



QUARTECH

The Next Generation Module MAX POWER CS6X-300 | 305 | 310P

QUARTECH MODULE | THE NEXT GENERATION MODULE

Canadian Solar's new Quartech modules have raised the module efficiency to a new standard in the solar industry. It introduced innovative four busbar cell technology which demonstrated higher power output and higher system reliability. Our worldwide customers have embraced this next generation modules for their excellent performance, superior reliability and enhanced value.

PRODUCT | KEY BENIFITS

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

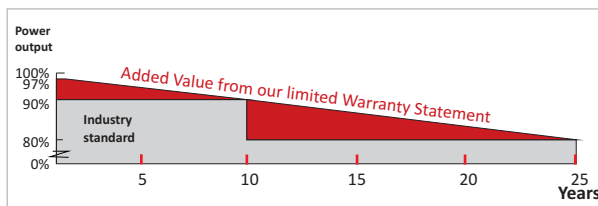


- Long term system reliability with IP67 junction box
- Enhanced system reliability in extreme temperature environment with special cell level stress release technology

Extra Value to Customers



- Positive power tolerance up to 5W
- Stronger 40mm robust frame to hold 5400 Pa load
- Anti-glare project evaluation
- Salt mist, ammonia and blowing sand resistance apply to seaside, farm and desert environment
- 25 year linear performance warranty
- 25 year performance warranty insurance



QUARTECH MODULE | NEW TECHNOLOGY

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

PRODUCT & MANAGEMENT SYSTEM | CERTIFICATES*

IEC 61215 / IEC 61730: VDE / MCS / CE / SII / KEMCO / CEC AU/CQC / INMETRO
UL 1703 / IEC 61215 performance: CEC listed (US) / FSEC (US Florida)
UL 1703: CSA | IEC 61701 ED2: VDE | IEC 62716: TUV | IEC60068-2-68: SGS
PV CYCLE(EU) | UNI9177 Reaction to Fire: Class 1

ISO9001: 2008 | Quality management system
ISOTS16949:2009 | The automotive industry quality management system
ISO14001:2004 | Standards for environmental management system
QC080000:2012 | The certificate for hazardous substances process management
OHSAS 18001:2007 | International standards for occupational health and safety



*Please contact your sales representative for the entire list of certificates applicable to your products

CANADIAN SOLAR INC.

Founded in 2001 in Canada, Canadian Solar Inc., (NASDAQ: CSIQ) is the world's TOP 3 solar power company. As a leading manufacturer of solar modules and PV project developer with about 6 GW of premium quality modules deployed around the world in the past 13 years, Canadian Solar is one of the most bankable solar companies in Europe, USA, Japan and China. Canadian Solar operates in six continents with customers in over 90 countries and regions. Canadian Solar is committed to providing high quality solar products, solar system solutions and services to customers around the world.



ELECTRICAL DATA | STC

Electrical Data	CS6X-300P	CS6X-305P	CS6X-310P
Nominal Maximum Power (Pmax)	300 W	305 W	310W
Optimum Operating Voltage (Vmp)	36.1 V	36.3 V	36.4V
Optimum Operating Current (Imp)	8.30 A	8.41 A	8.52A
Open Circuit Voltage (Voc)	44.6 V	44.8 V	44.9V
Short Circuit Current (Isc)	8.87 A	8.97 A	9.08A
Module Efficiency	15.63 %	15.90 %	16.16%
Operating Temperature	-40 °C~+85 °C		
Maximum System Voltage	1000 V (IEC) /600 V (UL)		
Maximum Series Fuse Rating	15 A		
Application Classification	Class A		
Power Tolerance	0 ~ +5 W		

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

ELECTRICAL DATA | NOCT

Electrical Data	CS6X-300P	CS6X-305P	CS6X-310P
Nominal Maximum Power (Pmax)	218 W	221 W	225W
Optimum Operating Voltage (Vmp)	32.9 V	33.1 V	33.2V
Optimum Operating Current (Imp)	6.61 A	6.68 A	6.77A
Open Circuit Voltage (Voc)	41.0 V	41.2 V	41.3V
Short Circuit Current (Isc)	7.19 A	7.27 A	7.36A

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

MODULE | MECHANICAL DATA

Specification	Data
Cell Type	Poly-crystalline, 6inch
Cell Arrangement	72 (6 x 12)
Dimensions	1954 x 982 x 40mm (76.93 x 38.7 x 1.57in)
Weight	22kg (48.5 lbs)
Front Cover	3.2mm tempered glass
Frame Material	Anodized aluminium alloy
J-BOX	IP67, 3 diodes
Cable	4mm ² (IEC)/12AWG(UL), 1150mm/1300mm**
Connectors	MC4 or MC4 comparable
Standard Packaging	24pcs, 608kg (quantity and weight per pallet)
Module Pieces Per Container	528pcs (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

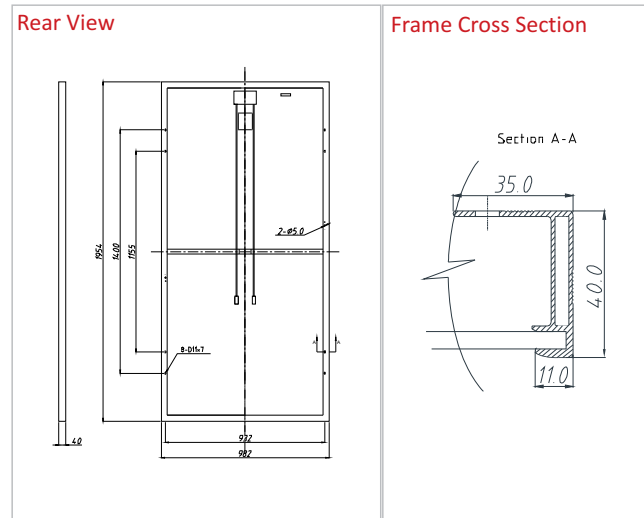
PERFORMANCE AT LOW IRRADIANCE

Industry leading performance at low irradiation, +96.5% module efficiency from an irradiance of 1000W/m² to 200W/m² (AM 1.5, 25 °C)

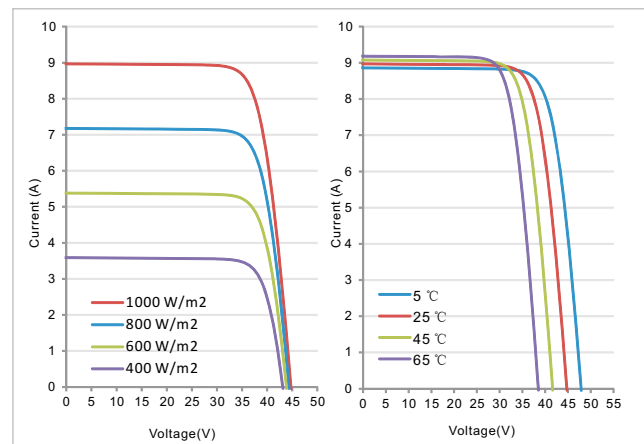
As there are different certification requirements in different markets, please contact your sales representative for the specific certificates applicable to your products. The specification and key features described in this Datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, 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.

**The CS6X with cable of 1300mm is only for Canadian market.

MODULE | ENGINEERING DRAWING



CS6X-305P | I-V CURVES



Partner Section