NEW

CanadianSolar

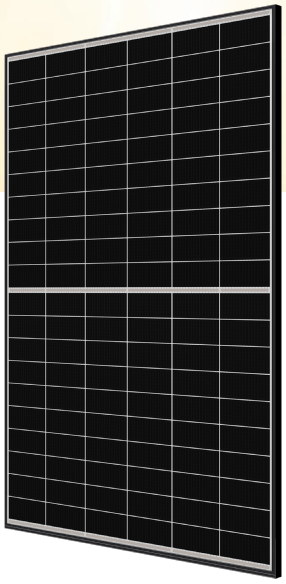
TOPBiHiKu6

N-type Bifacial TOPCon Technology

485 W ~ 520 W

CS6.1-60TB-485|490|495|500|505|510|515|520 (IEC1000 V)

CS6.1-60TB-485|490|495|500|505|510|515|520 (IEC1500 V)



MORE POWER

520 W — Module power up to 520 W
Module efficiency up to 23.0 %

EXTRA POWER — 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%/°C,
increases energy yield in hot climate

Lower LCOE & system cost

MORE RELIABLE

Minimizes micro-crack impacts

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

25 Years — **Industry Leading Product Warranty on Materials and Workmanship***

30 Years — **Linear Power Performance Warranty***

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

*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 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
IEC 62941: 2019 / Photovoltaic module manufacturing quality system

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730 / CE / MCS / UKCA / CGC
UL 61730 / IEC 61701 / IEC 62716 / IEC 60068-2-68
UNI 9177 Reaction to Fire: Class 1 / Take-e-way

* 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 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 over 100 GW of premium-quality solar modules across the world.

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

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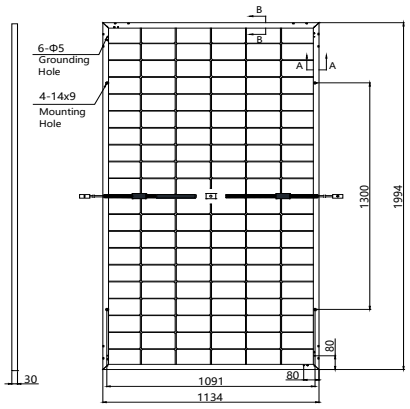
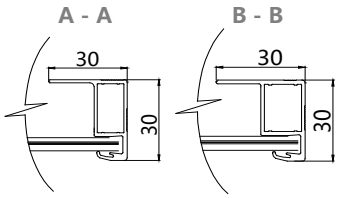
ENGINEERING DRAWING (mm)

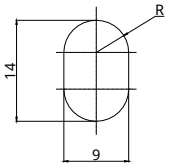
Rear View



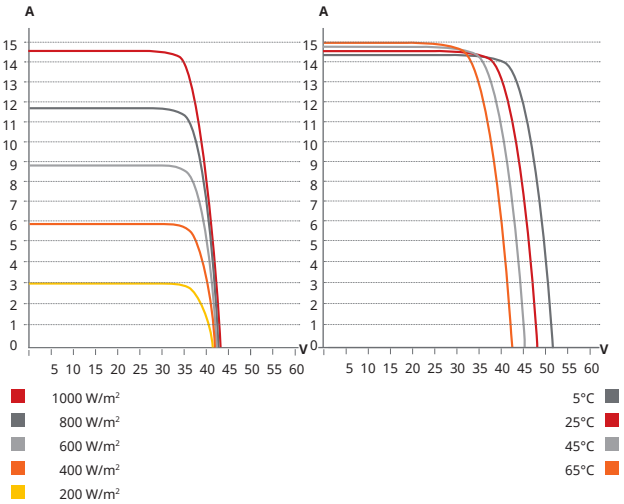
Frame Cross Section



Mounting Hole



CS6.1-60TB-500 / I-V CURVES



ELECTRICAL DATA (STC & NMOT & BNPI) | CS6.1-60TB-xxx (xxx=485-510)

Testing Conditions	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI	STC	NMOT	BNPI
Nominal Max. Power - Pmax (Wp)	485	367	537	490	371	543	495	374	548	500	378	554	505	382	560	510	386	565
Opt. Operating Voltage - Vmp (V)	36.0	34.0	#	36.2	34.2	#	36.4	34.4	#	36.6	34.6	#	36.8	34.8	#	37.0	35.0	#
Opt. Operating Current -Imp (A)	13.49	10.78	#	13.55	10.83	#	13.61	10.88	#	13.67	10.93	#	13.73	10.98	#	13.79	11.03	#
Open Circuit Voltage - Voc (V)	42.6	40.3	42.9	42.8	40.5	43.1	43.0	40.7	43.3	43.2	40.9	43.5	43.4	41.1	43.7	43.6	41.3	43.9
Short Circuit Current - Isc (A)	14.30	11.53	15.84	14.37	11.59	15.92	14.44	11.64	16.00	14.51	11.70	16.08	14.58	11.76	16.15	14.65	11.81	16.23
Module Efficiency (%)		21.4			21.7			21.9			22.1			22.3			22.6	

* STC: Irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C. NMOT: Irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s. Measurement uncertainty: ±3 % (Pmax).

**BNPI: Irradiance of front 1000W/m², rear 135W/m².

Electrical characteristics with different power bin (reference to 5% & 10% backside power gain)

Backside Power Gain	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Total Equivalent Power - Pmax (Wp)	509	534	515	539	520	545	525	550	530	556	536	561
Opt. Operating Voltage - Vmp (V)	36.0	36.0	36.2	36.2	36.4	36.4	36.6	36.6	36.8	36.8	37.0	37.0
Opt. Operating Current -Imp (A)	14.16	14.84	14.23	14.91	14.29	14.97	14.35	15.04	14.42	15.10	14.48	15.17
Open Circuit Voltage - Voc (V)	42.6	42.6	42.8	42.8	43.0	43.0	43.2	43.2	43.4	43.4	43.6	43.6
Short Circuit Current - Isc (A)	15.02	15.73	15.09	15.81	15.16	15.88	15.24	15.96	15.31	16.04	15.38	16.12
Module Efficiency (%)	22.5	23.6	22.8	23.8	23.0	24.1	23.2	24.3	23.4	24.6	23.7	24.8

***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.

MECHANICAL DATA

Specification	Data
Cell Type	TOPCon cells
Cell Arrangement	120 [2 x (10 x 6)]
Dimensions	1994 × 1134 × 30 mm (78.5 × 44.6 × 1.18 in)
Weight	28.4 kg (62.6 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 mm² (IEC), 12 AWG (UL)
Cable Length (Including Connector)	350 mm (13.8 in) (+) / 250 mm (9.8 in) (-) or customized length*
Connector	Tlian: T6 Stäubli: PV-KST4/xy-UR, PV-KBT4/xy-UR or PV-KST4-EVO2/XY, PV KBT4-EVO2/XY or PV-KST4-EVO2A/XY, PV-KBT4-EVO2A/XY
Per Pallet	35 pieces
Per Container (40' HQ)	770 pieces

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

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

ELECTRICAL DATA

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 %

* Power Bifaciality = $Pmax_{rear}$ / $Pmax_{front}$, both $Pmax_{rear}$ and $Pmax_{front}$ are tested under STC. Bifaciality coefficient (±5%): φVoc=99%, φIsc=80%, φPmax=80%.

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. 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.

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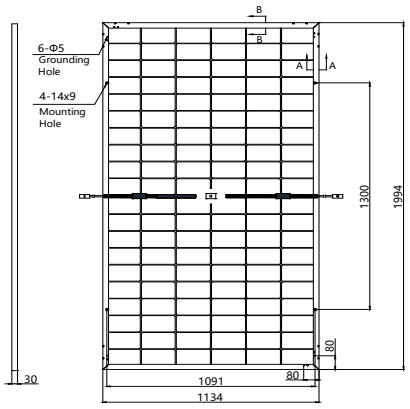
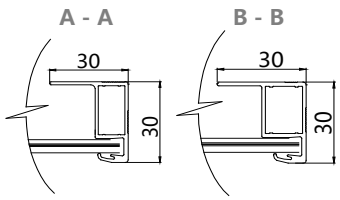
ENGINEERING DRAWING (mm)

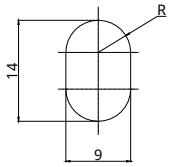
Rear View



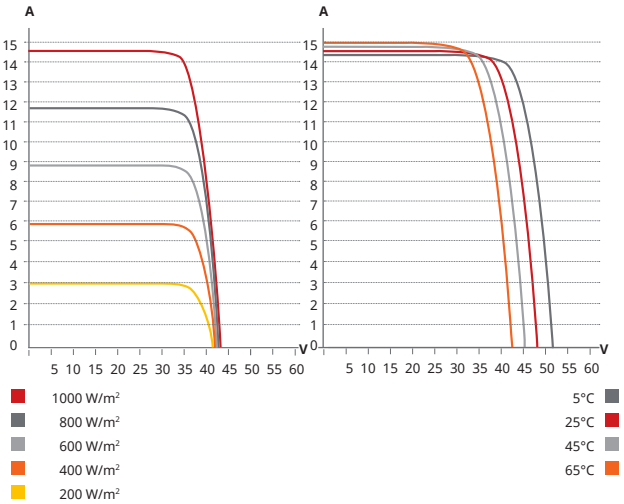
Frame Cross Section



Mounting Hole



CS6.1-60TB-500 / I-V CURVES



ELECTRICAL DATA (STC & NMOT & BNPI) | CS6.1-60TB-xxx (xxx=515-520)

Testing Conditions	STC	NMOT	BNPI	STC	NMOT	BNPI
Nominal Max. Power - Pmax (Wp)	515	389	571	520	393	576
Opt. Operating Voltage - Vmp (V)	37.2	35.2	#	37.4	35.4	#
Opt. Operating Current -Imp (A)	13.85	11.07	#	13.91	11.12	#
Open Circuit Voltage - Voc (V)	43.8	41.5	44.1	44.0	41.7	44.3
Short Circuit Current - Isc (A)	14.72	11.87	16.31	14.79	11.93	16.39
Module Efficiency (%)		22.8			23.0	

* STC: Irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C. NMOT: Irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s. Measurement uncertainty: ±3 % (Pmax).

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Electrical characteristics with different power bin (reference to 5% & 10% backside power gain)

Backside Power Gain	5%	10%	5%	10%
Total Equivalent Power - Pmax (Wp)	541	567	546	572
Opt. Operating Voltage - Vmp (V)	37.2	37.2	37.4	37.4
Opt. Operating Current -Imp (A)	14.54	15.24	14.61	15.30
Open Circuit Voltage - Voc (V)	43.8	43.8	44.0	44.0
Short Circuit Current - Isc (A)	15.46	16.19	15.53	16.27
Module Efficiency (%)	23.9	25.1	24.1	25.3

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