CanadianSolar



HiKu7 Mono PERC

645 W ~ 680 W

CS7N-645|650|655|660|665|670|675|680MS (IEC1000 V)
CS7N-645|650|655|660|665|670|675|680MS (IEC1500 V)

MORE POWER

680 W — Module power up to 680 W
Module efficiency up to 21.9 %

$ — Up to 3.5 % lower LCOE
Up to 5.7 % lower system cost

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

Better shading tolerance

MORE RELIABLE

40 °C lower hot spot temperature, greatly reduce module failure rate

Minimizes micro-crack impacts

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

25 Years — **Linear Power Performance Warranty***

12 Years Enhanced Product Warranty on Materials and Workmanship*

1st 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
IEC62941 : 2019 / Photovoltaic module manufacturing quality system

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
Canadian Solar recycles panels at the end of life cycle

* 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.

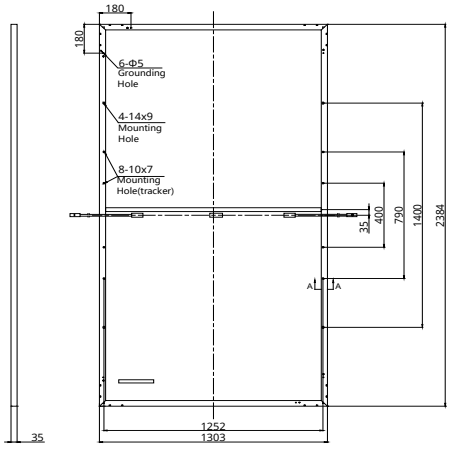
CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 22 years, it has successfully delivered over 88 GW of premium-quality solar modules across the world.

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

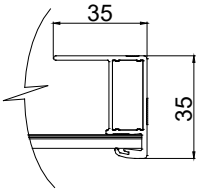
Canadian Solar MSS (Australia) Pty Ltd.
333 Drummond Street, Carlton VIC 3053, Australia, sales.au@csisolar.com, www.csisolar.com/au

ENGINEERING DRAWING (mm)

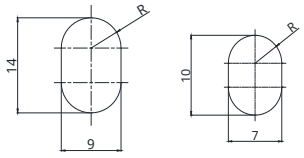
Rear View



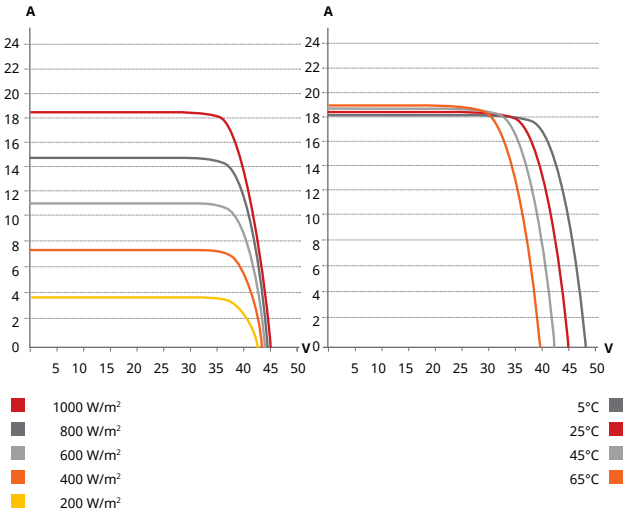
Frame Cross Section A-A



Mounting Hole



CS7N-650MS / I-V CURVES



ELECTRICAL DATA | STC*

CS7N	645MS	650MS	655MS	660MS	665MS	670MS	675MS	680MS
Nominal Max. Power (Pmax)	645 W	650 W	655 W	660 W	665 W	670 W	675 W	680 W
Opt. Operating Voltage (Vmp)	37.7 V	37.9 V	38.1 V	38.3 V	38.5 V	38.7 V	38.9 V	39.1 V
Opt. Operating Current (Imp)	17.11 A	17.16 A	17.20 A	17.24 A	17.28 A	17.32 A	17.36 A	17.40 A
Open Circuit Voltage (Voc)	44.8 V	45.0 V	45.2 V	45.4 V	45.6 V	45.8 V	46.0 V	46.2 V
Short Circuit Current (Isc)	18.35 A	18.39 A	18.43 A	18.47 A	18.51 A	18.55 A	18.59 A	18.63 A
Module Efficiency	20.8%	20.9%	21.1%	21.2%	21.4%	21.6%	21.7%	21.9%
Operating Temperature	-40°C ~ +85°C							
Max. System Voltage	1500V (IEC/UL)) or 1000V (IEC/UL))							
Module Fire Performance	TYPE 1 (UL 61730 1500V) or TYPE 2 (UL 61730 1000V) or CLASS C (IEC 61730)							
Max. Series Fuse Rating	30 A							
Application Classification	Class A							
Power Tolerance	0 ~ + 10 W							

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C. Measurement uncertainty: ±3 % (Pmax).

ELECTRICAL DATA | NMOT*

CS7N	645MS	650MS	655MS	660MS	665MS	670MS	675MS	680MS
Nominal Max. Power (Pmax)	484 W	487 W	491 W	495 W	499 W	502 W	506 W	510 W
Opt. Operating Voltage (Vmp)	35.3 V	35.5 V	35.7 V	35.9 V	36.1 V	36.3 V	36.5 V	36.7 V
Opt. Operating Current (Imp)	13.72 A	13.74 A	13.76 A	13.79 A	13.83 A	13.85 A	13.88 A	13.92 A
Open Circuit Voltage (Voc)	42.3 V	42.5 V	42.7 V	42.9 V	43.1 V	43.3 V	43.5 V	43.7 V
Short Circuit Current (Isc)	14.80 A	14.83 A	14.86 A	14.89 A	14.93 A	14.96 A	14.99 A	15.02 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.

MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	132 [2 x (11 x 6)]
Dimensions	2384 × 1305 × 35 mm (93.9 × 51.4 × 1.38 in)
Weight	34.4 kg (75.8 lbs)
Front Cover	3.2 mm tempered glass with anti-reflective coating
Frame	Anodized aluminium alloy, crossbar enhanced
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	410 mm (16.1 in) (+) / 250 mm (9.8 in) (-) or customized length*
Connector	Tlian: T6; Stäubli: PV-KST4-EVO2/XY, PV-KBT4-EVO2/XY or PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy
Per Pallet	31 pieces
Per Container (40' HQ)	558 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.

Canadian Solar MSS (Australia) Pty Ltd.
333 Drummond Street, Carlton VIC 3053, Australia, sales.au@csisolar.com, www.csisolar.com/au

Apr. 2023. All rights reserved, PV Module Product Datasheet V2.41C6_AU
* Manufactured and assembled in China, Thailand.