

ELNSM60M-HC-HV Series

MBB HC BIFACIAL MONOCRYSTALLINE PV MODULE 445-455W



Bifacial Black Series
Elin 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.



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, salt and hail stones,
• 2400pa wind load and 5400pa snow load.
• PID FREE.



3 times EL test to ensure best quality.

QUALITY SYSTEM



ISO 9001:2015, ISO 14001:2015, ISO 45001: 2018, ISO 27001:2013, ISO 10002: 2018, ISO 26000:2021, ISO 37001:2016, ISO 50001:2018

PRODUCT CERTIFICATION



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

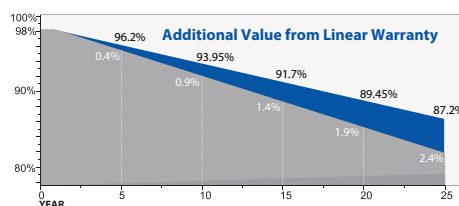
WARRANTY



Guarantee On Product



Linear Power Output Warranty



ELNSM60M-HC-HV Series

ELECTRICAL SPECIFICATIONS

Module Type	ELNSM60M-HC-HV-445			ELNSM60M-HC-HV-450			ELNSM60M-HC-HV-455		
	FRONT STC	FRONT NOCT	BACK STC	FRONT STC	FRONT NOCT	BACK STC	FRONT STC	FRONT NOCT	BACK STC
Maximum Power (Pmax)	445Wp	333Wp	312Wp	450Wp	337Wp	315Wp	455Wp	341Wp	319Wp
Open Circuit Voltage (Voc)	41.22V	38.41V	41.20V	41.32V	38.57V	41.30V	41.42V	38.67V	41.40V
Short Circuit Current (Isc)	13.66A	11.04A	9.63A	13.76A	11.12A	9.70A	13.86A	11.20A	9.77A
Maximum Power Voltage (Vmp)	34.18V	31.82V	34.22V	34.28V	31.98V	34.29V	34.38V	32.06V	34.42V
Maximum Power Current (Imp)	13.03A	10.48A	9.12A	13.13A	10.56A	9.19A	13.24A	10.64A	9.27A
Module Efficiency STC (%)	20.56%			20.79%			21.02%		
Power Tolerance (W)	(0, +4,99 W)								
Pmax Temperature Coefficient	-0.34 %/°C								
Voc Temperature Coefficient	-0.26 %/°C								
Isc Temperature Coefficient	+0.05 %/°C								

* Measurement Tolerance +/- 3%
 STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5
 NOCT: Irradiance 800W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

REAR SIDE POWER GAIN

Power Gain	10%	15%	20%	25%	30%
Maximum Power -P _{mp} (W)	495	518	540	563	585
Open Circuit Voltage -V _{oc} (V)	41.32	41.32	41.32	41.32	41.32
Short Circuit Current -I _{sc} (A)	15.14	15.82	16.51	17.20	17.89
Maximum Power Voltage -V _{mp} (V)	34.28	34.28	34.28	34.28	34.28
Maximum Power Current -I _{mp} (A)	14.44	15.10	15.76	16.41	17.07

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

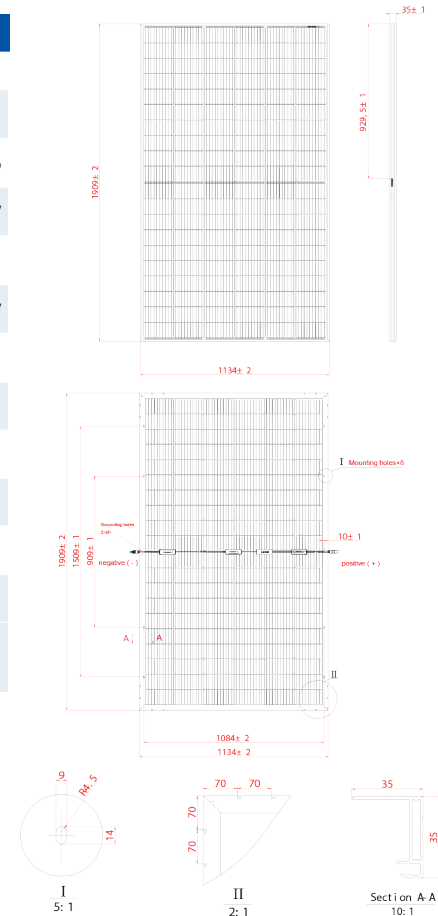
MECHANICAL SPECIFICATIONS

External Dimension	1909 x 1134 x 35 mm
Weight	22.3 kg
Solar Cells	PERC Mono Crystalline (120 pcs)
Front Glass	3.2 mm AR coating tempered glass
Frame	Anodized aluminium alloy
Junction Box	IP68,3 diodes
Output Cables*	4.0 mm ² , 350mm(+)/350mm(-) or Customized Length

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

PACKING CONFIGURATION

Container	20'GP	40'HQ
Pieces per Pallet	31	31
Pallets per Container	5	24
Pieces per Container	155	744



I-V CURVE

I-V Curve

