

3SUN M40

Powered by **CORE-H** Technology

440-480 W up to **25% efficiency**.

Superior technology made for every roof.



Residential



Commercial
& Industrial



Made in Europe.

Cells and Modules designed and manufactured exclusively in Italy.



More energy in less space.

Engineered for rooftops for reduced BOS costs.



Extensive warranty package.

Built to last: 91.8% performance after 30 years.



Trusted performance.

High energy yield year after year even in hot environments and low light conditions.



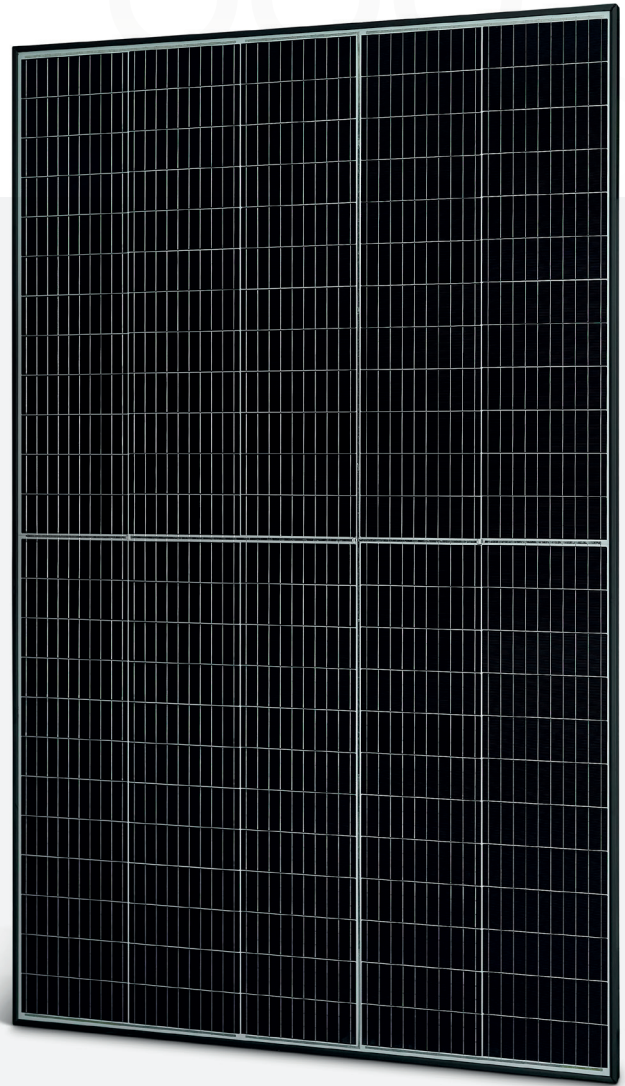
Long-term reliability.

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



The sustainable choice.

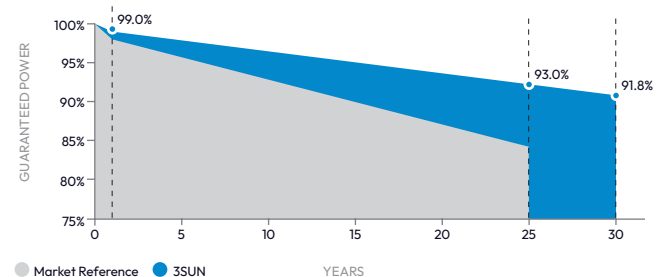
Committed to sustainability for a low carbon footprint and a traceable and transparent supply chain with a lead and fluorine free product. Reduced use of silicon and low water and energy footprint thanks to a highly automated and low temperature manufacturing process.



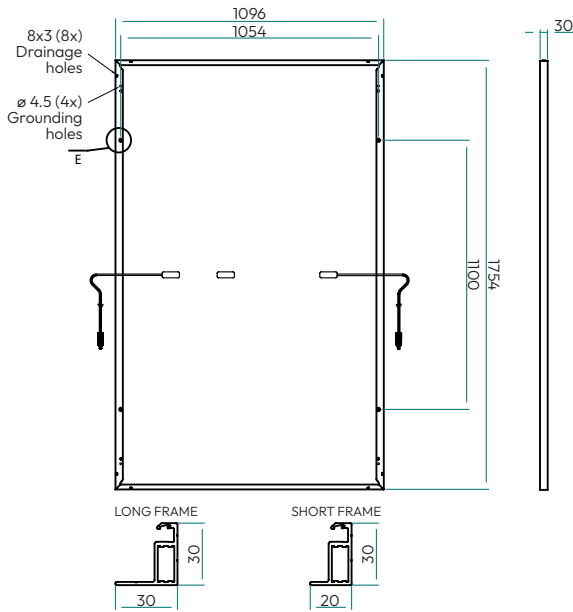
WARRANTY

- Dedicated Aftersales & Labour Warranty
- Product Warranty **25 years**
- Performance Warranty **30 years**
(1% first year, then 0.25% per year)

LINEAR PERFORMANCE WARRANTY



Cells and Modules manufactured by 3SUN S.r.l., Contrada Blocco Torrazze, Zona Industriale, 95121 Catania (Italy)



MECHANICAL CHARACTERISTICS

Cell Type	Mono-crystalline, n-type Si HJT - G12 (210mm x 210mm)
Number of cells	120 1/3 cells (5 x 12) x 2
Dimensions	1754 x 1096 x 30 mm
Weight	21 kg
Frame	Black anodized aluminium
Front Cover	Glass - 3.2 mm, AR coated, Low Iron, Tempered, Textured
Back Cover	White backsheet
Junction Box	IP68, 1000VDC, 3 bypass diodes
Output Cable	4 mm ² , (+): 1200mm, (-): 1200mm
Type of Connector	MC4 alternative
Maximum static test loading	Front: up to 5400 Pa Rear: up to 2400 Pa

PACKAGING

Pallet dimensions (L x W x H)
Bi-pack: 1787 x 1097 x 2446 mm
Box: 1787 x 1097 x 1223 mm

Pallet weight
Bi-pack: 1453 kg
Box: 727 kg

Packing Configuration
Bi-pack: 66 pcs
Box: 33 pcs

Modules per Container (40'HQ)
858 pcs (26 boxes)

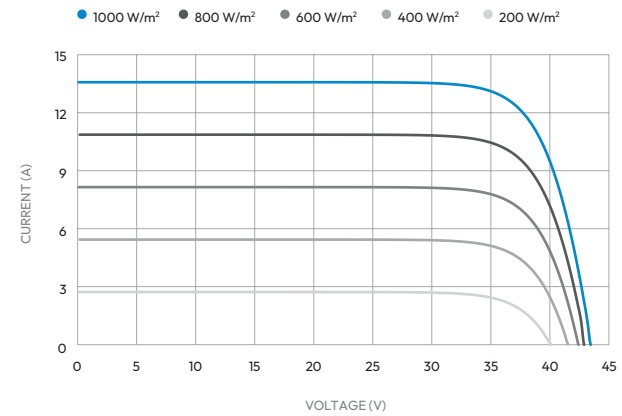
MAXIMUM RATINGS

Operating Temperature	°C	-40~+85
Maximum System Voltage (IEC/UL)	V _{DC}	1000
Maximum Series Fuse	A	20

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 - 3SHMAT-A#-440-480



ELECTRICAL CHARACTERISTICS

	UNIT	3SHMAT-A#-440		3SHMAT-A#-445		3SHMAT-A#-450		3SHMAT-A#-455		3SHMAT-A#-460		3SHMAT-A#-465		3SHMAT-A#-470		3SHMAT-A#-475		3SHMAT-A#-480	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
P_{max} - Power at Mpp	W	440	333	445	336	450	340	455	344	460	348	465	352	470	355	475	359	480	363
V_{mp} - Voltage at Mpp	V	35.52	33.79	35.65	33.91	35.78	34.04	35.91	34.16	36.03	34.27	36.15	34.39	36.27	34.51	36.39	34.63	36.51	34.74
I_{mp} - Current at Mpp	A	12.39	9.84	12.48	9.92	12.58	9.99	12.67	10.07	12.77	10.15	12.86	10.22	12.96	10.30	13.05	10.37	13.15	10.45
V_{oc} - Open Circuit Voltage	V	42.96	40.85	43.10	41.00	43.25	41.14	43.40	41.28	43.55	41.42	43.70	41.57	43.85	41.71	43.99	41.85	44.14	41.99
I_{sc} - Short Circuit Current	A	13.17	10.63	13.27	10.71	13.37	10.79	13.47	10.87	13.57	10.95	13.67	11.03	13.77	11.11	13.87	11.19	13.97	11.27
Module efficiency	%	22.9		23.2		23.4		23.7		23.9		24.2		24.5		24.7		25.0	

Electrical Characteristics measured under:

Measurement Tolerance ± 3%

Power tolerance P_{max}: -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