HiDM
High density MONO PERC module
400W~420W
CS1U-400|405|410|415|420MS

MORE POWER

Maximize the light absorption area, module efficiency up to 20.37%

Low temperature coefficient (Pmax): -0.37 % / °C

Better shading tolerance

MORE RELIABLE

Lower internal current, lower hot spot temperature

Cell crack risk limited in small region, enhance the module reliability

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

25 years linear power output warranty

10 years product warranty on materials and workmanship

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*
IEC 61215 / IEC 61730: VDE / CE / MCS
IEC 61701 ED2: VDE / IEC 62716: VDE
Take-e-way

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 33 GW deployed around the world since 2001.

CANADIAN SOLAR INC.
545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com, support@canadiansolar.com
PARTNER SECTION

Rear View Frame Cross Section A-A

Mounting Hole

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.

ELECTRICAL DATA | STC*

CS1U 400MS 405MS 410MS 415MS 420MS
Nominal Max. Power (Pmax) 400 W 405 W 410 W 415 W 420 W
Opt. Operating Voltage (Vmp) 44.1 V 44.3 V 44.5 V 44.7 V 44.9 V
Open Circuit Voltage ( Voc ) 53.4 V 53.5 V 53.6 V 53.7 V 53.8 V
Short Circuit Current (Isc) 9.60 A 9.65 A 9.70 A 9.75 A 9.80 A
Module Efficiency 19.40% 19.65% 19.89% 20.13% 20.37%
Operating Temperature -40°C ~ +85°C
Max. System Voltage 1500V (IEC) or 1000V (IEC)
Module Fire Performance CLASS C (IEC 61730)
Max. Series Fuse Rating 15 A
Application Classification Class A
Power Tolerance 0 ~ +5 W

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

ELECTRICAL DATA | NMOT*

CS1U 400MS 405MS 410MS 415MS 420MS
Nominal Max. Power (Pmax) 296 W 300 W 304 W 307 W 311 W
Opt. Operating Voltage (Vmp) 40.8 V 41.0 V 41.2 V 41.4 V 41.5 V
Opt. Operating Current (Imp) 7.26 A 7.32 A 7.37 A 7.43 A 7.48 A
Open Circuit Voltage ( Voc ) 49.9 V 50.0 V 50.1 V 50.2 V 50.3 V
Short Circuit Current (Isc) 7.75 A 7.79 A 7.83 A 7.87 A 7.91 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
Dimensions 2078 x 992 x 35 mm
(81.8 x 39.1 x 1.38 in)
Weight 23.4 kg (51.6 lbs)
Front Cover 3.2 mm tempered glass
Frame Anodized aluminium alloy
J-box IP67, 4 bypass diodes
Cable 4.0 mm² (IEC)
Cable length 1000 mm (39.4 in) (+) and 640 mm (Including connector) (25.2 in) (-); leap-frog connection: 1780 mm (70.1 in)**
Connector T4 series
Per Pallet 30 pieces
Per Container (40' HQ) 660 pieces

* Adjacent two modules (portrait: left and right modules, landscape: up and down modules) need to be rotated 180 degrees.
** Need to confirm with the tracker suppliers there are no mounting or operation risks when cables go across the torque tube and bearing house.

TEMPERATURE CHARACTERISTICS

Specification Data

Temperature Coefficient (Pmax) -0.37 % / °C
Temperature Coefficient (Voc) -0.29 % / °C
Temperature Coefficient (Isc) 0.05 % / °C
Nominal Module Operating Temperature 43±3 °C

PARTNER SECTION

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