

# Section Canadian Solar





Enhanced Product Warranty on Materials and Workmanship\*



Linear Power Performance Warranty\*

1<sup>st</sup> year power degradation no more than 2% Subsequent annual power degradation no more than 0.55%

\*According to the applicable Canadian Solar Limited Warranty Statement.

## **MANAGEMENT SYSTEM CERTIFICATES\***

ISO 9001:2015 / Quality management system ISO 14001:2015 / Standards for environmental management system ISO 45001: 2018 / International standards for occupational health & safety

## **PRODUCT CERTIFICATES\***

IEC 61215 / IEC 61730 / CE / INMETRO / MCS / UKCA UL 61730 / IEC 61701 / IEC 62716 / IEC 60068-2-68 UNI 9177 Reaction to Fire: Class 1 / Take-e-way



\* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

**CSI Solar Co., Ltd.** is committed to providing high quality solar products, solar system solutions and services to customers around the world. Canadian Solar was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey, and is a leading PV project developer and manufacturer of solar modules, with over 55 GW deployed around the world since 2001.

# HiKu7 Mono PERC 640 W ~ 670 W CS7N-640|645|650|655|660|665|670MS

## **MORE POWER**



Up to 5.7 % lower system cost

Up to 3.5 % lower LCOE

Module power up to 670 W

Module efficiency up to 21.6 %

Comprehensive LID / LeTID mitigation technology, up to 50% lower degradation

Better shading tolerance

## **MORE RELIABLE**



Minimizes micro-crack impacts

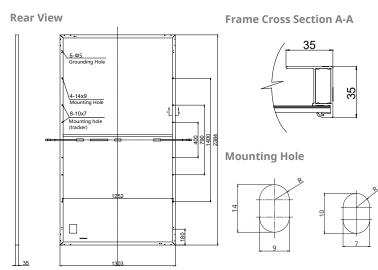
40 °C lower hot spot temperature,

greatly reduce module failure rate

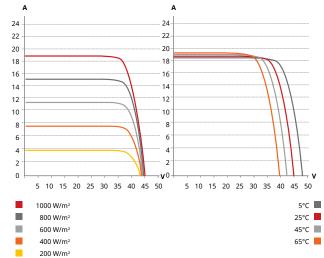
Heavy snow load up to 5400 Pa, wind load up to 2400 Pa\*

\* For detailed information, please refer to the Installation Manual.

# **ENGINEERING DRAWING (mm)**



## CS7N-650MS / I-V CURVES



# **ELECTRICAL DATA | STC\***

CS7N	640MS	645MS	650MS	655MS	660MS	665MS	670MS
Nominal Max. Power (Pmax)	640 W	645 W	650 W	655 W	660 W	665 W	670 W
Opt. Operating Voltage (Vmp)	)37.5 V	37.7 V	37.9 V	38.1 V	38.3 V	38.5 V	38.7 V
Opt. Operating Current (Imp)	17.07 A	17.11 A	17.16 A	17.20 A	A17.24 A	A17.28 A	17.32 A
Open Circuit Voltage (Voc)	44.6 V	44.8 V	45.0 V	45.2 V	45.4 V	45.6 V	45.8 V
Short Circuit Current (Isc)	18.31 A	18.35 A	18.39 A	18.43 A	A18.47 A	A18.51 A	18.55 A
Module Efficiency	20.6%	20.8%	20.9%	21.1%	21.2%	21.4%	21.6%
Operating Temperature	-40°C ~	+85°C					
Max. System Voltage	1500V	(IEC/UL)	) or 100	OV (IEC	/UL))		
Module Fire Performance		(UL 617 SS C (IEC			YPE 2 (U	L 61730	1000V)
Max. Series Fuse Rating	30 A						
Application Classification	Class A						
Power Tolerance	0 ~ + 1	0 W 0					
* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of							

\* Under Standard Test Conditions (STC) of irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C.

#### **ELECTRICAL DATA | NMOT\***

CS7N	640MS	645MS	650MS	655MS	660MS	665MS	670MS
Nominal Max. Power (Pmax)	480 W	484 W	487 W	491 W	495 W	499 W	502 W
Opt. Operating Voltage (Vmp	)35.2 V	35.3 V	35.5 V	35.7 V	35.9 V	36.1 V	36.3 V
Opt. Operating Current (Imp)	13.64 A	13.72 A	13.74 A	13.76 A	13.79 A	13.83 A	13.85 A
Open Circuit Voltage (Voc)	42.2 V	42.3 V	42.5 V	42.7 V	42.9 V	43.1 V	43.3 V
Short Circuit Current (Isc)	14.77 A	14.80 A	14.83 A	14.86 A	14.89 A	14.93 A	14.96 A
* Under Nominal Module Operating Te temperature 20°C, wind speed 1 m/s.	mperature	e (NMOT), i	irradiance	of 800 W/	m². spectru	um AM 1.5	, ambient

#### **MECHANICAL DATA**

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	132 [2 x (11 x 6) ]
Dimensions	2384 × 1303 × 35 mm
	(93.9 × 51.3 × 1.38 in)
Weight	34.4 kg (75.8 lbs)
Front Cover	3.2 mm tempered glass
Frame	Anodized aluminium alloy,
	crossbar enhanced
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 10 AWG (UL)
Cable Length (Including Connector)	460 mm (18.1 in) (+) / 340 mm (13.4 in) (-) (supply additional jumper cable: 2 lines / Pallet) or customized length*
Connector	T4 series or MC4-EVO2
Per Pallet	31 pieces
Per Container (40' HQ)	527 pieces

\* For detailed information, please contact your local Canadian Solar sales and technical representatives.

#### **TEMPERATURE CHARACTERISTICS**

Specification	Data
Temperature Coefficient (Pmax)	-0.34 % / °C
Temperature Coefficient (Voc)	-0.26 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 ± 3°C

#### **PARTNER SECTION**

\* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice. Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.