Preliminary Technical Information Sheet



HiKuPro Mono super high power mono perc module 400 W ~ 420 W

CS3N-400|405|410|415|420MS

Module power up to 420 W

Module efficiency up to 21.0 %

MORE POWER



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

Lower LCOE & BOS cost

Better shading tolerance

MORE RELIABLE



Minimizes micro-crack impacts

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





linear power output warranty*



enhanced product warranty on materials and workmanship*

*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 OHSAS 18001:2007 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

* 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. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 40 GW deployed around the world since 2001.

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

ENGINEERING DRAWING (mm)

Rear View Frame Cross Section A - A B - B 28 19 6-Φ5 Grounding Hole 4-14x9 Mounting Hole 35 2 0 155 **Mounting Hole** 180 1011

ELECTRICAL DATA | STC*

CS3N	400MS	405MS	410MS	415MS	420MS	
Nominal Max. Power (Pmax)	400 W	405 W	410 W	415 W	420 W	
Opt. Operating Voltage (Vmp)	37.1 V	37.3 V	37.5 V	37.7 V	37.9 V	
Opt. Operating Current (Imp)	10.79 A	10.86 A	10.94 A	11.01 A	11.09 A	
Open Circuit Voltage (Voc)	44.4 V	44.6 V	44.8 V	45.0 V	45.2 V	
Short Circuit Current (Isc)	11.52 A	11.58 A	11.63 A	11.69 A	11.75 A	
Module Efficiency	20.0%	20.2%	20.5%	20.7%	21.0%	
Operating Temperature	-40°C ~ +85°C					
Max. System Voltage	1500V (IEC/UL) or 1000V (IEC/UL)					
Module Fire Performance	TYPE 1 (UL 61730) or					
	CLASS C (IEC 61730)					
Max. Series Fuse Rating	20 A					
Application Classification	Class A					
Power Tolerance	0 ~ + 10	W				
	C 11					

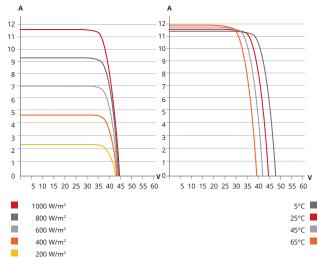
* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

ELECTRICAL DATA | NMOT*

CS3N	400MS	405MS	410MS	415MS	420MS
Nominal Max. Power (Pmax)	298 W	302 W	306 W	310 W	313 W
Opt. Operating Voltage (Vmp)	34.6 V	34.8 V	35.0 V	35.2 V	35.3 V
Opt. Operating Current (Imp)	8.62 A	8.68 A	8.75 A	8.81 A	8.88 A
Open Circuit Voltage (Voc)	41.8 V	42.0 V	42.2 V	42.3 V	42.5 V
Short Circuit Current (Isc)	9.29 A	9.34 A	9.38 A	9.43 A	9.48 A

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m^{2,} spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

CS3N-410MS / I-V CURVES



MECHANICAL DATA

Specification	Data	
Cell Type	Mono-crystalline	
Cell Arrangement	132 [2 X (11 X 6)]	
Dimensions	1912 X 1048 X 35 mm	
	(75.3 X41.3 X1.38 in)	
Weight	22.3 kg (49.2 lbs)	
Front Cover	3.2 mm tempered glass	
Frame	Anodized aluminium alloy,	
	crossbar enhanced	
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) (-); landscape: 1250 mm (49.2 in)*	
Connector	T4 series or H4 UTX or MC4-EVO2	
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)	-0.35 % / °C
Temperature Coefficient (Voc)	-0.27 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	42 ± 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. Canadian Solar Inc. 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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