





# HiKu Mono PERC

## F23 Frame



### 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 8100 Pa, enhanced wind load up to 6000 Pa\*



**Industry Leading 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%**

\*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



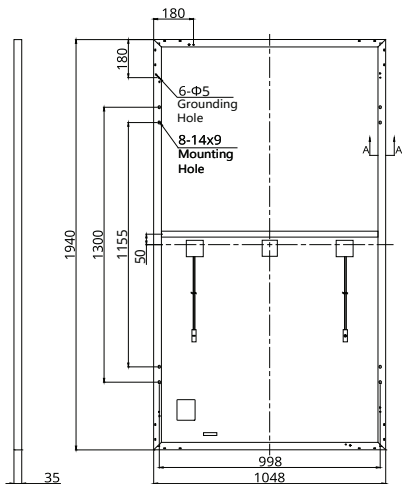
\* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates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

**CSI SOLAR (USA) 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 20 years, it has successfully delivered over 63 GW of premium-quality solar modules across the world.

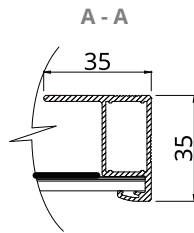
\* For detailed information, please refer to Installation Manual.

## ENGINEERING DRAWING (mm)

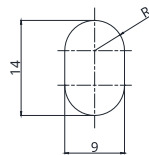
### Rear View



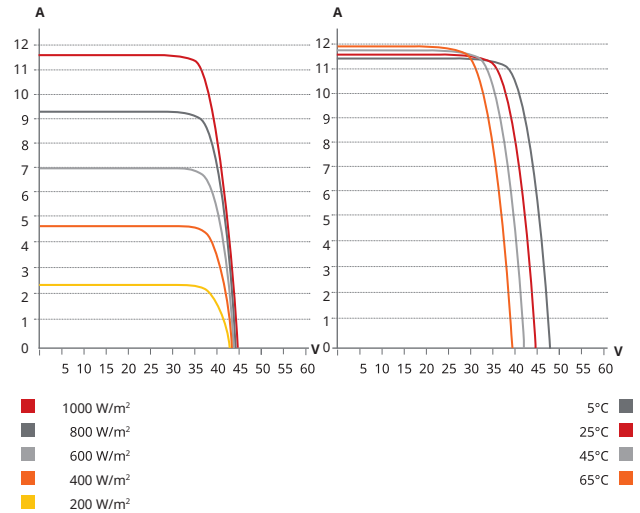
### Frame Cross Section



### Mounting Hole



## 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 (UL) or 1000V (UL)					
Module Fire Performance	TYPE 1 (UL 61730 1500V) or TYPE 2 (UL 61730 1000V)					
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/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C.

## 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 Temperature (NMOT), irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

\* 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.

## 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	23.4 kg (51.6 lbs)
Front Cover	3.2 mm tempered glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	12 AWG (UL)

Cable Length 1650 mm (65.0 in) (-) / 1000 mm (39.4 in) (+)\*

Connector T4 or MC4 series

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 Temperature	41 ± 3°C

## PARTNER SECTION

