

## ALL-BLACK CS6K-290|295|300MS

Canadian Solar's All-Black CS6K-MS modules enhance the aesthetics of our 5 bus bar mono modules while providing a higher energy output. All-Black CS6K-MS modules are equipped with Mono-PERC cells, a dark colored backsheet and a black frame.

### KEY FEATURES



9 % more power than conventional modules



Excellent performance at low irradiance of up to: 97.5 %



Improved energy production due to low temperature coefficients



IP68 junction box for long-term weather endurance



Heavy snow load up to 6000 Pa, wind load up to 4000 Pa \*



**linear power output warranty**



**product warranty on materials and workmanship**

### MANAGEMENT SYSTEM CERTIFICATES\*

ISO 9001:2008 / 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

UL 1703 / CEC & FSEC listed (US)



\* 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 (USA), 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 30 GW deployed around the world since 2001, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

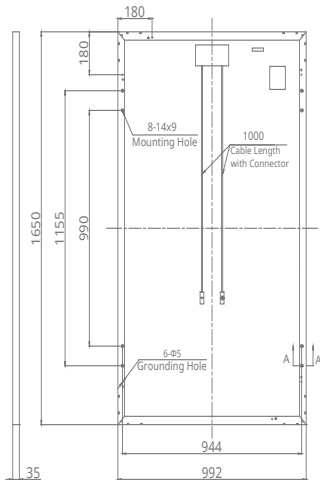
\*For detail information, please refer to Installation Manual.

**CANADIAN SOLAR (USA), INC.**

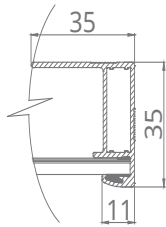
3000 Oak Road, Suite 400, Walnut Creek, CA 94597, USA | [www.canadiansolar.com/na](http://www.canadiansolar.com/na) | [sales.us@canadiansolar.com](mailto:sales.us@canadiansolar.com)

## ENGINEERING DRAWING (mm)

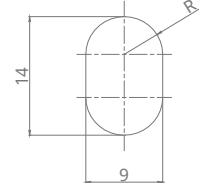
### Rear View



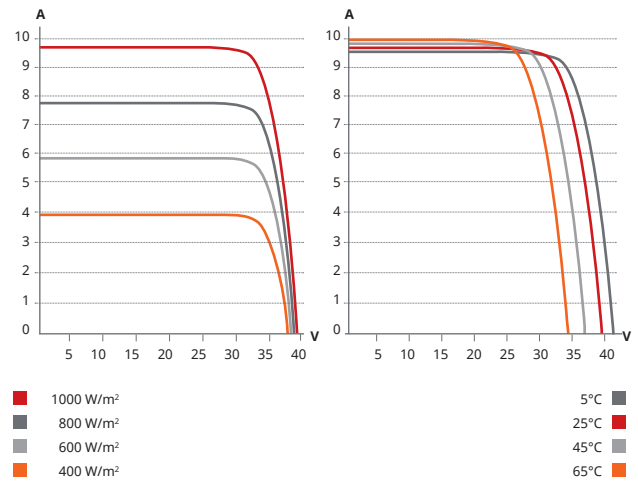
### Frame Cross Section A-A



### Mounting Hole



## ALL-BLACK CS6K-295MS / I-V CURVES



## ELECTRICAL DATA | STC\*

| All-Black CS6K               | 290MS                                   | 295MS  | 300MS  |
|------------------------------|---|--------|--------|
| Nominal Max. Power (Pmax)    | 290 W                                   | 295 W  | 300 W  |
| Opt. Operating Voltage (Vmp) | 32.1 V                                  | 32.3 V | 32.5 V |
| Opt. Operating Current (Imp) | 9.05 A                                  | 9.14 A | 9.24 A |
| Open Circuit Voltage (Voc)   | 39.3 V                                  | 39.5 V | 39.7 V |
| Short Circuit Current (Isc)  | 9.67 A                                  | 9.75 A | 9.83 A |
| Module Efficiency            | 17.72%                                  | 18.02% | 18.33% |
| Operating Temperature        | -40°C ~ +85°C                           |        |        |
| Max. System Voltage          | 1000 V (IEC/UL) or 1500 V (IEC/UL)      |        |        |
| Module Fire Performance      | TYPE 1 (UL 1703) or CLASS C (IEC 61730) |        |        |
| Max. Series Fuse Rating      | 20 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.

## MECHANICAL DATA

| Specification          | Data   |
|------------------------|--|
| Cell Type              | Mono-crystalline, 6 inch                         |
| Cell Arrangement       | 60 (6 x 10)                                      |
| Dimensions             | 1650 x 992 x 35 mm<br>(65.0 x 39.1 x 1.38 in)    |
| Weight                 | 18.2 kg (40.1 lbs)                               |
| Front Cover            | 3.2 mm tempered glass                            |
| Frame Material         | Anodized aluminium alloy                         |
| J-Box                  | IP68, 3 diodes                                   |
| Cable                  | 4.0 mm² (IEC), 12 AWG (UL),<br>1000 mm (39.4 in) |
| Connector              | T4 series  |
| Per Pallet             | 30 pieces  |
| Per Container (40' HQ) | 840 pieces                                       |

## ELECTRICAL DATA | NMOT\*

| All-Black CS6K               | 290MS  | 295MS  | 300MS  |
|------------------------------|--------|--------|--------|
| Nominal Max. Power (Pmax)    | 215 W  | 218 W  | 222 W  |
| Opt. Operating Voltage (Vmp) | 29.7 V | 29.8 V | 30.0 V |
| Opt. Operating Current (Imp) | 7.24 A | 7.32 A | 7.40 A |
| Open Circuit Voltage (Voc)   | 36.8 V | 37.0 V | 37.2 V |
| Short Circuit Current (Isc)  | 7.80 A | 7.87 A | 7.93 A |

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

## TEMPERATURE CHARACTERISTICS

| Specification                               | Data         |
|---|--------------|
| Temperature Coefficient (Pmax)              | -0.39 % / °C |
| Temperature Coefficient (Voc)               | -0.29 % / °C |
| Temperature Coefficient (Isc)               | 0.05 % / °C  |
| Nominal Module Operating Temperature (NMOT) | 43±3 °C      |

## PERFORMANCE AT LOW IRRADIANCE

Excellent performance at low irradiance, with an average relative efficiency of 97.5 % for irradiances between 200 W/m² and 1000 W/m² (AM 1.5, 25°C).

\*The specification and key features contained in this datasheet may deviate slightly from our actual products due to on-going innovation and product enhancement. Canadian Solar Inc. reserves the right to make necessary adjustments to the information described herein at any time without further notice.

## PARTNER SECTION

