

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

More energy from your system

Innovative back-contact gapless technology minimizes resistive losses

Increased power density

Lower operating temperature

Long term reliability

Reduced risk of micro-cracks

Reinforced circuit design

Elegant design

Busbar-free front side

Gapless cell design

Comprehensive warranty coverage

Product and power coverage 25-30 Years

Year 1 minimum warranted output 99.0 %

Maximum annual degradation 0.35 %



S&P Global



SOLAR
STEWARDSHIP
INITIATIVE



Electrical Data - Front STC Characteristics¹¹STC: Irradiance 1000 W/m², Cell Temperature 25°C, AM1.5, Measuring Tolerance: ±3%

Maximum Power	P _{max} (W)	485	490	495
Open Circuit Voltage	V _{oc} (V)	40.45	40.56	40.66
Short Circuit Current	I _{sc} (A)	15.18	15.28	15.38
Maximum Power Voltage	V _{mp} (V)	33.64	33.75	33.86
Maximum Power Current	I _{mp} (A)	14.42	14.52	14.62
Module Efficiency	(%)	23.8	24.0	24.3

Temperature Coefficient

Nominal Module Operation Temp.	42±2 °C
Testing Temperature	-40 °C to +85 °C
Maximum Series Fuse	30 A
Power Temp. Coef.	-0.26 %/°C
Voltage Temp. Coef.	-0.20 %/°C
Current Temp. Coef.	0.05 %/°C

Mechanical Data

* Please refer to installation manual for details

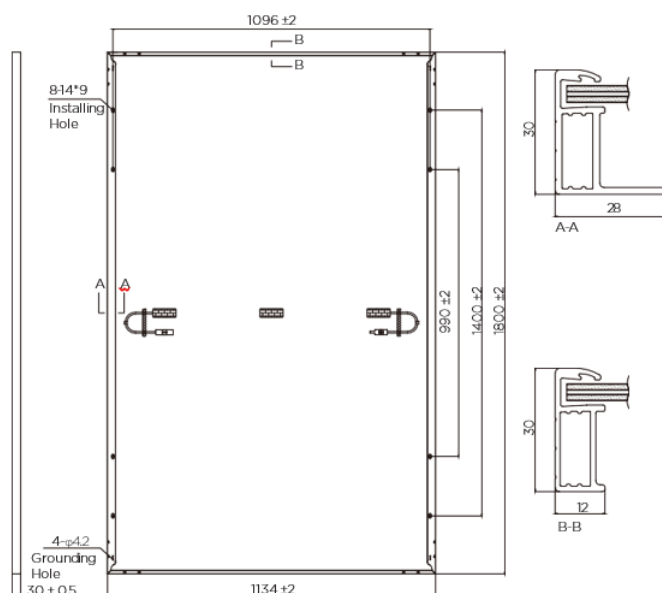
No. of Cells	108 pcs
Dimensions	1800×1134×30 mm
Weight	26 kg ±3 %
Front Glass	2.0 mm, Heat Strengthened Glass, AR coated Glass
Back Glass	2.0 mm, Heat Strengthened Glass
Frame	Black Anodized Aluminium Alloy
J-Box / Diodes	IP68 / three diodes
Cables / Connectors	4.0 mm / ±1200 mm / EVO2
Maximum Static Load	Front: 5400 Pa / Back: 2400 Pa*

Packaging Configuration

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

Operation Data

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



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



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

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