

# SIRIUS



## ELNSM72M-HC-HV Series



## MBB HC MONOCRYSTALLINE PV MODULE 440-455W



### Sirius 166M Series

Elin redefined the high-efficiency module series by integrating 166mm silicon wafers with multi-busbar and half-cut cell technologies. Elin panel combined creative technology effectively and extremely improved the module efficiency and power output.

## KEY FEATURES



Less mismatch to get more power



Less power loss by minimizing the shading impact



Competitive low light performance



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



In stringent environment condition :  
• sand, acid, and alkali, hail stones,  
• 2400pa wind load and 5400pa snow load.  
• PID

## 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)

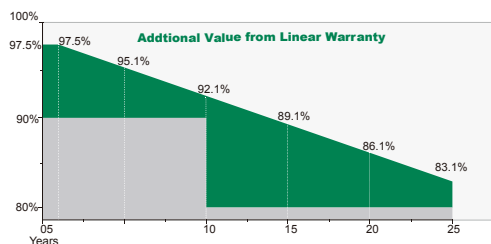
## WARRANTY



Guarantee On Product



Linear Power Output Warranty





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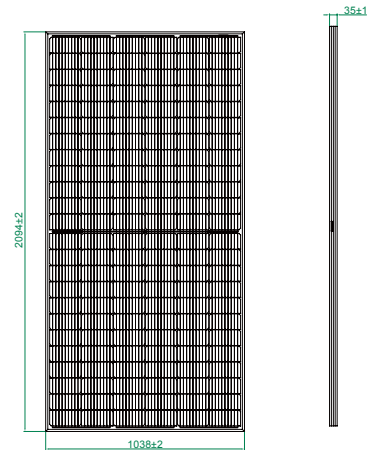
### ELECTRICAL CHARACTERISTICS

Module Type	440 W		445 W		450 W		455 W	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power at STC (Pmp)	440	328	445	332	450	336	455	340
Open Circuit Voltage (Voc)	49.7	45.4	49.9	45.6	50.10	45.80	50.30	46.00
Short Circuit Current (Isc)	11.27	9.10	11.34	9.17	11.41	9.24	11.48	9.31
Maximum Power Voltage (Vmp)	41.4	38.3	41.6	38.5	41.80	38.70	42.00	38.90
Maximum Power Current (Imp)	10.63	8.57	10.70	8.63	10.77	8.69	10.84	8.75
Module Efficiency at STC (ηm)	20.24		20.47		20.70		20.93	
Power Tolerance	(0,+4.99)							
Maximum System Voltage	1500 VDC							
Maximum Series Fuse Rating	20A							

\* Measurement Tolerance +/- 3%

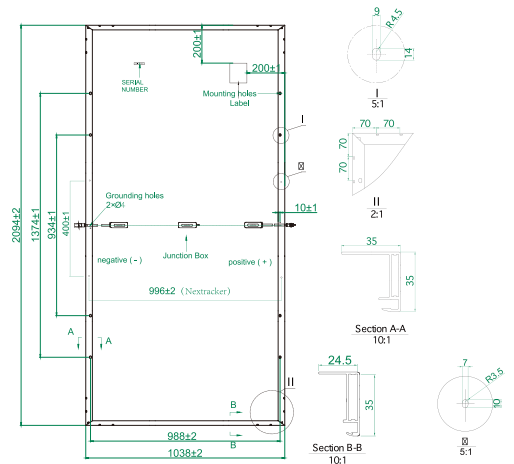
STC: Irradiance 1000 W/m<sup>2</sup> module temperature 25°C AM=1.5;

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



### TEMPERATURE CHARACTERISTICS

Pmax Temperature Coefficient	-0.36 %/°C
Voc Temperature Coefficient	-0.28 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40~+85°C
Nominal Operating Cell Temperature (NOCT)	45±2°C



### MECHANICAL SPECIFICATIONS

External Dimensions	2094 x 1038 x 35 mm
Weight	23.5 kg
Solar Cells	PERC Mono Crystalline 166 x 83 mm (144pcs)
Front Glass	3.2 mm AR coating tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP68, 3 diodes - MC4 Compatible
Output Cables*	4.0 mm <sup>2</sup> , 350 mm - 1200 mm
Mechanical Load	Front side 5400Pa/ Rear side 2400Pa

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

### PACKING CONFIGURATION

	2094 x 1038 x 35 mm	
	20'GP	40'HQ
Container	31	31
Pieces per Pallet	5	22
Pallets per Container	155	682

Made in Turkey.

### I-V CURVE

