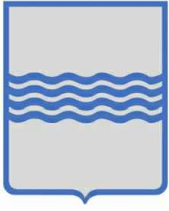


Regione Basilicata

Comune di Matera



Committente:



CANADIAN SOLAR CONSTRUCTION s.r.l.  
via Mercato, 3-5 - 20121 Milano (MI)  
c.f. IT09360300967



Titolo del Progetto:

**Progetto per la realizzazione e l'esercizio di un impianto fotovoltaico denominato "Sant'Eustachio" avente potenza nominale pari a 19,98 MWp**

Documento:

**PROGETTO DEFINITIVO**

Richiesta Autorizzazione Unica ai sensi del D. Lgs. 387 del 29/09/2003

N° Tavola:

**A.12.b.3**

Elaborato:

**SCHEMI FUNZIONALI DEI SINGOLI PANNELLI**

SCALA:

-

FOGLIO:

1 di 1

FORMATO:

A4

Folder: **Impianto**

Nome file: **A.12.b.3\_Schemi\_funzionali\_pannelli.pdf**

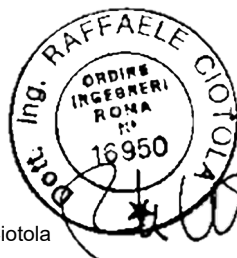
Progettazione:



**NEW DEVELOPMENTS**

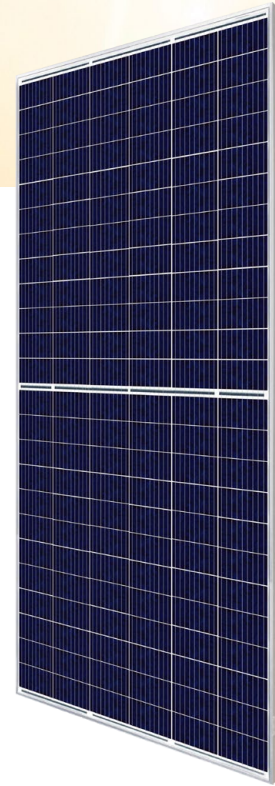
**NEW DEVELOPMENTS S.r.l**  
Piazza Europa, 14  
87100 Cosenza (CS)

Progettista:



dott. ing. Raffaele Ciotola

Rev:	Data Revisione	Descrizione Revisione	Redatto	Controllato	Approvato
00	15/10/2019	PRIMA EMISSIONE	RC	NewDev	CSC



# HiKu

## SUPER HIGH POWER POLY PERC MODULE

400 W ~ 415 W

CS3W-400 | 405 | 410 | 415P

### MORE POWER



24 % 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):  
-0.37 % / °C



Innovative module design,  
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 3600 Pa



linear power output warranty



product warranty on materials  
and workmanship

### MANAGEMENT SYSTEM CERTIFICATES\*

ISO 9001:2008 / Quality management system  
ISO 14001:2004 / Standards for environmental management system  
OHSAS 18001:2007 / International standards for occupational health & safety

### PRODUCT CERTIFICATES\*

IEC 61215 / IEC 61730: 2005 & 2016: VDE / CE  
UL 1703: CSA



\* Please contact your local Canadian Solar sales representative for the specific product certificates applicable in your market.

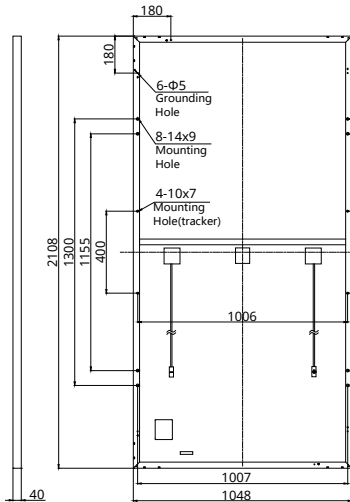
**CANADIAN SOLAR INC.** is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading PV project developer and manufacturer of solar modules with about 30 GW deployed around the world since 2001, Canadian Solar Inc. is one of the most bankable solar companies worldwide.

### CANADIAN SOLAR INC.

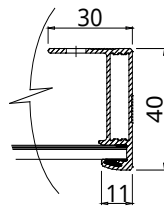
545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, [www.canadiansolar.com](http://www.canadiansolar.com), [support@canadiansolar.com](mailto:support@canadiansolar.com)

## ENGINEERING DRAWING (mm)

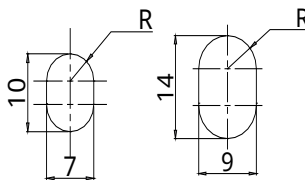
### Rear View



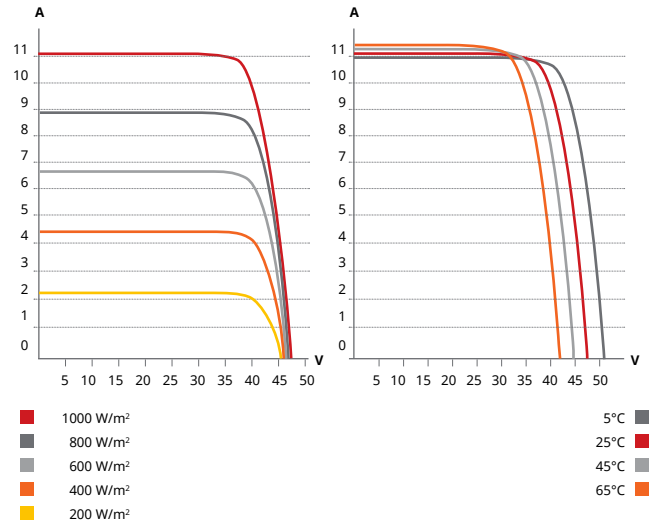
### Frame Cross Section A-A



### Mounting Hole



## CS3W-410P / I-V CURVES



## ELECTRICAL DATA | STC\*

CS3W	400P	405P	410P	415P
Nominal Max. Power (P <sub>max</sub> )	400 W	405 W	410 W	415 W
Opt. Operating Voltage (V <sub>mp</sub> )	38.7 V	38.9 V	39.1 V	39.3 V
Opt. Operating Current (I <sub>mp</sub> )	10.34 A	10.42 A	10.49 A	10.56 A
Open Circuit Voltage (V <sub>oc</sub> )	47.2 V	47.4 V	47.6 V	47.8 V
Short Circuit Current (I <sub>sc</sub> )	10.90 A	10.98 A	11.06 A	11.14 A
Module Efficiency	18.11%	18.33%	18.56%	18.79%
Operating Temperature	-40°C ~ +85°C			
Max. System Voltage	1500V (IEC/UL) or 1000V (IEC/UL)			
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 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\*

CS3W	400P	405P	410P	415P
Nominal Max. Power (P <sub>max</sub> )	297 W	301 W	304 W	308 W
Opt. Operating Voltage (V <sub>mp</sub> )	35.3 V	35.5 V	35.7 V	35.9 V
Opt. Operating Current (I <sub>mp</sub> )	8.42 A	8.48 A	8.52 A	8.58 A
Open Circuit Voltage (V <sub>oc</sub> )	44.2 V	44.4 V	44.6 V	44.8 V
Short Circuit Current (I <sub>sc</sub> )	8.78 A	8.85 A	8.90 A	8.97 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.

## MECHANICAL DATA

Specification	Data
Cell Type	Poly-crystalline
Cell Arrangement	144 [2 X (12 X 6)]
Dimensions	2108 X 1048 X 40 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: 350 mm (13.8 in); landscape: 1400 mm (55.1 in); leap-frog connection: 1700 mm (66.9 in)*
Connector	T4 series
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 (P <sub>max</sub> )	-0.37 % / °C
Temperature Coefficient (V <sub>oc</sub> )	-0.29 % / °C
Temperature Coefficient (I <sub>sc</sub> )	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.

## CANADIAN SOLAR INC.

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