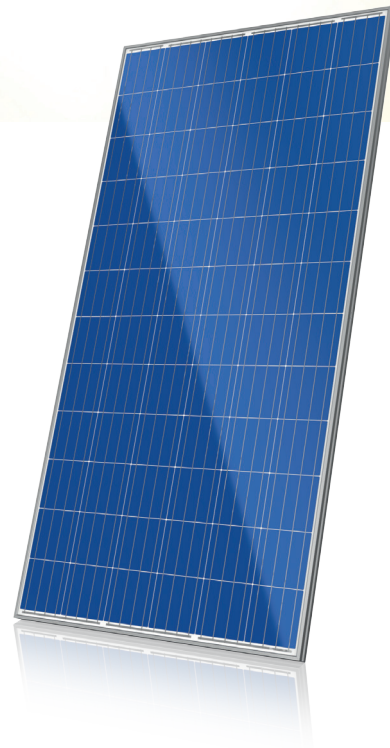
#### Increased system reliability

- Long term system reliability with IP67 junction box
- Enhanced system reliability in extreme temperature environment with special cell level stress release technology



#### Extra value to customers

- Positive power tolerance up to 5 W
- Stronger 40 mm robust frame to hold snow load up to 5400 Pa and wind load up to 2400 Pa
- Anti-glare project evaluation
- Salt mist, ammonia and blowing sand resistance apply to seaside, farm and desert environments



**insurance-backed warranty  
non-cancellable, immediate warranty insurance  
linear power output warranty**



**product warranty on materials  
and workmanship**

### MANAGEMENT SYSTEM CERTIFICATES\*

ISO 9001: 2008 / Quality management system

ISO/TS 16949: 2009 / The automotive industry quality management system

ISO 14001: 2004 / Standards for environmental management system

OHSAS 18001: 2007 / International standards for occupational health & safety

### PRODUCT CERTIFICATES\*

IEC 61215 / IEC 61730: VDE / MCS / CE / JET / SIL / KEMCO / CEC AU/CQC / INMETRO

UL 1703 / IEC 61215 performance: CEC listed (US)

UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / IEC60068-2-68: SGS

PV CYCLE (EU) / UNI9177 Reaction to Fire: Class 1



\* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

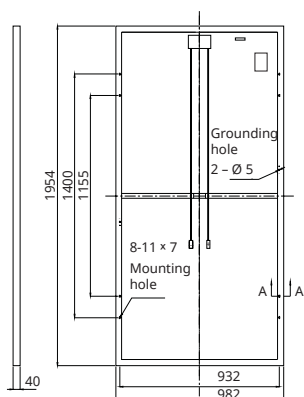
**CANADIAN SOLAR INC.** is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading manufacturer of solar modules and PV project developer with about 10 GW of premium quality modules deployed around the world since 2001, Canadian Solar Inc. (NAS-DAQ: CSIQ) is one of the most bankable solar companies worldwide.

### CANADIAN SOLAR INC.

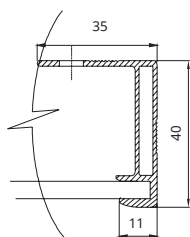
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## MODULE / ENGINEERING DRAWING (mm)

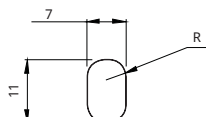
Rear View



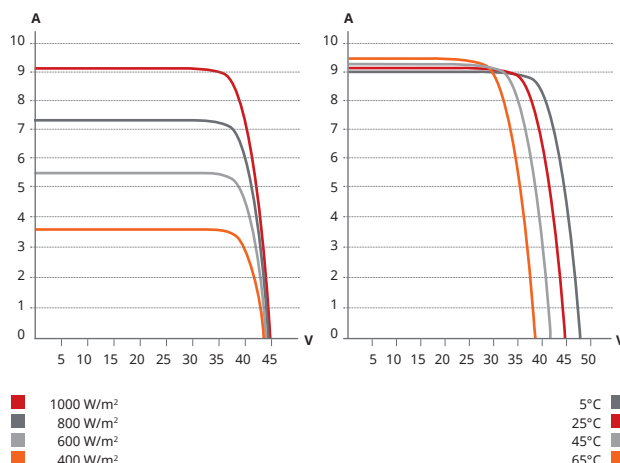
Frame Cross Section A-A



Mounting Hole



## CS6X-310P / I-V CURVES



## ELECTRICAL DATA / STC\*

Electrical Data CS6X	310P	315P	320P
Nominal Max. Power (Pmax)	310 W	315W	320 W
Opt. Operating Voltage (Vmp)	36.4 V	36.6V	36.8 V
Opt. Operating Current (Imp)	8.52 A	8.61A	8.69 A
Open Circuit Voltage (Voc)	44.9 V	45.1V	45.3 V
Short Circuit Current (Isc)	9.08 A	9.18A	9.26 A
Module Efficiency	16.16%	16.42 %	16.68 %
Operating Temperature	-40°C ~ +85°C		
Max. System Voltage	1000 V (IEC) or 1000V (UL)		
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC 61730)		
Max. Series Fuse Rating	15 A		
Application Classification	Class A		
Power Tolerance	0 ~ + 5 W		

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

## ELECTRICAL DATA / NOCT\*

Electrical Data CS6X	310P	315P	320P
Nominal Max. Power (Pmax)	225 W	228 W	232 W
Opt. Operating Voltage (Vmp)	33.2 V	33.4 V	33.6 V
Opt. Operating Current (Imp)	6.77 A	6.84 A	6.91 A
Open Circuit Voltage (Voc)	41.3 V	41.5 V	41.6 V
Short Circuit Current (Isc)	7.36 A	7.44 A	7.50 A

\* Under Nominal Operating Cell Temperature (NOCT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

## PERFORMANCE AT LOW IRRADIANCE

Industry leading performance at low irradiation, +96.0 % module efficiency from an irradiance of 1000 W/m² to 200 W/m² (AM 1.5, 25°C).

The specification and key features described in this Datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, research and product enhancement, Canadian Solar Inc. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Caution: For professional use only. The installation and handling of PV modules requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using the modules.

## MODULE / MECHANICAL DATA

Specification	Data
Cell Type	Poly-crystalline, 6 inch
Cell Arrangement	72 (6 × 12)
Dimensions	1954×982×40 mm (76.93×38.7×1.57 in)
Weight	22 kg (48.5 lbs)
Front Cover	3.2 mm tempered glass
Frame Material	Anodized aluminium alloy
J-BOX	IP67, 3 diodes
Cable	4 mm² (IEC) or 4 mm² & 12 AWG 1000 V (UL), 1150 mm (45.3 in)
Connectors	MC4 or MC4 comparable
Stand. Packaging	26 pcs, 620 kg (quantity & weight per pallet)
Module Pieces per Container	624 pcs (40' HQ)

## TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.43% / °C
Temperature Coefficient (Voc)	-0.34 % / °C
Temperature Coefficient (Isc)	0.065 % / °C
Nominal Operating Cell Temperature	45±2°C

## PARTNER SECTION

