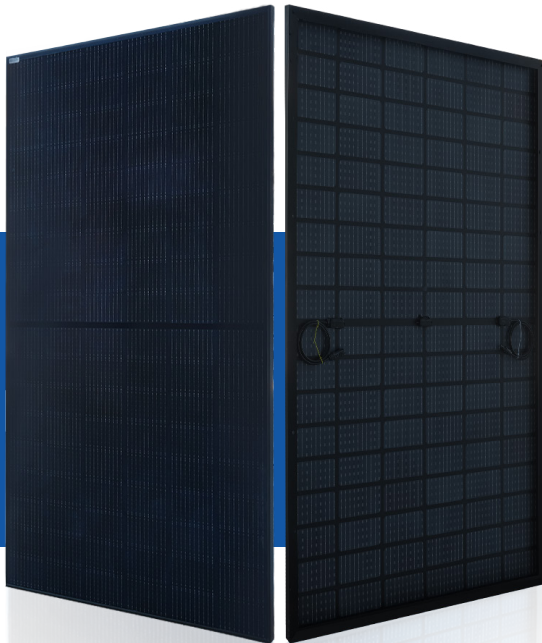




ELNSM60M-HC Series

MBB HC BIFACIAL MONOCRYSTALLINE PV MODULE 445-460W



Sirius 182M Module

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 21.25 %



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



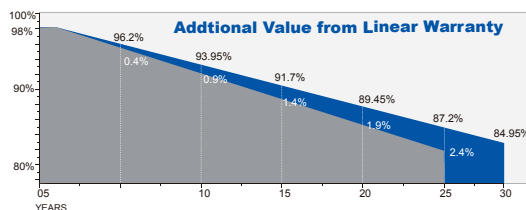
WARRANTY



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 25th 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))]

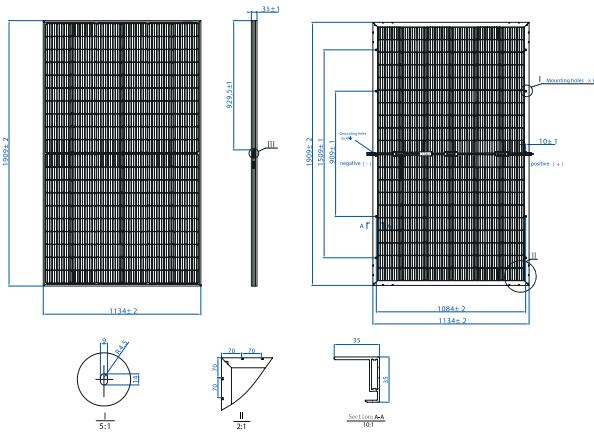




SIRIUS PHOTOVOLTAIC

powered by **ELIN**

ELNSM60M-HC Series



MECHANICAL SPECIFICATIONS

External Dimension	1909 x 1134 x 35 mm
Weight	22.3 kg
Solar Cells	PERC Mono crystalline(120 pcs)
Front Glass	3.2mm AR coating semi-tempered glass, low iron
Frame	Black anodized aluminium alloy
Junction Box	IP68, 3 diodes
Output Cables*	4.0 mm ² , 1400 mm(+)/1400 mm(-) or Customized Length
Connector	MC4 compatible or stabuli (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 Truck	25
Pieces per Truck	775

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

Module Type	ELNSM-445-60M-HC			ELNSM-450-60M-HC			ELNSM-455-60M-HC			ELNSM-460-60M-HC		
	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC	Front STC	Front NOCT	Back STC
Maximum Power -P _{mp} (W)	445	333	312	450	337	315	455	341	319	460	345	322
Open Circuit Voltage -V _{oc} (V)	41.22	38.41	41.20	41.32	38.57	41.30	41.42	38.67	41.40	41.52	38.77	41.50
Short Circuit Current -I _{sc} (A)	13.66	11.04	9.63	13.76	11.12	9.70	13.86	11.20	9.77	13.96	11.28	9.84
Maximum Power Voltage -V _{mp} (V)	34.18	31.82	34.22	34.28	31.98	34.29	34.38	32.06	34.42	34.48	32.18	34.49
Maximum Power Current -I _{mp} (A)	13.03	10.48	9.12	13.13	10.56	9.19	13.24	10.64	9.27	13.34	10.73	9.34
Module Efficiency STC-η _m (%)	20.56			20.79			21.02			21.25		
Power Tolerance(W)	(0, 4.99W)											
Pmax Temperature Coefficient	-0.34 %/°C											
Voc Temperature Coefficient	-0.26 %/°C											
Isc Temperature Coefficient	+0.05 %/°C											

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5
Power measurement tolerance: +/-3%

REAR SIDE POWER GAIN(ELNSM60M-450-HC-BF)

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

I-V CURVE

