

Section CanadianSolar



MORE POWER

Lower LCOE & BOS cost

Module efficiency up to 20.9 %

Module power up to 425 W

HiKu Mono PERC

400 W ~ 425 W

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

CS3N-400 | 405 | 410 | 415 | 420 | 425MS (IEC1000 V) CS3N-400 | 405 | 410 | 415 | 420 | 425MS (IEC1500 V)

Better shading tolerance

MORE RELIABLE



Minimizes micro-crack impacts

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



Industry Leading Product Warranty on Materials and Workmanship*



Linear Power Performance Warranty*

1st year power degradation no more than 2% Subsequent annual power degradation no more than 0.55%

*Subject to the terms and conditions contained in the applicable Canadian Solar Limited Warranty Statement. Also this 25-year limited product warranty is available only for products installed and operating on residential rooftops in certain regions.

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 FSEC (US Florida) UL 61730 / IEC 61701 / IEC 62716 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 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.

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

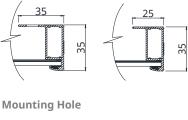
Canadian Solar MSS (Australia) Pty Ltd.

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ENGINEERING DRAWING (mm)

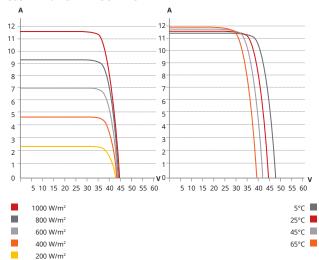
Rear View







CS3N-410MS / I-V CURVES



ELECTRICAL DATA | STC*

CS3N	400MS	405MS	410MS	415MS	420MS	425MS
Nominal Max. Power (Pmax)	400 W	405 W	410 W	415 W	420 W	425 W
Opt. Operating Voltage (Vmp)	37.2 V	37.4 V	37.6 V	37.8 V	38.0 V	38.2 V
Opt. Operating Current (Imp)	10.76 A	10.83 A	10.92 A	10.98 A	11.06 A	11.13 A
Open Circuit Voltage (Voc)	44.5 V	44.7 V	44.9 V	45.1 V	45.3 V	45.5 V
Short Circuit Current (Isc)	11.50 A	11.56 A	11.62 A	11.68 A	11.74 A	11.80 A
Module Efficiency	19.7%	19.9%	20.2%	20.4%	20.7%	20.9%
Operating Temperature	-40°C ~	+85°C				
Max. System Voltage	1500V (IEC/UL)	or 1000	/ (IEC/U	L)	
Module Fire Performance			30 1500\ S C (IEC		'E 2 (UL (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/m ² , spectrum AM 1.5 and cell tempera-						

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

ELECTRICAL DATA | NMOT*

CS3N	400MS	405MS	410MS	415MS	420MS	425MS
Nominal Max. Power (Pmax)	300 W	304 W	308 W	311 W	315 W	319 W
Opt. Operating Voltage (Vmp)	34.9 V	35.1 V	35.2 V	35.4 V	35.6 V	35.8 V
Opt. Operating Current (Imp)	8.60 A	8.66 A	8.73 A	8.78 A	8.84 A	8.90 A
Open Circuit Voltage (Voc)	42.1 V	42.3 V	42.4 V	42.6 V	42.8 V	43.0 V
Short Circuit Current (Isc)	9.27 A	9.32 A	9.37 A	9.42 A	9.47 A	9.51 A
* Under Nominal Module Operating Ter	nperature	(NMOT), ir	radiance o	f 800 W/m ²	- 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	1940 X 1048 X 35 mm
	(76.4 X 41.3 X 1.38 in)
Weight	22.5 kg (49.6 lbs)
Front Cover	3.2 mm tempered glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	Portrait: 400 mm (15.7 in) (+) / 280 mm (11.0 in) (-) (supply additional cable jumper: 2 lines/pallet); land- scape: 1250 mm (49.2 in)*
Connector	PV-KST4/xy-UR, PV-KBT4/xy-UR (IEC 1000 V) or T4-PC-1 (IEC 1500 V) or PV-KST4-EVO2/XY, PV-KBT4-EVO2/XY (IEC 1500 V)
Per Pallet	30 pieces

Per Container (40' HQ) 720 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 Temperatu	ure 41 ± 3°C

PARTNER SECTION

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* 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.

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July 2021. All rights reserved, PV Module Product Datasheet V2.8C25_AU * Manufactured and assembled in China, Thailand and Vietnam.