



QUARTECH MAX POWER CS6X 300 | 305 | 310P

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 / 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



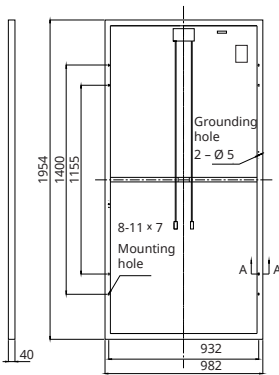
CANADIAN SOLAR INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading manufacturer of solar modules and PV project developer with about 8 GW of premium quality modules deployed around the world since 2011, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

CANADIAN SOLAR INC.

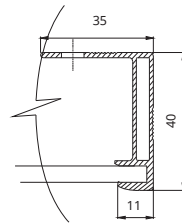
545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com, support@canadiansolar.com

MODULE / ENGINEERING DRAWING (mm)

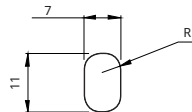
Rear View



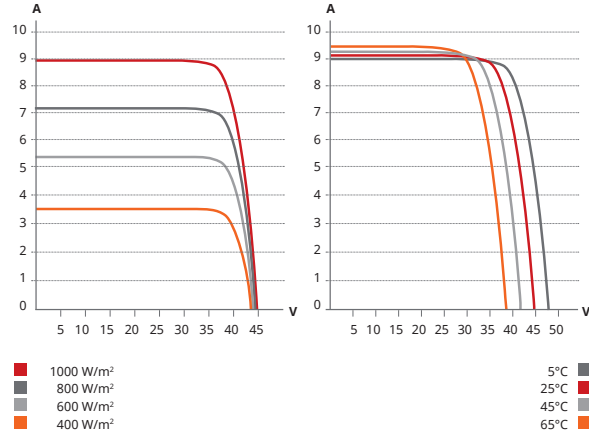
Frame Cross Section A-A



Mounting Hole



CS6X-305P / I-V CURVES



ELECTRICAL DATA / STC*

Electrical Data CS6X	300P	305P	310P
Nominal Max. Power (Pmax)	300 W	305 W	310 W
Opt. Operating Voltage (Vmp)	36.1 V	36.3 V	36.4 V
Opt. Operating Current (Imp)	8.30 A	8.41 A	8.52 A
Open Circuit Voltage (Voc)	44.6 V	44.8 V	44.9 V
Short Circuit Current (Isc)	8.87 A	8.97 A	9.08 A
Module Efficiency	15.63%	15.90%	16.16%
Operating Temperature	-40°C ~ +85°C		
Max. System Voltage	1000 V (IEC) or 1000 V (UL) or 600 V (UL)		
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC61730)		
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	300P	305P	310P
Nominal Max. Power (Pmax)	218 W	221 W	225 W
Opt. Operating Voltage (Vmp)	32.9 V	33.1 V	33.2 V
Opt. Operating Current (Imp)	6.61 A	6.68 A	6.77 A
Open Circuit Voltage (Voc)	41.0 V	41.2 V	41.3 V
Short Circuit Current (Isc)	7.19 A	7.27 A	7.36 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).

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.

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 mm ² (IEC) or 4 mm ² & 12 AWG 1000 V (UL 1000 V) or 12AWG (UL 600 V), 1150 mm or 1300 mm**
Connectors	MC4 or MC4 comparable
Stand. Packaging	24 pcs, 608 kg (quantity & weight per pallet)
Module Pieces per Container	528 pcs (40'HQ)

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

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



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