NEW

CanadianSolar

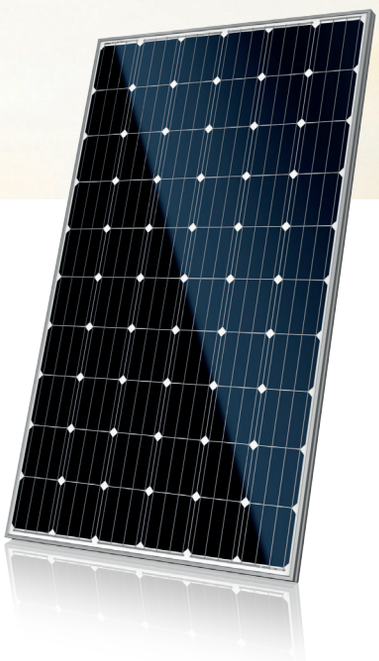
# CS6K-270|275|280M-SD

Canadian Solar's SmartDC module features an innovative integration of Canadian Solar's module technology and SolarEdge's power optimization for grid-tied PV applications.
By replacing the traditional junction-box with a power optimizer, the SmartDC module optimizes power output at module-level. With this feature, the SmartDC module can eliminate module-level mismatch and decrease shading losses. Furthermore, the SmartDC module provides module-level monitoring that allows effective system management and minimizes operational costs.

Optimized by solaredge



* Optional black frame avaliable upon request



## KEY FEATURES

25%

**Harvests up to 25% more energy from each module**
- Maximizes power from each individual module against potential mismatch risk
- Decreases shading losses

**Easy installation, simple system design**
- Integrated smart solution, no need to add other accessories
- Enhances the shading tolerance

**Reduces BoS Costs**
- Up to 11.25 kW ~ 12.75 kW per string allows for more modules to be based on different inverters

**Free module-level monitoring system**
- Full visibility of system performance with a free smartphone app

MORE

**Safety**
- Automatic drop of DC current and voltage when inverter or grid power is shut down

**25 years** linear power output warranty

**10 years** 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 / CE / MCS
UL 1703 / IEC 61215 performance: CEC listed (US)
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: VDE / Take-e-way

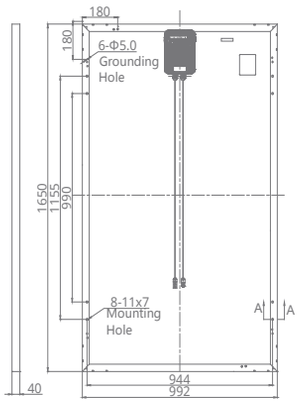
* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

**CANADIAN SOLAR INC.** is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading PV project developer and manufacturer of solar modules with over 15 GW deployed around the world since 2001, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

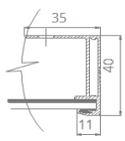
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## ENGINEERING DRAWING (mm)

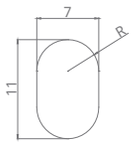
### Rear View



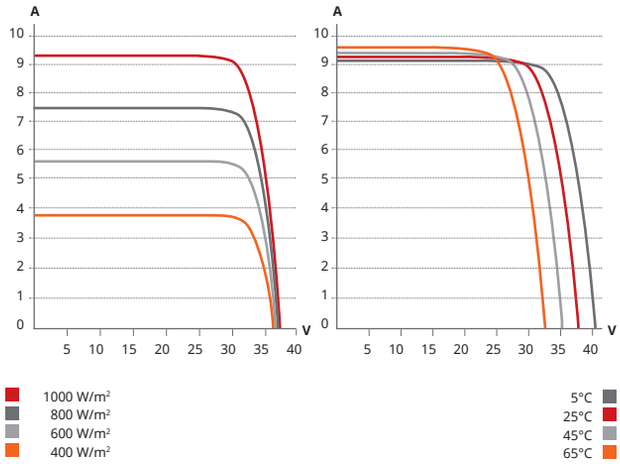

### Frame Cross Section A-A




### Mounting Hole




## CS6K-280M / I-V CURVES




## ELECTRICAL DATA / STC

**Power Optimizer connected to a SolarEdge Inverter**

| CS6K | 270M-SD | 275M-SD | 280M-SD |
|---|---|---|---|
| Nom. Max. PWR (Pmax STC) | 270 W | 275 W | 280 W |
| Nom. Max. PWR (Pmax NOCT) | 195 W | 199 W | 202 W |
| Open Circuit Voltage (Voc STC) | 38.2 V | 38.3 V | 38.5 V |
| Output Voltage Range (Vout) | 5-60 V | 5-60 V | 5-60 V |
| Max. Output Current (Imax) | 15 A | 15 A | 15 A |
| Max. Series Fuse Rating | 20 A | 20 A | 20 A |
| Module Efficiency | 16.50 % | 16.80 % | 17.11 % |
| Output During Standby (power optimizer disconnected from inverter or inverter off) | | 1 V | |

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

## MECHANICAL DATA OF PV MODULE

| Specification | Data |
|---|---|
| Cell Type | Mono-crystalline, 6 inch |
| Cell Arrangement | 60 (6×10) |
| Dimensions | 1650×992×40 mm (65.0×39.1×1.57 in) |
| Weight | 19.3 kg (42.5 lbs) |
| Front Cover | 3.2 mm tempered glass |
| Frame Material | Anodized aluminium alloy |
| J-Box | IP65 |
| Cable | PV1-F 1*6.0 mm² / 952 mm |
| Per Pallet | 26 pieces, 548 kg (1208 lbs) (quantity & weight) |
| Per container (40' HQ) | 728 pieces |

## PV SYSTEM DESIGN

| | | | | | |
|---|---|---|---|---|---|
| Min. String Length | EU & APAC | 1 ph | 8 | | |
| | | 3 ph | 16 | | |
| | | 3 ph - MV | 18 | | |
| | US & Canada | 1 ph | 8 | | |
| | | 3 ph (208 V) | 10 | | |
| Max. String Length | EU & APAC | 1 ph | 19 | 19 | 18 |
| | | 3 ph | 41 | 40 | 40 |
| | | 3 ph - MV | 47 | 46 | 45 |
| | US & Canada | 1 ph | 19 | 19 | 18 |
| | | 3 ph (208 V) | 22 | 21 | 21 |
| Max. Power per String (W) | EU & APAC | 1 ph | 5250 | | |
| | | 3 ph | 11250 | | |
| | | 3 ph - MV | 12750 | | |
| | US & Canada | 1 ph | 5250 | | |
| | | 3 ph (208 V) | 6000 | | |
| Parallel Strings of Diff. Lengths | | | Yes | | |
| Parallel Strings of Diff. Orientations | | | Yes | | |
| Operating Temperature | | | -40°C ~ +85°C | | |
| Max. System Voltage | | | 1000 V (IEC) / 600 V (UL) | | |
| Application Classification | | | Class A | | |
| Fire Rating | | | Type 1 (UL1703) / Class C (IEC61730) | | |
| Power Tolerance | | | 0 ~ +5 W | | |

## TEMPERATURE CHARACTERISTICS

| Specification | Data |
|---|---|
| Temperature Coefficient (Pmax) | -0.41% / °C |
| Temperature Coefficient (Voc) | -0.31% / °C |
| Temperature Coefficient (Isc) | 0.053 % / °C |
| Nominal Operating Cell Temperature | 45±2°C |

## STANDARD COMPLIANCE

| Specification | Standard |
|---|---|
| EMC | FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3 |
| PV Module | IEC61215, IEC61730, UL1703, CEC listing |
| PV Optimizer J-Box | EN50548, UL3730, IEC2109-1 (class II safety), UL1741 |
| Fire Safety | VDE-AR-E 2100-712:2013-05 |

## PARTNER SECTION

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