

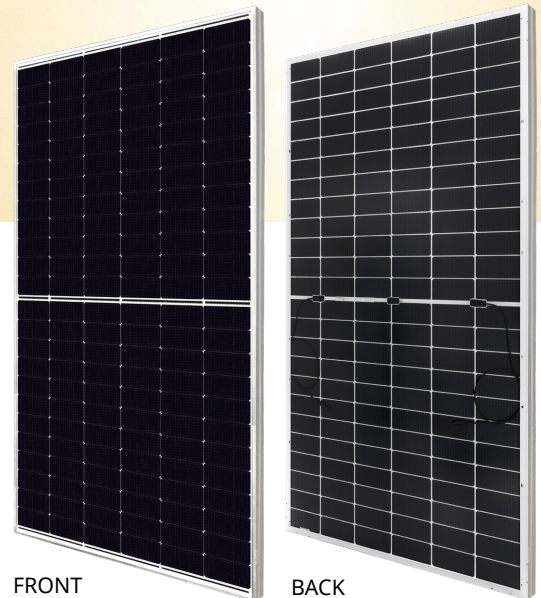


TOPBiHiKu6

N-type Bifacial TOPCon Technology

585 W ~ 610 W

CS6.1-72TB-585 | 590 | 595 | 600 | 605 | 610



MORE POWER



Module power up to 610 W
Module efficiency up to 22.6 %



Up to 85% Power Bifaciality,
more power from the back side



Excellent anti-LeTID & anti-PID performance.
Low power degradation, high energy yield



Lower temperature coefficient (Pmax): $-0.29\%/^{\circ}\text{C}$,
increases energy yield in hot climate



Lower LCOE & system cost



Enhanced Product Warranty on Materials
and Workmanship*



Linear Power Performance Warranty*

1st year power degradation no more than 1%
Subsequent annual power degradation no more than 0.4%

*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
IEC62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

* 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.

MORE RELIABLE



Minimizes micro-crack impacts

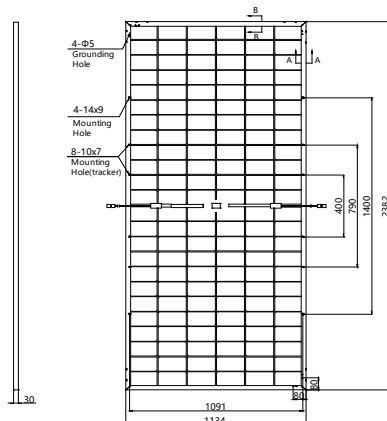


Heavy snow load up to 5400 Pa,
wind load up to 2400 Pa*

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

CSI Solar 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 22 years, it has successfully delivered around 100 GW of premium-quality solar modules across the world.

Rear View



Frame Cross Section

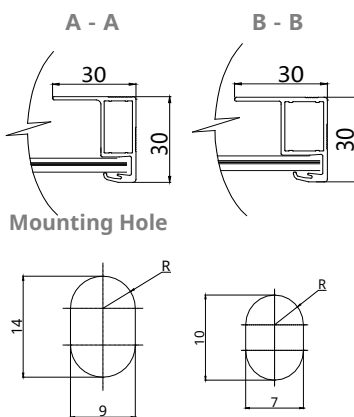


Figure 1 consists of two graphs, A and B, showing the effect of irradiance and temperature on the photovoltaic effect of the polymer. Both graphs plot current density (mA/cm²) on the y-axis (0 to 15) against voltage (V) on the x-axis (0 to 60).

Graph A shows the effect of irradiance (200, 400, 600, 800, and 1000 W/m²) at 5°C, 25°C, 45°C, and 65°C. The current density increases with increasing irradiance and decreasing temperature. The 1000 W/m² curve at 5°C shows the highest current density, reaching approximately 14.5 mA/cm² at 0 V and dropping to 0 at approximately 50 V. The 200 W/m² curve at 65°C shows the lowest current density, reaching approximately 3.0 mA/cm² at 0 V and dropping to 0 at approximately 45 V.

Graph B shows the effect of temperature (5°C, 25°C, 45°C, and 65°C) at 200, 400, 600, 800, and 1000 W/m². The current density decreases with increasing temperature. The 1000 W/m² curve at 5°C shows the highest current density, reaching approximately 14.5 mA/cm² at 0 V and dropping to 0 at approximately 50 V. The 200 W/m² curve at 65°C shows the lowest current density, reaching approximately 3.0 mA/cm² at 0 V and dropping to 0 at approximately 45 V.

		Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)	Module Efficiency
CS6.1-72TB-585		585 W	42.1 V	13.90 A	51.7 V	14.35 A	21.7%
Bifacial Gain**	5%	614 W	42.1 V	14.60 A	51.7 V	15.07 A	22.7%
	10%	644 W	42.1 V	15.29 A	51.7 V	15.79 A	23.8%
	20%	702 W	42.1 V	16.68 A	51.7 V	17.22 A	26.0%
CS6.1-72TB-590		590 W	42.3 V	13.95 A	51.9 V	14.42 A	21.8%
Bifacial Gain**	5%	620 W	42.3 V	14.65 A	51.9 V	15.14 A	23.0%
	10%	649 W	42.3 V	15.35 A	51.9 V	15.86 A	24.0%
	20%	708 W	42.3 V	16.74 A	51.9 V	17.30 A	26.2%
CS6.1-72TB-595		595 W	42.5 V	14.01 A	52.1 V	14.48 A	22.0%
Bifacial Gain**	5%	625 W	42.5 V	14.71 A	52.1 V	15.20 A	23.1%
	10%	655 W	42.5 V	15.41 A	52.1 V	15.93 A	24.2%
	20%	714 W	42.5 V	16.81 A	52.1 V	17.38 A	26.4%
CS6.1-72TB-600		600 W	42.7 V	14.06 A	52.3 V	14.52 A	22.2%
Bifacial Gain**	5%	630 W	42.7 V	14.76 A	52.3 V	15.25 A	23.3%
	10%	660 W	42.7 V	15.46 A	52.3 V	15.97 A	24.4%
	20%	720 W	42.7 V	16.87 A	52.3 V	17.42 A	26.7%
CS6.1-72TB-605		605 W	42.9 V	14.12 A	52.5 V	14.59 A	22.4%
Bifacial Gain**	5%	635 W	42.9 V	14.83 A	52.5 V	15.32 A	23.5%
	10%	666 W	42.9 V	15.53 A	52.5 V	16.05 A	24.7%
	20%	726 W	42.9 V	16.95 A	52.5 V	17.51 A	26.9%
CS6.1-72TB-610		610 W	43.1 V	14.17 A	52.8 V	14.66 A	22.6%
Bifacial Gain**	5%	641 W	43.1 V	14.88 A	52.8 V	15.39 A	23.7%
	10%	671 W	43.1 V	15.59 A	52.8 V	16.13 A	24.8%
	20%	732 W	43.1 V	17.01 A	52.8 V	17.59 A	27.1%

**** Bifacial Gain:** The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1500 V (IEC/UL) or 1000 V (IEC/UL)
Module Fire Performance	TYPE 29 (UL 61730) or CLASS C (IEC61730)
Max. Series Fuse Rating	30 A
Application Classification	Class A
Power Tolerance	0 ~ + 10 W
Power Bifaciality*	80 %

* 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.

	Nominal Max. Power (Pmax)	Opt. Operating Voltage (Vmp)	Opt. Operating Current (Imp)	Open Circuit Voltage (Voc)	Short Circuit Current (Isc)
CS6.1-72TB-585	442 W	39.8 V	11.11 A	48.9 V	11.57 A
CS6.1-72TB-590	446 W	40.0 V	11.16 A	49.1 V	11.63 A
CS6.1-72TB-595	450 W	40.2 V	11.20 A	49.3 V	11.68 A
CS6.1-72TB-600	454 W	40.3 V	11.24 A	49.5 V	11.71 A
CS6.1-72TB-605	458 W	40.5 V	11.29 A	49.7 V	11.77 A
CS6.1-72TB-610	461 W	40.7 V	11.33 A	50.0 V	11.82 A

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
Cell Arrangement	144 [2 x (12 x 6)]
Dimensions	2382 × 1134 × 30 mm (93.8 × 44.6 × 1.18 in)
Weight	33.6 kg (74.1 lbs)
Front Glass	2.0 mm heat strengthened glass with anti-reflective coating
Back Glass	2.0 mm heat strengthened glass
Frame	Anodized aluminium alloy
J-Box	IP68, 3 bypass diodes
Cable	4.0 mm ² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	350 mm (13.8 in) (+) / 250 mm (9.8 in) (-) or customized length*
Connector	T6 or MC4-EVO2 or MC4-EVO2A
Per Pallet	36 pieces
Per Container (40' HQ)	720 pieces

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.29 % / °C
Temperature Coefficient (Voc)	-0.25 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	41 ± 3°C

PARTNER SECTION

