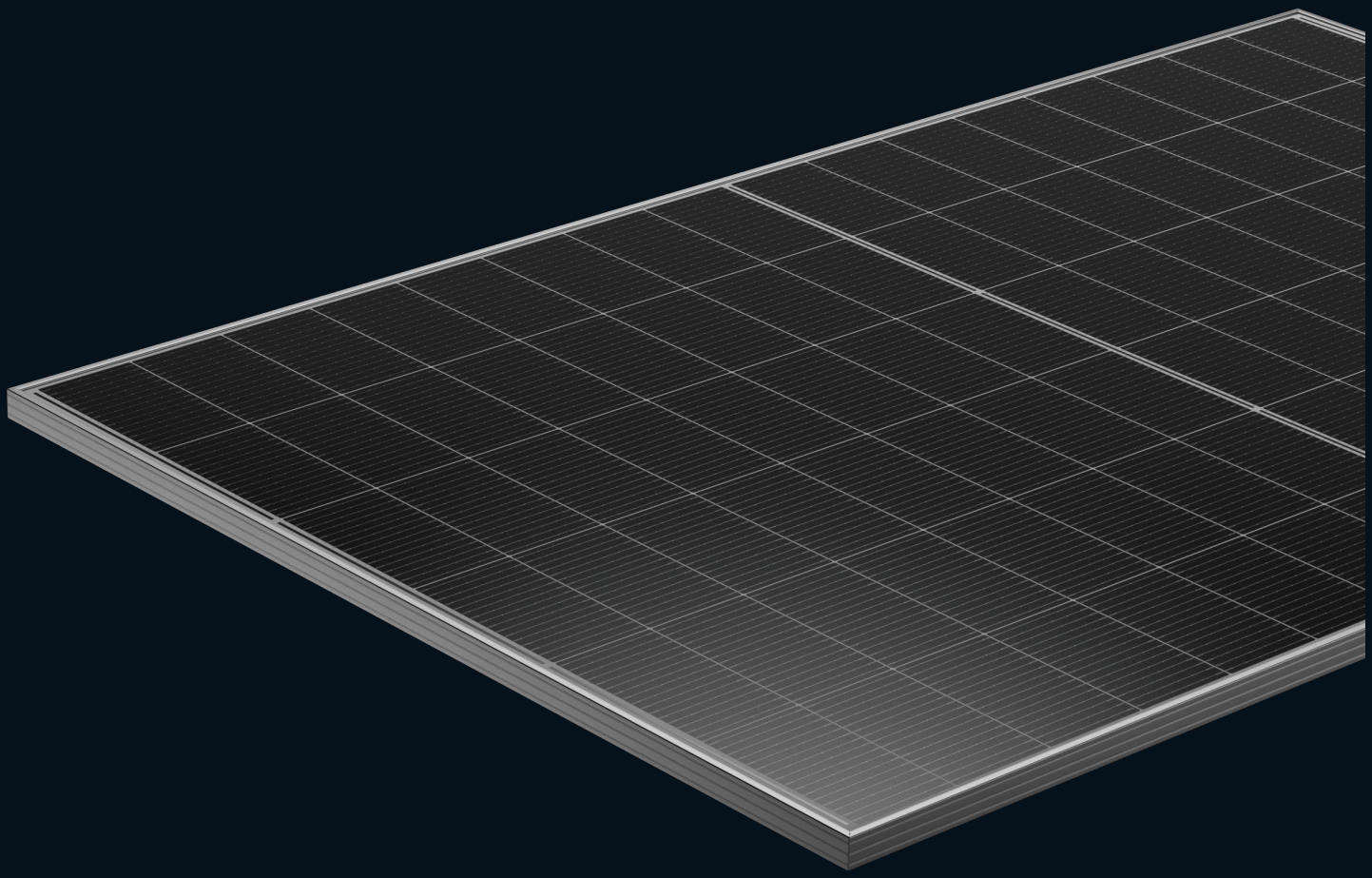
Blue Sphere 6R
Power from both sides.

445-465 W / N-TYPE TOPCon / DOUBLE-GLASS



445-465 W	80 ±5%	25 kg
RATED POWER	BIFACIALITY	MODULE WEIGHT

Capture sunlight on the front and reflected light on the rear. N-Type TOPCon half cells and double-glass construction combine in a compact 1762 × 1134 × 30 mm module.

SE6R-48HBD / 1500 V MAXIMUM SYSTEM VOLTAGE

The full power range.

SE6R-48HBD | Five power classes, from 445 W to 465 W.

STANDARD TEST CONDITIONS / STC

Power class (W)	445	450	455	460	465
Maximum power (W)	445	450	455	460	465
Open-circuit voltage (V)	35.63	35.88	36.13	36.38	36.63
Short-circuit current (A)	15.90	15.97	16.02	16.09	16.16
Voltage at max. power (V)	29.58	29.78	29.98	30.18	30.38
Current at max. power (A)	15.04	15.11	15.18	15.24	15.30
Module efficiency (%)	22.27	22.52	22.52	22.63	22.75

NOMINAL MODULE OPERATING TEMPERATURE / NMOT

Power class (W)	445	450	455	460	465
Maximum power (W)	339	343	347	351	355
Open-circuit voltage (V)	33.82	34.08	34.34	34.60	34.86
Short-circuit current (A)	12.79	12.85	12.88	12.93	12.99
Voltage at max. power (V)	27.86	28.05	28.24	28.43	28.62
Current at max. power (A)	12.17	12.23	12.29	12.35	12.41

AT 10% BIFACIAL POWER OUTPUT

Power class (W)	445	450	455	460	465
Output power (W)	490	495	501	506	511
Open-circuit voltage (V)	35.63	35.88	36.13	36.38	36.63
Short-circuit current (A)	17.45	17.53	17.59	17.66	17.72
Voltage at max. power (V)	29.58	29.78	29.98	30.18	30.38
Current at max. power (A)	16.55	16.62	16.69	16.77	16.83

STC: 1,000 W/m², cell temperature 25°C, AM 1.5. Pmax tolerance: ±3%.
NMOT: 800 W/m², AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

Engineered for the elements.

Double-glass construction, an aluminium-alloy frame and an IP68 junction box.

MECHANICAL SPECIFICATIONS

Dimensions / weight	1762 × 1134 × 30 mm / 25 kg
Cell size / quantity	182 × 210 mm / 48 × 2 half cells
Front / rear glass	2.0 mm anti-reflection / 2.0 mm heat-strengthened
Frame / junction box	Aluminium alloy / IP68
Cable	4 mm², 300 mm; custom lengths; UV resistant
Connector / bifaciality	MC4 compatible / 80 ±5%
Packing	36 pcs/box; 936 pcs/40'HQ

OPERATING & TEMPERATURE RATINGS

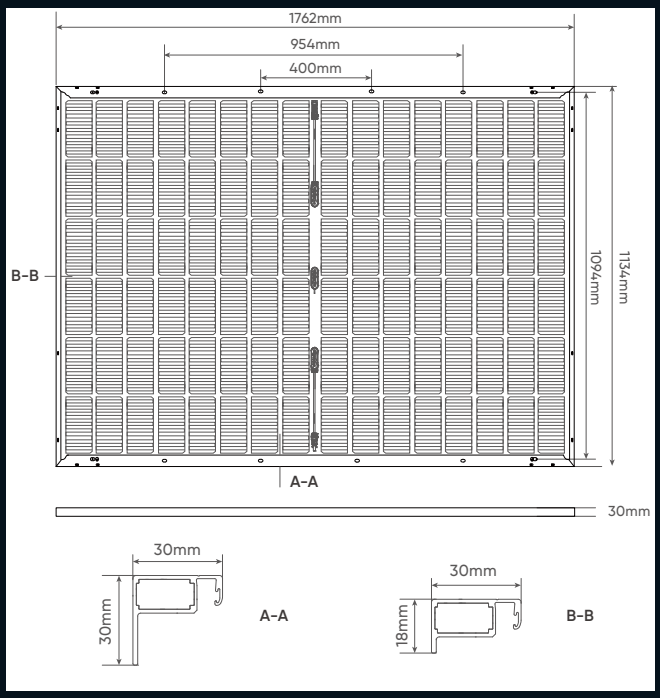
Maximum system voltage / fuse	1500 V / 25 A
Operating temperature	-40°C to +85°C
Wind load / snow load	2,400 Pa / 5,400 Pa
Output tolerance	0 to +5 W
NMOT	41 ±3°C
Temperature coefficient: Voc	-0.25%/°C
Temperature coefficient: Isc	+0.046%/°C
Temperature coefficient: Pmax	-0.30%/°C

More usable sunlight

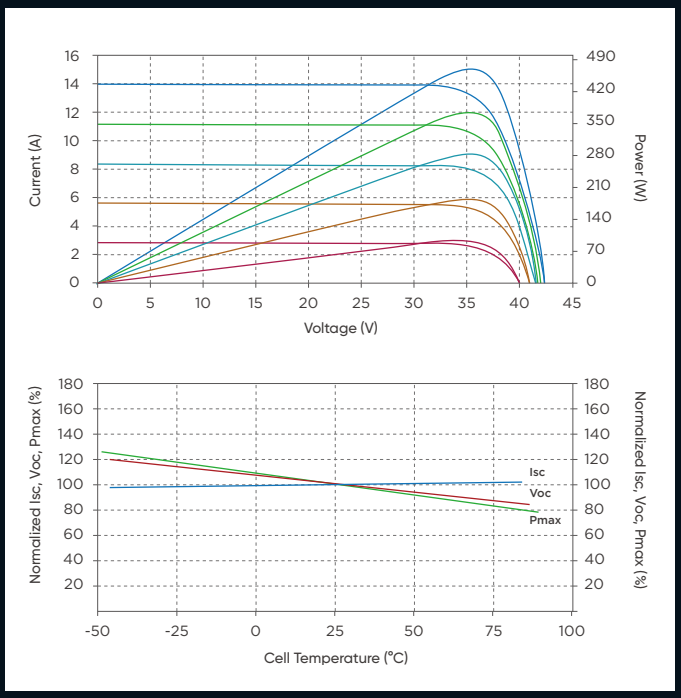
Bifacial generation offers an additional 5-25% output, depending on reflected light and installation conditions. PID protection and resistance to salt spray and ammonia support demanding environments.

Built for the long term.

MODULE GEOMETRY / mm



450 W PERFORMANCE CURVES



25 years

MATERIALS WARRANTY

30 years

POWER WARRANTY

Power warranty: 99% at year 1 and 87.4% at year 30. Warranty coverage is subject to the manufacturer’s terms.

Standards & quality systems

IEC 61215 / 61730 · IEC 62804 · IEC 61701 · IEC 62716 · IEC 60068-2-68
ISO 9001:2015 · ISO 14001:2015 · ISO 45001:2018
ISO 50001:2011 · IEC TS 62941-2016

Speak with engineering

hello@bluesphereenergysolutions.com | +44 333 577 2219
www.bluesphereenergysolutions.com
3rd Floor, 207 Regent Street, London, W1B 3HH

Specifications may change. Confirm product configuration and certification before purchase.