

3SUN M40 BOLD

Powered by CORE-H Technology



430-470 W up to 24.5% efficiency.

Enduring elegance for the most demanding customers.



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.



Exclusive warranty package.

The worry-free warranty solution.



For the harshest environments.

Sturdy design to weather extreme conditions: high snow (8100 Pa) and wind (6000 Pa).



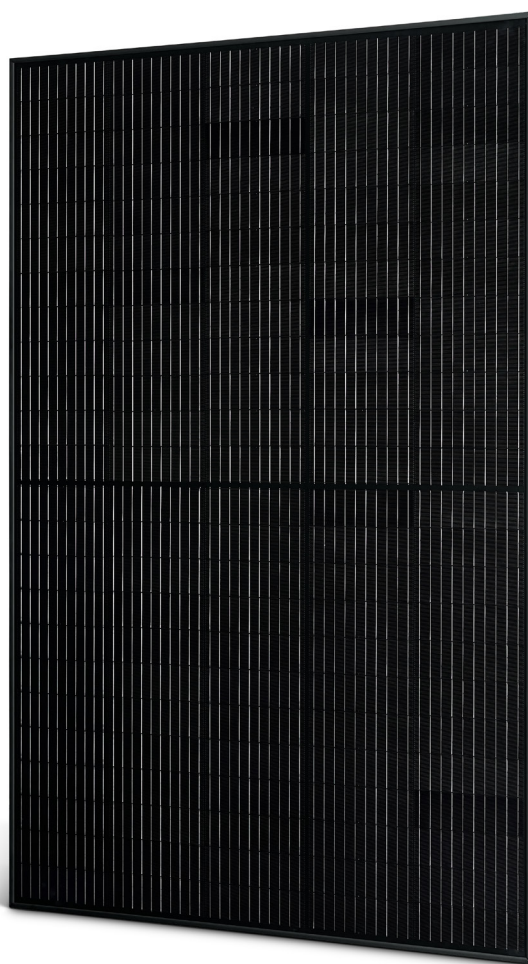
Trusted performance.

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



The stylish solution.

Impeccable aesthetics to blend in with your roof.

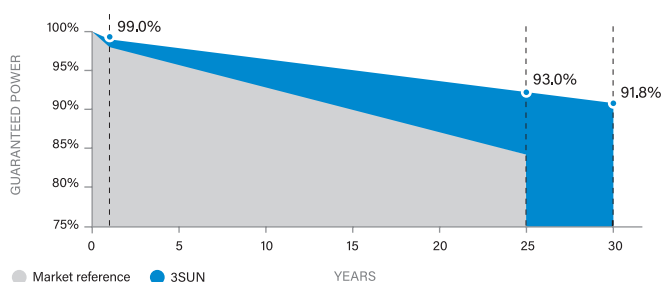


WARRANTY

- Remote inspection & Extended labour warranty
- Product Warranty **25 years***
- Performance Warranty **30 years***
(1% first year, then 0.25% per year)
- Guaranteed equivalent replacement: **5 years***

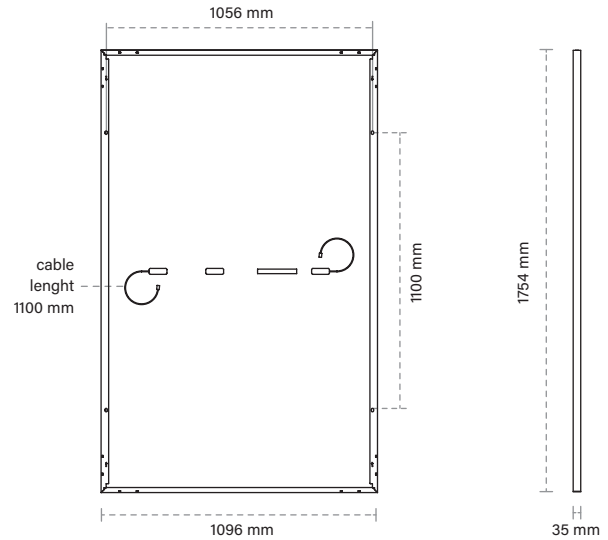
*Upon product registration

LINEAR PERFORMANCE WARRANTY



MECHANICAL CHARACTERISTICS

Cell Type	Mono-crystalline, n-type Si HJT, G12 (210 mm x 210 mm)
Number of cells	120 1/3 cells (5 x 12) x 2
Dimensions	1754 x 1096 x 35 mm
Weight	21.5 kg
Frame	Black anodized aluminium
Front Cover	3.2 mm textured glass, AR coated, low iron, tempered
Back Cover	Black backsheet
Junction Box	IP68, 3 bypass diodes
Output Cable	4 mm ² diameter, (+): 1100 mm, (-): 1100 mm or customized length
Type of Connector	MC4 or alternative
Front side Maximum static test loading	Up to 5400 Pa Extended 8100 Pa
Rear side Maximum static test loading	Up to 2400 Pa Extended 6000 Pa



MAXIMUM RATINGS

Operating Temperature	°C	-40~+85
Warehousing Storage Temperature	°C	-20~+50
Maximum System Voltage (IEC/UL)	V _{DC}	1000
Maximum Series Fuse	A	20 (25 optional)

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

ELECTRICAL CHARACTERISTICS

	UNIT	3SHMBT-BA-430		3SHMBT-BA-435		3SHMBT-BA-440		3SHMBT-BA-445		3SHMBT-BA-450		3SHMBT-BA-455		3SHMBT-BA-460		3SHMBT-BA-465		3SHMBT-BA-470	
		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	430	325	435	329	440	333	445	336	450	340	455	344	460	348	465	352	470	356
V_{mp} - Voltage at Maximum Power Point	V	35.45	33.72	35.58	33.84	35.71	33.97	35.84	34.09	35.97	34.22	36.09	34.34	36.22	34.46	36.35	34.59	36.48	34.71
I_{mp} - Current at Maximum Power Point	A	12.13	9.64	12.23	9.71	12.32	9.79	12.42	9.86	12.51	9.94	12.61	10.02	12.70	10.09	12.80	10.17	12.89	10.24
V_{oc} - Open Circuit Voltage	V	42.93	40.82	43.07	40.97	43.22	41.11	43.37	41.25	43.52	41.40	43.67	41.54	43.82	41.68	43.96	41.82	44.11	41.97
I_{sc} - Short Circuit Current	A	12.92	10.42	13.01	10.50	13.11	10.58	13.21	10.66	13.31	10.73	13.40	10.81	13.50	10.89	13.60	10.97	13.70	11.05
Module efficiency	%	22.4		22.6		22.9		23.2		23.4		23.7		23.9		24.2		24.5	

Electrical Characteristics measured under:

Measurement Tolerance ± 5%

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

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

PACKAGING

Packing Configuration	30 pcs/box
Quantity per Pallet	60 pcs
Modules per Container (40'HQ)	780 pcs (26 boxes)

CURRENT-VOLTAGE CURVES - 3SHMBT-BA-450

