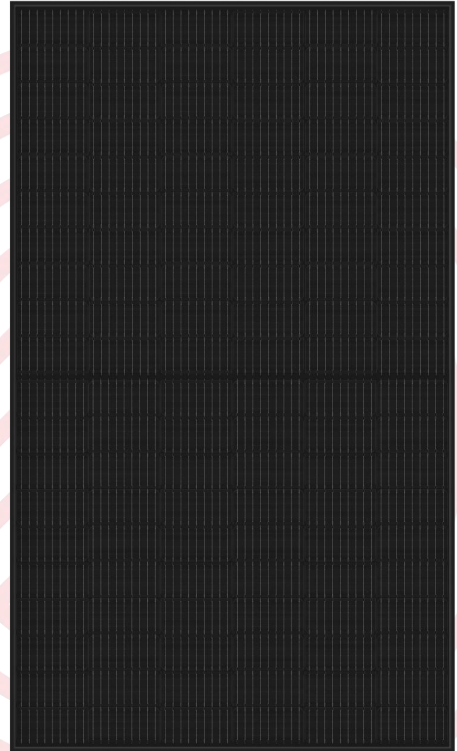


## PERC Half Cut Mono-Crystalline Black

*ESM 485/490/495/500/505S*

0~+3% POWER TOLERANCE

High efficiency PERC P - type solar module



### Module characteristics



#### Strong Mechanical Strength

Pass the wind load test of 2400Mpa and the snow load test of 5400Mpa



#### Low attenuation rate

Good reliability and lower LID/LETID attenuation rate.



#### PID resistance

The attenuation probability of PID phenomenon is minimized through solar cell production technology optimization and robust raw material quality control



#### Harsh environmental adaptation

Robust design for demanding climate conditions.



#### MBB and Half cell technique

More light utilization and current collection capabilities, effectively improving product power output and reliability



### Long and reliable quality assurance

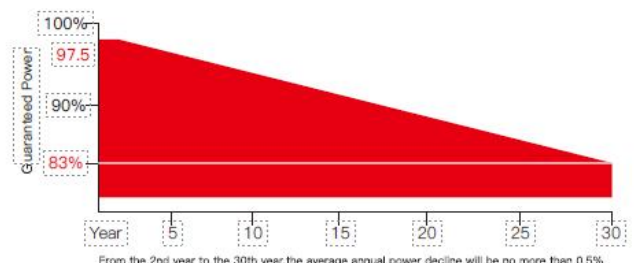
IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality management system

ISO14001:2015: Environmental management system

ISO45001:2018: Occupational health and safety management system

12 years material and workmanship warranty  
30 years power linear warranty

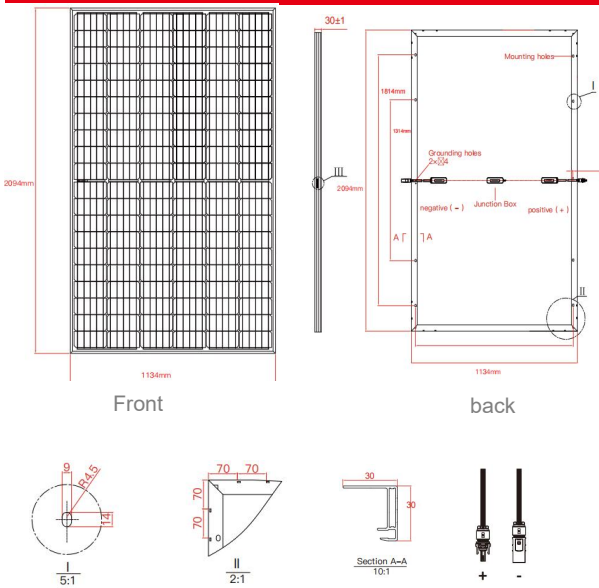


# Electrical Parameters

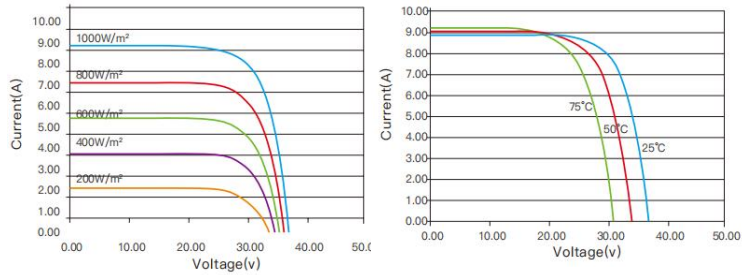
Model Type	ESM-485S		ESM-490S		ESM-495S		ESM-500S		ESM-505S	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	485	367	490	370	495	374	500	378	505	382
Open Circuit Voltage (Voc)	45.10	42.30	45.25	42.43	45.40	42.58	45.55	42.72	45.70	42.86
Short Circuit Current (Isc)	13.67	11.06	13.74	11.13	13.82	11.20	13.90	11.27	13.97	11.34
Maximum Power Voltage (Vmp)	37.93	35.67	38.08	35.76	38.23	35.84	38.38	35.93	38.53	36.02
Maximum Power Current (Imp)	12.79	10.28	12.87	10.36	12.95	10.44	13.03	10.52	13.11	10.60
Module Efficiency - $\eta_m$ (%)	20.6		20.90		21.10		21.30		21.50	
Operational Temperature	-40°C ~ +85°C									
Maximum System Voltage	1500VDC									
Maximum Series Fuse Rating	20A									
Power Tolerance	0 ~ +3%									
Temperature Coefficient of Pmax	-0.360%/°C									
Temperature Coefficient of Voc	-0.260%/°C									
Temperature Coefficient of Isc	+0.046%/°C									
Nominal Operating Cell Temperature	45 ± 2°C									
Safety Class	Class II									
Max Load (Front/back)	5400Mpa/2400Mpa									

STC: Irradiance 1000W/m<sup>2</sup> Cell temperature 25°C Atmospheric quality = 1.5  
 NOCT: Irradiance 800W/m<sup>2</sup> Ambient temperature 25°C Atmospheric quality = 1.5 Wind speed 1m/S

## Mechanical Diagrams



## Curve



## Packing Details:

31pcs/pallet

40HQ: 26 pallets/HQ, 792pcs/40HQ

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 EMAIL: emma.wu@einnova-solarline.com  
 Website: www.einnova-solarline.com

## Specification

Cell type	mono crystalline 182*91mm
Half-cell quantity	132pcs
Dimension	2094×1134×30mm
Weight	25.5kgs±3%
Glass	3.2mm tempered glass and AR coated
Frame	Black Anodized Aluminum Alloy
Junction Box	IP68
Cable	1100mm (can be customized)

The company reserves the right of final right of adjustment of this file.