TCL SOLAR

C2 Black Solar Panel

Product: HSM-BE54-HD

485–495 W | Up to 24.3 % efficiency

Ideal for residential applications

Back-contact gapless technology

Framed glass-glass with black tint



Trusted Performance

More energy from your system
Industry leading back-contact manufacturing
Lower operating temperature

Trusted Reliability

Shading resistant
Built reduced risk of micro-cracks
Reinforced circuit design

Trusted Design

Strong technology and IP
Premium Aesthetics
Busbar free front side

Comprehensive warranty coverage

Product and power coverage 25-30 Years
Year 1 minimum warranted output 99.0 %
Maximum annual degradation 0.35 %

25 PRODUCT | 30 POWER
WARRANTY

S&P Global

BloombergNEF TIER 1 PV Modules

SOLAR STEWARDSHIP INITIATIVE

Comprehensive Products and System Certificates

IEC 61215 / IEC 61730 ISO 9001:2015 ISO 45001:2018 ISO 14001:2015

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Learn more about TCL Solar panels
www.tclsolar.com

HSM-BE54-HD **485-495 W | C2 Black**

495 W Maximum power

24.3 % Maximum efficiency

0~+3 % Power tolerance

Electrical Data – STC[1]

[1]STC: Irradiance 1000 W/m², Cell Temperature 25 °C, AM1.5, Measuring Tolerance: ±3 %

Nominal Power	Pmax (W)	485	490	495
Power Binning	(%)	+3/0	+3/0	+3/0
Panel Efficiency	(%)	23.8	24.0	24.3
Rated Voltage	Vmp (V)	33.64	33.75	33.86
Rated Current	Imp (A)	14.42	14.52	14.62
Open-Circuit Voltage	Voc (V)	40.45	40.56	40.66
Short-Circuit Current	Isc (A)	15.18	15.28	15.38

Temperature Coefficient

Nominal Module Operating Temperature*	42±2 °C
Testing Temperature	-40 °C to +85 °C
Temperature Coefficient of Pmax	-0.26 %/°C
Temperature Coefficient of Voc	-0.22 %/°C
Temperature Coefficient of Isc	+0.05 %/°C

Operating Parameters

Operating Temperature	-40 °C to +70 °C (IEC TS 63126)
Maximum System Voltage	1500 V DC
Maximum Series Fuse Rating	30 A
Safety Protection	Class II (IEC 61140)
Fire Rating	Class C (IEC 61730-2 / UL 790)

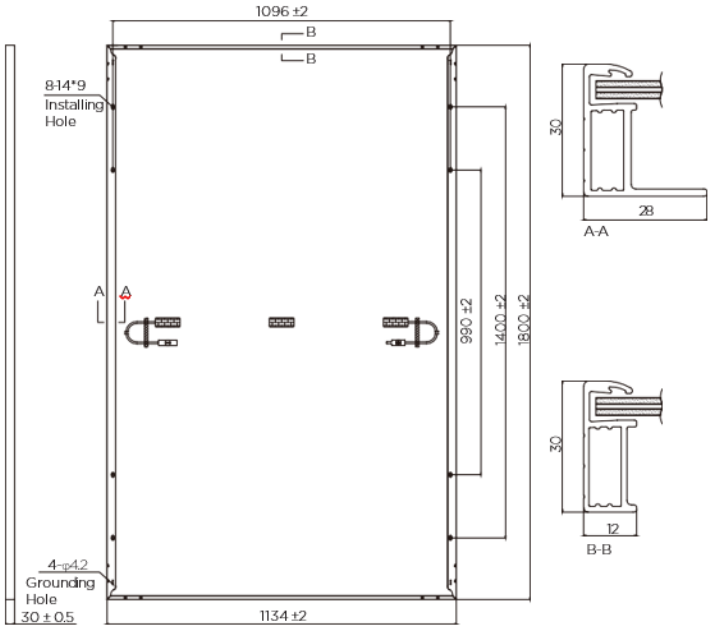
Mechanical Data

* Please refer to installation manual for details

No. of Cells	108 pcs
Dimensions	1800×1134×30 mm
Weight	26.0 kg ±3 %
Front Glass	2.0 mm, Heat Strengthened Glass, AR coated Glass
Back Glass	2.0 mm, Heat Strengthened Glass
Frame	Black Anodized Aluminum Alloy
J-Box / Diodes	IP68 / three diodes
Cables	4.0 mm / ±1200 mm
Connectors	Stäubli EVO2A
Maximum Static Load	Front: 5400 Pa / Back: 2400 Pa*
Impact Resistance	25 mm diameter hail at 23 m/s

Engineering Drawing

[Unit: mm]



Packaging Configuration

Number of modules per pallet	36 pcs
Number of pallets per 40ft HQ container	26 pcs
Number of modules per container	936 pcs

Please read the safety and installation instructions.
Visit www.tclsolar.com/resources
Paper version can be requested through
techsupport.EN@sunpowerglobal.com

Specifications included in this datasheet are subject to change without notice.
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