SunPower Origin

Residential solar panel

Product: SPR-BE54-HD

485–505 W | Up to **24.7%** efficiency



Ideal for residential applications

Elegant & powerful full-black with edge-to-edge maximal active area

Unique back-contact shingled cell technology

Certified to withstand harshest real-life conditions

The Original

- Leading back contact technology
- Built on 40+ years of SunPower world patented innovation in back-contact and shingled technology
- Manufactured by a leading global solar provider

The Safest

- Built to outlast - industry's lowest degradation rate
- Runs cooler, lasts longer - Low temperature coefficient 0.26 %/°C
- Designed to withstand micro-crack, soiling, heat, wind and hail

HOTSPOT PROTECTED

The Strongest

- Edge-to-edge active area - maximized output from same roof space
- Optimized for low light conditions and partial shading
- Proven high-quality, durable, and reliable performance on million of homes for decades

40 YEAR WARRANTY
Power | Product | Service

Backed by best-in-class 40-year warranty coverage

Product, power, service coverage[1]	40 Years
Year 1 minimum warranted output	99.0 %
Year 40 minimum warranted output	88.0%
Maximum annual degradation	0.25 %

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Learn more about SunPower panels
www.sunpowerglobal.com

SunPower Origin solar panel | SPR-BE54-HD | Power: 485–505 W | Efficiency: up to 24.7%

Electrical Data, Front STC Characteristics[2]					
	SPR-BE54-HD485	SPR-BE54-HD490	SPR-BE54-HD495	SPR-BE54-HD500	SPR-BE54-HD505
Nominal Power (Pmax)[3]	485 W	490 W	495 W	500 W	505 W
Power Binning	+3/0 %	+3/0 %	+3/0 %	+3/0 %	+3/0 %
Panel Efficiency	23.8 %	24.0 %	24.3 %	24.5 %	24.7 %
Rated Voltage (Vmpp)	33.64 V	33.75 V	33.86 V	33.97 V	34.08 V
Rated Current (Impp)	14.42 A	14.52 A	14.62 A	14.72 A	14.82 A
Open-Circuit Voltage (Voc)[3]	40.45 V	40.56 V	40.66 V	40.77 V	40.88 V
Short-Circuit Current (Isc)[3]	15.18 A	15.28 A	15.38 A	15.48 A	15.58 A

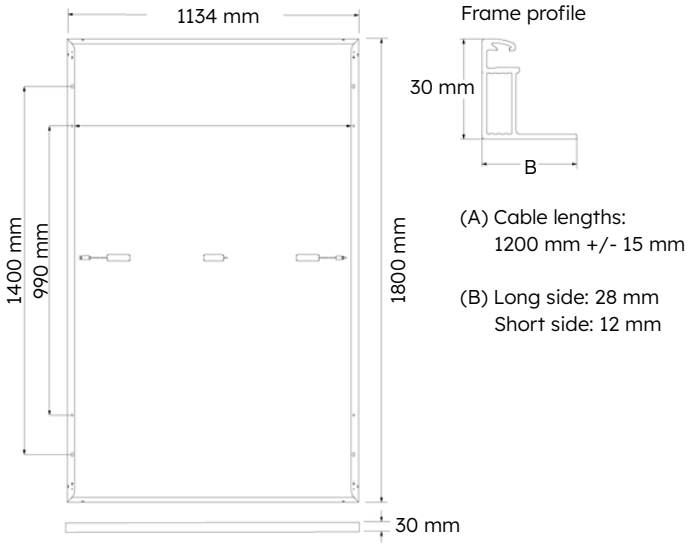
Electrical Data	
Maximum System Voltage	1500 V DC
Nominal Module Operating Temp.	42 °C ±2 °C
Operation Temperature	–40 °C to +70 °C (IEC TS 63126)
Testing Temperature	–40 °C to +85 °C
Maximum Series Fuse	30 A
Power Temp. Coefficient	–0.26 %/°C
Voltage Temp. Coefficient	–0.22 %/°C
Current Temp. Coefficient	+0.05 %/°C

Packaging Configuration	
Number of modules per pallet	36
Number of pallets per 40ft HQ container/truck	26/25
Number of modules per container/truck	936/900

Tests and Certifications	
Standard Tests	IEC 61215, IEC 61730
Fire Rating	Class A (IEC 61730-2 / UL 790)
Protection Class	Class II (IEC 61140)
Quality Certs	ISO 9001:2015, ISO 14001:2015
EHS Compliance	ISO 45001:2018, ISO 50001:2018, Recycling Scheme
Ammonia Test	IEC 62716
Dust and Sand	IEC 60068-2-68
Salt Mist	IEC 61701 (TM 8)

Mechanical Data	
Solar Cells	N-Type Back Contact
Glass	2+2 mm semi-tempered glass Anti-reflective coating on front glass Black tint on back glass
Junction Box	IP-68, 3 bypass diodes
Connector	Stäubli MC4-EVO2A
Weight	26.0 kg
Max. Load[4] Front & Back	Wind: 2400 Pa, 245 kg/m² Front & Back Snow: 5400 Pa, 550 kg/m² Front
Impact Resistance	40 mm diameter hail at 27.5 m/s
Frame	Black anodized aluminum alloy

Engineering Drawing



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

1 SunPower Origin solar panels are backed by a 40-year warranty. Subject to terms and conditions. Not available in all countries. 40-year warranty requires online registration, otherwise 30-year warranty applies.
2 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25 °C). NPEL calibration Standard: SOMS current, LACCS II and Voltage.
3 Measurements tolerance ±3 %.
4 Test load as per IEC 61215-2 is equal to design load with safety factor = 1.5. See "Safety and Installation Instructions" for details.

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