



## ELNSM72M-HC Series

# MBB HC BIFACIAL MONOCRYSTALLINE PV MODULE 540-555W



### BiFacial Series

Sirius redefined the high-efficiency module series by integrating 182mm silicon wafers with multi-busbar and half-cut cell technologies. Sirius panel combined creative technology effectively and extremely improved the module efficiency and power output.

## KEY FEATURES



Less mismatch to get more power



Our preselected technology features a zero gap cell layout, resulting in module efficiency up to 21%



Less power loss by minimizing the shading impact



Competitive low light performance



Ideal choice for rooftop and commercial scale projects by reduced BOS and improve ROI.



- In stringent environment condition :
- Sand, acid, salt and hail stones,
  - 2400pa wind load and 5400pa snow load.
  - PID FREE

## QUALITY SYSTEM



ISO 9001:2015, ISO 14001:2015, ISO 45001: 2018, ISO 27001:2013, ISO 10002:2004

## PRODUCT CERTIFICATION



TS EN 61215, TS EN 61730  
IEC 61215, IEC 61730, IEC 62804 (PID FREE)  
UL 61730-1, UL 61730-2



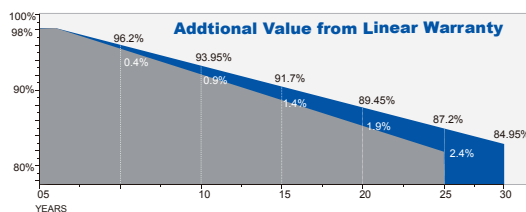
## WARRANTY



15 Year Guarantee On Product



25 Year Linear Power Output Warranty



\* For PERC Monocrystal bifacial MODULES: less than 2.0% in the first year, thereafter less than 0.45% per year, ending with no less than 87.2% in the 25<sup>th</sup> year after the Warranty Start Date. The actual output power is calculated as follows:  
Actual Power Output (Year=1) ≥ Nominal Power \* (1 - 2%) Actual Power Output (Year=N, 2≤N≤25) ≥ Nominal Power \* (1 - [2% + 0.45% \* (N-1)])

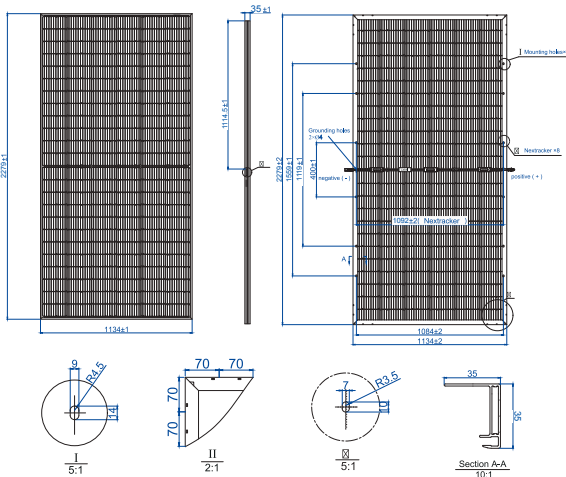




**SIRIUS** PHOTOVOLTAIC

powered by **ELIN**

## ELNSM72M-HC Series



### MECHANICAL SPECIFICATIONS

External Dimension	2279 x 1134 x 35 mm (89.72" x 44.65" x 1.38")
Weight	27 kg (59.5 lbs)
Solar Cells	PERC Mono crystalline(144pcs)
Front Glass	3.2mm AR coating semi-tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables*	4.0mm <sup>2</sup> , 250mm(+)/350mm(-) or Customized Length
Connector	MC4 compatible or staubli (should be specified at the time of order)

\* Output cable lengths should be specified at the time of order.

### PACKING CONFIGURATION

Container	53 ft Truck
Pieces per Pallet	31
Pallets per Container	20
Pieces per Container	620

\* 31+4 pieces per pallet is the special package which only suits for container transport.

Module Type	ELNSM-540-72M-HC	ELNSM-545-72M-HC	ELNSM-550-72M-HC	ELNSM-555-72M-HC
<b>STC</b>	<b>Front STC</b>	<b>Front STC</b>	<b>Front STC</b>	<b>Front STC</b>
Maximum Power -P <sub>mp</sub> (W)	540	545	550	555
Open Circuit Voltage -V <sub>oc</sub> (V)	49.50	49.75	49.90	50.02
Short Circuit Current -I <sub>sc</sub> (A)	13.81	13.93	14.00	14.07
Maximum Power Voltage -V <sub>mp</sub> (V)	41.55	41.80	41.96	42.11
Maximum Power Current -I <sub>mp</sub> (A)	13.00	13.04	13.11	13.18
Module Efficiency STC-η <sub>m</sub> (%)	20.9	21.0	21.2	21.5
Power Tolerance(W)	(0 + 4.99W)			
Pmax Temperature Coefficient	-0.34 %/ C			
Voc Temperature Coefficient	-0.26 %/ C			
Isc Temperature Coefficient	+0.05 %/ C			

\* Measurement Tolerance +/- 3%

STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5

NOCT: Irradiance 800W /m<sup>2</sup>, Ambient Temperature 20 °C, AM = 1.5, Wind Speed 1m /s

### ELECTRICAL CHARACTERISTICS WITH DIFFERENT POWER RANGES (REFERENCES TO %10 SOLAR ILLUMINANCE RATIO)

Type	ELNSM-540-72M-HC-BF	ELNSM-545-72M-HC-BF	ELNSM-550-72M-HC-BF
Maximum Power -P <sub>mp</sub> (W)	578	583	589
Open Circuit Voltage -V <sub>oc</sub> (V)	49.93	50.03	50.21
Short Circuit Current -I <sub>sc</sub> (A)	14.50	14.56	14.63
Maximum Power Voltage -V <sub>mp</sub> (V)	42.24	42.43	42.67
Maximum Power Current -I <sub>mp</sub> (A)	13.69	13.74	13.79

### APPLICATION CONDITIONS

Maximum System Voltage	1500VDC
Maximum Series Fuse Rating	25A
Operating Temperature	-40~+85 °C
Nominal Operating Cell Temperature	45±2 °C
Bifaciality	70%±10%
Mechanical Load	Front side 5400Pa/ Rear side 2400Pa

### I-V CURVE

