

# Se CanadianSolar

## TOPHiKu6 (All-Black)

N-type TOPCon Technology

435 W ~ 465 W

### CS6.1-54TM-435 | 440 | 445 | 450 | 455 | 460 | 465H

#### **MORE POWER**



Module power up to 465 W Module efficiency up to 22.8 %

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 8100 Pa, wind load up to 6000 Pa\*

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**Industry Leading Product Warranty on Materials** and Workmanship<sup>\*</sup>

Assembled in the US USA



Linear Power Performance Warranty\*

#### 1<sup>st</sup> 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 IEC62941: 2019 / Photovoltaic module manufacturing quality system

#### **PRODUCT CERTIFICATES\***

IEC 61215 / IEC 61730 / CE / CGC CEC listed (US California) / FSEC (US Florida) UL 61730 / IEC 61701 / IÉC 62716 / IEC 60068-2-68 UNI 9177 Reaction to Fire: Class 1

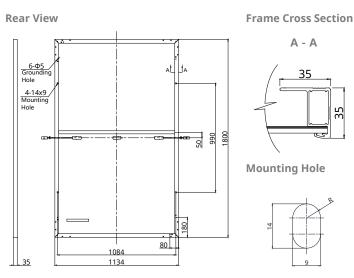


\* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

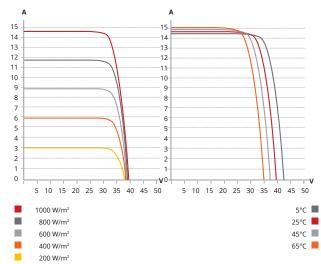
CSI Solar Co., Ltd. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 23 years, it has successfully delivered over 150 GW of premium-quality solar modules across the world.

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

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



#### CS6.1-54TM-455H / I-V CURVES



#### **ELECTRICAL DATA | STC\***

CS6.1-54TM	435H	440H	445H	450H	455H	460H	465H
Nominal Max. Power (Pmax)							
Opt. Operating Voltage (Vmp)	32.4 V	32.6 V	32.8 V	33.0 V	33.2 V	33.4 V	33.6 V
Opt. Operating Current (Imp)	13.45 A	13.52 A	13.59 A	A13.66 A	A13.72 A	A13.78 A	13.85 A
Open Circuit Voltage (Voc)	38.3 V	38.5 V	38.7 V	38.9 V	39.1 V	39.3 V	39.5 V
Short Circuit Current (Isc)	14.33 A	14.41 A	14.48 A	A14.55 A	A14.61 A	A14.69 A	A14.77 A
Module Efficiency	21.3%	21.6%	21.8%	22.0%	22.3%	22.5%	22.8%
Operating Temperature	-40°C ~	+85°C					
Max. System Voltage	1000V	(IEC/UL)					
Module Fire Performance	TYPE 2	(UL 617	30 1000	0V) or Cl	LASS C (	IEC 617	30)
Max. Series Fuse Rating	25 A						
Protection Class	Class II	[					
Power Tolerance	0~+10	) W					
* Under Standard Test Conditions (STC) of irradiance of 1000 W/m2 spectrum AM 1.5 and cell temperature of							

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

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

CS6.1-54TM	435H	440H	445H	450H	455H	460H	465H
Nominal Max. Power (Pmax)	328 W	332 W	335 W	339 W	343 W	347 W	351 W
Opt. Operating Voltage (Vmp)	30.5 V	30.7 V	30.9 V	31.1 V	31.3 V	31.5 V	31.7 V
Opt. Operating Current (Imp)	10.74 A	A 10.80 A	A10.85 A	A10.91 A	10.96 A	11.02 A	A11.07 A
Open Circuit Voltage (Voc)	36.2 V	36.4 V	36.5 V	36.7 V	36.9 V	37.1 V	37.3 V
Short Circuit Current (Isc)	11.56 A	A11.63 A	A11.68 A	A11.74 A	11.79 A	11.85 A	11.92 A
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\* 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**

Data
TOPCon cells
108 [2 X (9 X 6) ]
1800 × 1134 × 35 mm
(70.9 × 44.6 × 1.38 in)
23 kg (50.7 lbs)
3.2 mm tempered glass with anti-ref- lective coating
Anodized aluminium alloy
IP68, 3 bypass diodes
4 mm <sup>2</sup> (IEC), 12 AWG (UL)
T6 or MC4 or MC4-EVO2 or MC4- EVO2A
1500 mm (61.0 in) (+) / 1100 mm (43.3 in) (-)
30 pieces
) 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	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. 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.