



HiKu Mono 400 W ~ 425 W

CS3N-400 | 405 | 410 | 415 | 420 | 425MS

MORE POWER



Module power up to 425 W Module efficiency up to 20.9 %



Lower LCOE & BOS cost



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



Better shading tolerance

MORE RELIABLE



Minimizes micro-crack impacts



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



*Black frame product can be provided upon request.



Enhanced 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%

*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

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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.

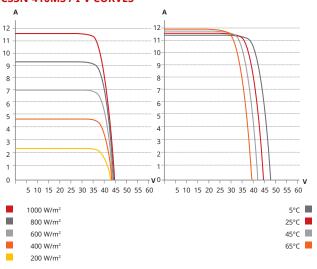
CANADIAN SOLAR INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. Canadian Solar was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey, and is a leading PV project developer and manufacturer of solar modules, with over 46 GW deployed around the world since 2001.

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

ENGINEERING DRAWING (mm)

Rear View Frame Cross Section 180 **B** - **B** 1940 300 1155 **Mounting Hole** 1000

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 | | (UL 6173 or CLAS | | | E 2 (UL (| 51730 |
| Max. Series Fuse Rating | 20 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.

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 mm ² (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.

ELECTRICAL DATA | NMOT*

| CS3N | 400MS | 405MS | 410MS | 415MS | 420MS | 425MS |
|------------------------------|--------|--------|--------|--------|--------|--------|
| Nominal Max. Power (Pmax) | 298 W | 302 W | 306 W | 310 W | 313 W | 317 W |
| Opt. Operating Voltage (Vmp) | 34.7 V | 34.9 V | 35.1 V | 35.2 V | 35.4 V | 35.6 V |
| Opt. Operating Current (Imp) | 8.60 A | 8.66 A | 8.72 A | 8.81 A | 8.85 A | 8.91 A |
| Open Circuit Voltage (Voc) | 41.9 V | 42.1 V | 42.2 V | 42.4 V | 42.6 V | 42.8 V |
| Short Circuit Current (Isc) | 9.28 A | 9.33 A | 9.38 A | 9.42 A | 9.47 A | 9.52 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.

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 Temperatur | e 42 ± 3°C |

PARTNER SECTION

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.

 $[\]hbox{* 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.