

3SUN B60

Powered by CORE-H Technology



640-680 W up to 24% efficiency and 95% bifaciality.

Best in class performance. Everywhere.



The sustainable choice.

Committed to sustainability for a low carbon footprint and a traceable and transparent supply chain with a lead and fluorine free product. Reduced use of silicon and low water and energy footprint thanks to a highly automated and low temperature manufacturing process.



Made in Europe.

Cells and Modules designed and manufactured exclusively in Italy.



Unmatchable customer value.

Engineered for best LCOE and reduced BOP costs.



Superior energy efficiency.

Market-leading bifaciality factor and temperature coefficients.



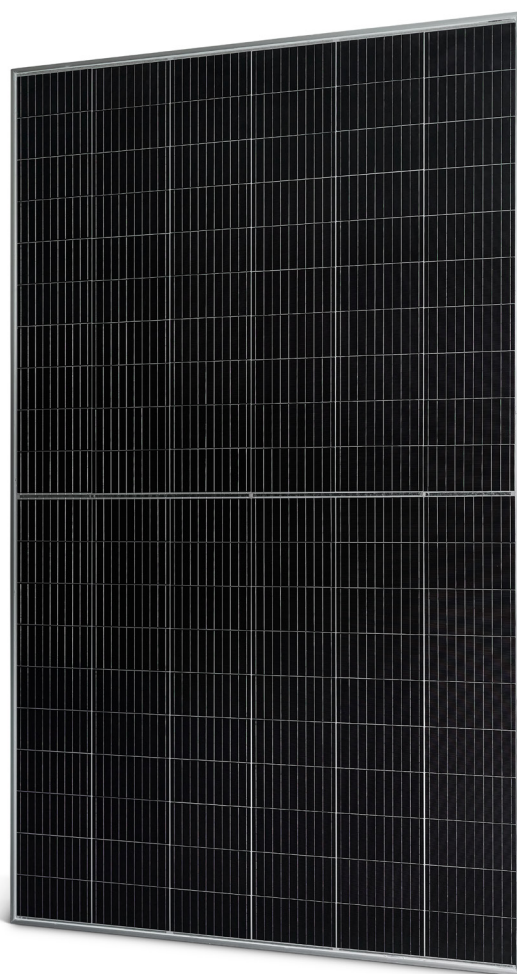
Trusted performance.

Glass-glass with strong mechanical performances, low degradation, PID & LeTID free.



Long-term reliability.

Strong mechanical performance, low degradation, PID & LeTID free.

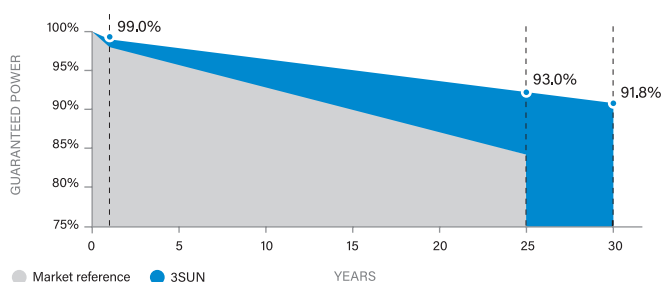


WARRANTY

- Product Warranty **15 years***
- Performance Warranty **30 years***
(1% first year, then 0.25% per year)

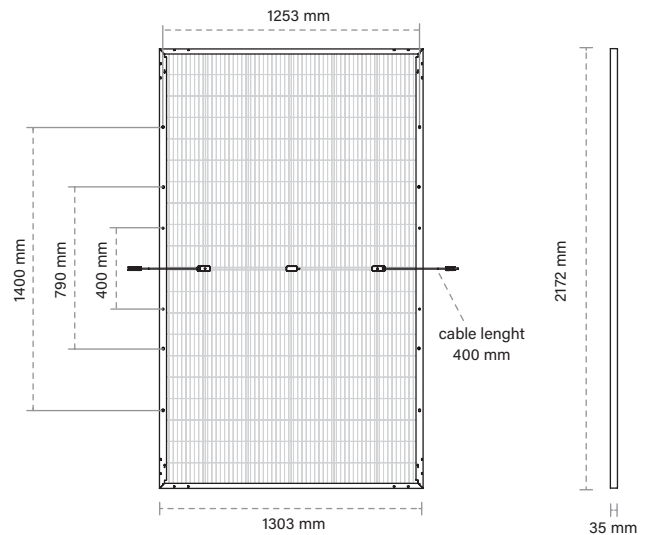
*Upon product registration

LINEAR PERFORMANCE WARRANTY



MECHANICAL CHARACTERISTICS

Cell Type	Mono-crystalline, n-type Si HJT, G12 (210 mm x 210 mm)
Number of cells	120 ½ cells (6 x 10) x 2
Dimensions	2172 x 1303 x 35 mm
Weight	36 kg
Frame	Anodized aluminium
Front Cover	2.0 mm textured glass, AR coated, low iron, semi-tempered
Back Cover	2.0 mm textured glass, semi-tempered
Junction Box	IP68, 3 bypass diodes
Output Cable	4 mm ² diameter, (+): 400 mm, (-): 400 mm or customized length
Type of Connector	MC4 alternative
Front side Maximum static test loading	Up to 5400 Pa
Rear side Maximum static test loading	Up to 2400 Pa
Module Fire Performance (Pending)	IEC 61730 - A Class UNI 9177 - Class 1



MAXIMUM RATINGS

Operating Temperature	°C	-40~+85
Warehousing Storage Temperature	°C	-20~+50
Maximum System Voltage (IEC/UL)	V _{DC}	1500
Maximum Series Fuse	A	35

BIFACIAL PERFORMANCES

Bifaciality Factor	95 % ± 5%									
Power @STC	W	640	645	650	655	660	665	670	675	680
Power @BSTC	W	722	728	733	739	745	750	756	762	767

Bifacial Characteristics measured under:

STC = AM 1.5, 1000 W/m², Cells Temperature 25°C

BSTC = Bifacial Standard Test Condition according to IEC 60904-1-2:2019

ELECTRICAL CHARACTERISTICS

	UNIT	3SHBGH-AA-640		3SHBGH-AA-645		3SHBGH-AA-650		3SHBGH-AA-655		3SHBGH-AA-660		3SHBGH-AA-665		3SHBGH-AA-670		3SHBGH-AA-675		3SHBGH-AA-680	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
P_{max} - Power at Maximum Power Point	W	640	484	645	488	650	491	655	495	660	499	665	503	670	507	675	510	680	514
V_{mp} - Voltage at Maximum Power Point	V	35.81	34.07	35.90	34.16	35.99	34.24	36.08	34.33	36.17	34.41	36.25	34.49	36.33	34.57	36.41	34.64	36.49	34.72
I_{mp} - Current at Maximum Power Point	A	17.87	14.20	17.96	14.27	18.06	14.35	18.15	14.42	18.25	14.50	18.35	14.58	18.44	14.65	18.54	14.73	18.64	14.81
V_{oc} - Open Circuit Voltage	V	43.32	41.20	43.44	41.31	43.55	41.42	43.66	41.52	43.77	41.63	43.88	41.73	43.98	41.83	44.09	41.94	44.20	42.04
I_{sc} - Short Circuit Current	A	19.00	15.33	19.10	15.41	19.20	15.49	19.30	15.57	19.40	15.65	19.49	15.72	19.59	15.80	19.68	15.88	19.78	15.96
Module efficiency	%	22.6		22.8		23.0		23.1		23.3		23.5		23.7		23.9		24.0	

Electrical Characteristics measured under:

Measurement Tolerance ± 5%

Power tolerance P_{max}: -0+5 W

PACKAGING

Packing Configuration	Bi-pack (26 pcs/top box + 37 pcs/bottom box)
Quantity per Pallet	63 pcs
Modules per Container (40'HQ)	504 pcs (16 boxes)

TEMPERATURE RATINGS

Nominal Module Operating Temperature	°C	44 ± 2
P_{max} Temperature Coefficient	%/°C	-0.24 ± 0.04
I_{sc} Temperature Coefficient	%/°C	0.044
V_{oc} Temperature Coefficient	%/°C	-0.20

CURRENT - VOLTAGE CURVES - 3SHBGH-AA-660

