Preliminary Technical Information Sheet





# **HiKu** SUPER HIGH POWER MONO PERC MODULE **425 W ~ 450 W** CS3W-425 | 430 | 435 | 440 | 445 | 450MS

# **MORE POWER**



26 % more power than conventional modules

Up to 4.5 % lower LCOE Up to 2.7 % lower system cost

Low NMOT: 42  $\pm$  3 °C Low temperature coefficient (Pmax): -0.36 % / °C



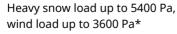
Better shading tolerance

## **MORE RELIABLE**



Lower internal current, lower hot spot temperature

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







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\***

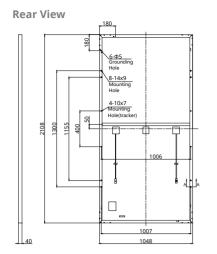
IEC 61215 / IEC 61730: VDE / CE (Expected in December, 2019)

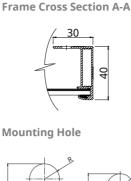
\* As there are different certification requirements in different markets, please contact your local Canadian Solar sales representative for the specific certificates applicable to the products in the region in which the products are to be used.

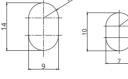
**CANADIAN SOLAR INC.** is committed to providing high quality solar products, solar system solutions and services to customers around the world. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 36 GW deployed around the world since 2001.

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

### **ENGINEERING DRAWING (mm)**







# ELECTRICAL DATA | STC\*

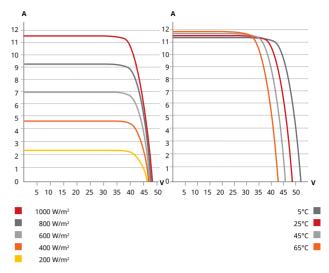
CS3W	425MS	430MS	435MS	440MS	445MS	450MS
Nominal Max. Power (Pmax)	425 W	430 W	435 W	440 W	445 W	450 W
Opt. Operating Voltage (Vmp)	39.5 V	39.7 V	39.9 V	40.1 V	40.3 V	40.5 V
Opt. Operating Current (Imp)	10.76 A	10.84 A	10.91 A	10.98 A	11.05 A	11.12 A
Open Circuit Voltage (Voc)	47.7 V	47.9 V	48.1 V	48.3 V	48.5 V	48.7 V
Short Circuit Current (Isc)	11.37 A	11.42 A	11.47 A	11.53 A	11.59 A	11.65 A
Module Efficiency	19.24%	19.46%	19.69%	19.92%	20.14%	20.37%
Operating Temperature	-40°C ~	+85°C				
Max. System Voltage	1500V (	IEC/UL)	or 1000	/ (IEC/U	L)	
Module Fire Performance	TYPE 1 (UL 1703) or					
	CLASS C (IEC 61730)					
Max. Series Fuse Rating	20 A					
Application Classification	Class A					
Power Tolerance	0~+5	N				
	<u>.</u>					

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

#### **ELECTRICAL DATA | NMOT\***

CS3W	425MS	430MS	435MS	440MS	445MS	450MS
Nominal Max. Power (Pmax)	316 W	320 W	324 W	328 W	331 W	335 W
Opt. Operating Voltage (Vmp)	36.8 V	36.9 V	37.1 V	37.3 V	37.5 V	37.7 V
Opt. Operating Current (Imp)	8.60 A	8.67 A	8.73 A	8.79 A	8.84 A	8.89 A
Open Circuit Voltage (Voc)	44.7 V	44.9 V	45.1 V	45.3 V	45.5 V	45.6 V
Short Circuit Current (Isc)	9.17 A	9.21 A	9.25 A	9.30 A	9.35 A	9.40 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.						

CS3W-435MS / I-V CURVES



# **MECHANICAL DATA**

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	144 [2 X (12 X 6) ]
Dimensions	2108 X1048 X40 mm
	(83.0 X 41.3 X 1.57 in)
Weight	24.9 kg (54.9 lbs)
Front Cover	3.2 mm tempered glass
Frame	Anodized aluminium alloy,
	crossbar enhanced
J-Box	IP68, 3 bypass diodes
Cable	4 mm <sup>2</sup> (IEC), 12 AWG (UL)
Cable Length (Including Connector)	Portrait: 500 mm (19.7 in) (+) / 350 mm (13.8 in) (-); landscape: 1400 mm (55.1 in); leap-frog connection: 1670 mm (65.7 in)*
Connector	T4 series or H4 UTX or MC4-EVO2
Per Pallet	27 pieces
Per Container (40' HQ)	594 pieces

\* For detailed information, please contact your local Canadian Solar sales and technical representatives.

#### **TEMPERATURE CHARACTERISTICS**

Specification	Data			
Temperature Coefficient (Pmax)	-0.36 % / °C			
Temperature Coefficient (Voc)	-0.29 % / °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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