

3SUN B60

Powered by **CORE-H** Technology

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

Best in class performance. Everywhere.



Utility
Scale



Commercial
& Industrial



Made in Europe.

Cells and Modules designed and manufactured exclusively in Italy.



Superior energy yield.

Market-leading bifaciality factor and temperature coefficients.



Unrivalled customer value.

Engineered for best return on investment and reduced BOP costs in a variety of applications.



Long-term reliability.

High quality glass-glass product with strong mechanical performances.



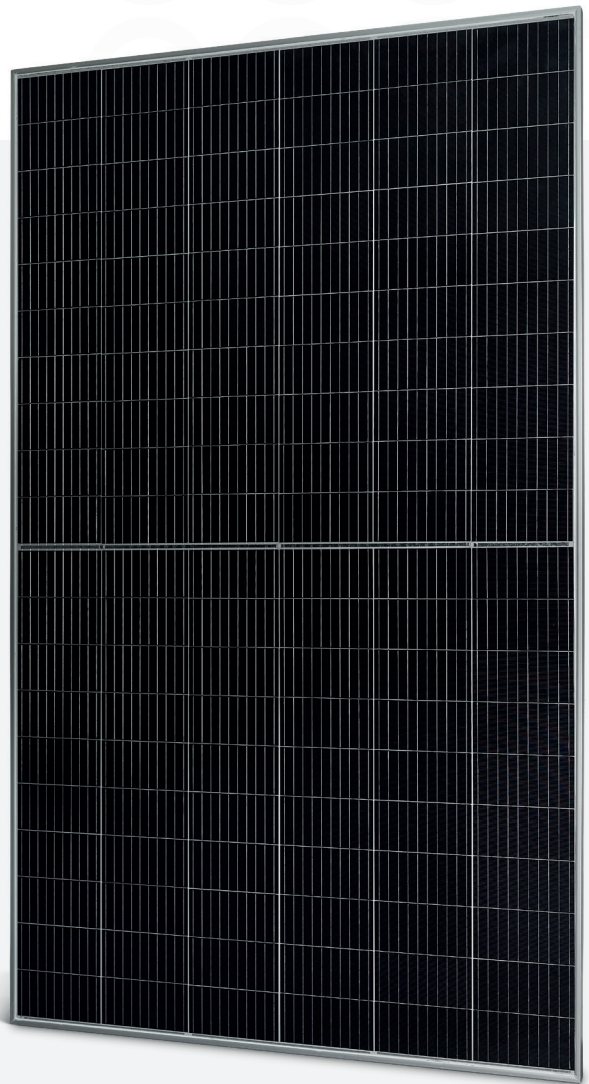
Trusted performance.

PID & LeTID free with low yearly performance degradation.



The sustainable choice.

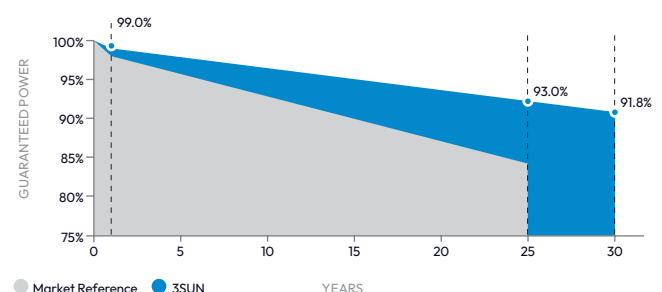
Committed to sustainability for a low carbon footprint and a traceable and transparent supply chain with a lead and fluorine free product. Reduced use of silicon and low water and energy footprint thanks to a highly automated and low temperature manufacturing process.

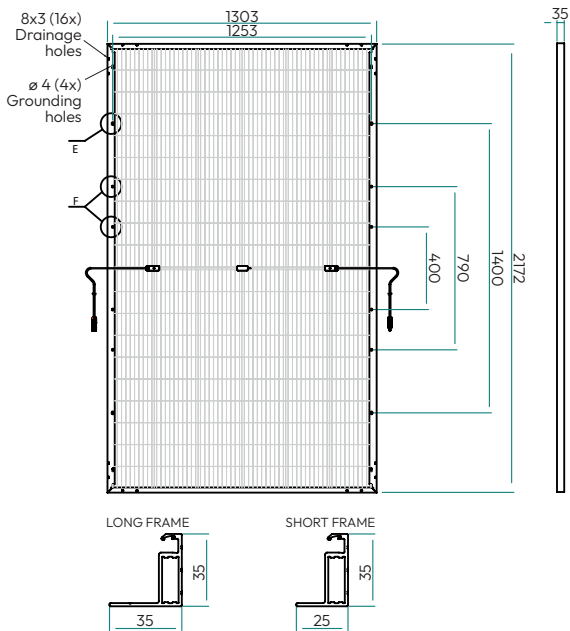


WARRANTY

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

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	Glass - 2.0 mm, AR coated, Low Iron, Semi-Tempered
Back Cover	Glass - 2.0 mm, Semi-Tempered
Junction Box	IP68, 1500VDC, 3 bypass diodes
Output Cable	4 mm ² , (+): 400mm, (-): 400mm (+): 1200mm, (-): 1200mm
Type of Connector	MC4 alternative
Maximum static test loading	Front: up to 5400 Pa Rear: up to 2400 Pa
Module Fire Performance	IEC 61730 - A Class UNI 9177 - Class 1

PACKAGING

Pallet dimensions (L x W x H)
 Bi-pack: 2205 x 1373 x 2501 mm
 Top: 2205 x 1373 x 1070 mm
 Bottom: 2205 x 1373 x 1431 mm

Pallet weight
 Bi-pack: 2273 kg
 Top: 944 kg
 Bottom: 1329 kg

Packing Configuration
 Bi-pack: 63 pcs
 Top: 26 pcs
 Bottom: 37 pcs

Modules per Container (40'HQ)
 504 pcs (8 Bi-packs)

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

MAXIMUM RATINGS

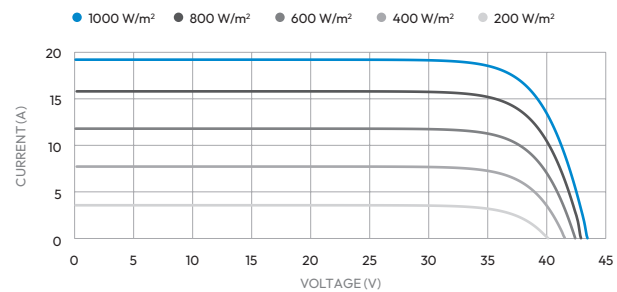
Operating Temperature	°C	-40~+85
Maximum System Voltage (IEC/UL)	V _{DC}	1500
Maximum Series Fuse	A	35

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

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

CURRENT - VOLTAGE CURVES - 3SHBGH-A#-640-680



ELECTRICAL CHARACTERISTICS

	UNIT	3SHBGH-A#-640		3SHBGH-A#-645		3SHBGH-A#-650		3SHBGH-A#-655		3SHBGH-A#-660		3SHBGH-A#-665		3SHBGH-A#-670		3SHBGH-A#-675		3SHBGH-A#-680	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
P_{max} - Power at Mpp	W	640	484	645	488	650	491	655	495	660	499	665	503	670	507	675	510	680	514
V_{mp} - Voltage at Mpp	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 Mpp	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 ± 3%
 Power tolerance Pmax: -0+5 W
 STC = AM 1.5, 1000 W/m², Cells Temperature 25°C



IEC 61215-1:2021; IEC 61215-2:2021; IEC 61730-2:2016; UL 61730:2017