

# Einnova Solarline

*invented for solar*



## Mono crystalline Solar Module

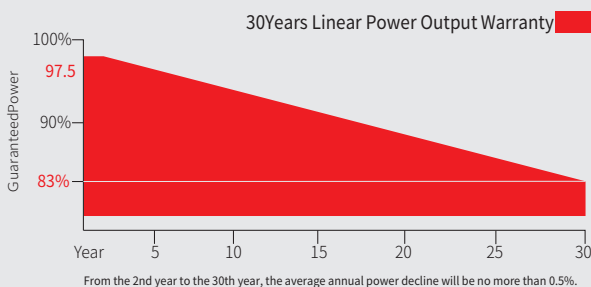
ESM 315/320/325/330/335 Super black

## FEATURES

- Positive power tolerance up to 5w
- Heavy snow load up to 5400 Pa and wind load up to 3800Pa
- IP68 junction box is available for long term weather endurance
- Salt mist, ammonia and blowing sand resistance, apply to seaside, farm and desert areas
- Selective materials and rigid process effectively control Potential Induced Degradation (PID)
- Total quality control and complete traceability of Material by Shop Floor Control (SFC)

## WARRANTY

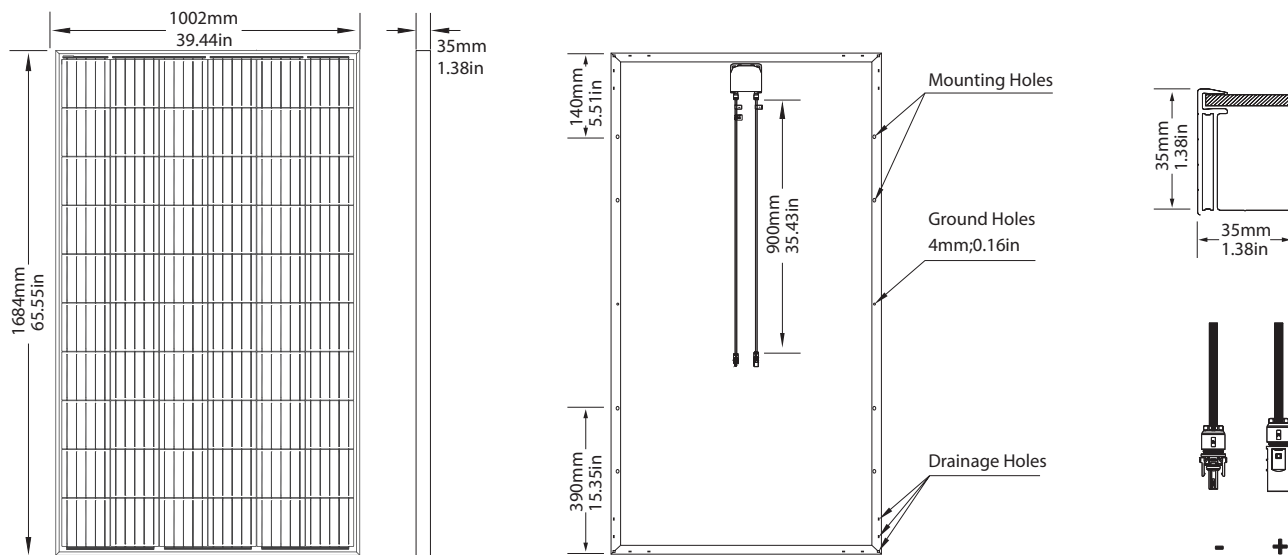
- 12 Years Product Workmanship Warranty
- 12 Years Minimum 92% Power Output
- 30 Years Minimum 83% Power Output



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## ESM 315/320/325/330/335 super black

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## Electrical Specification

Model Type	Unit	ESM 315	ESM 320	ESM 325	ESM 330	ESM 335
Maximum Power (Pmax)	W	315	320	325	330	335
Module Efficiency	%	18.88	19.18	19.48	19.78	20.08
Open Circuit Voltage (Voc)	V	40.7	40.9	41.1	41.3	41.5
Short Circuit Current (Isc)	A	10.04	10.15	10.20	10.31	10.36
Maximum Power Voltage (Vmp)	V	33.2	33.4	33.6	33.8	34.0
Maximum Power Current (Imp)	A	9.49	9.59	9.68	9.77	9.87
Maximum System Voltage	V	1500V(IEC/UL)/1000V(IEC/UL)				
Maximum Series Fuse Rating	A	20A				
Power Tolerance		0~+5W				

Standard Test Conditions (STC) of irradiance of 1000 W/m<sup>2</sup>, spectrum AM 1.5 and cell temperature of 25°C.

The NOCT is obtained under the Test Conditions: 800W/m<sup>2</sup>, 20°C ambient temperature, AM 1.5 Spectrum, 1m/s wind speed.

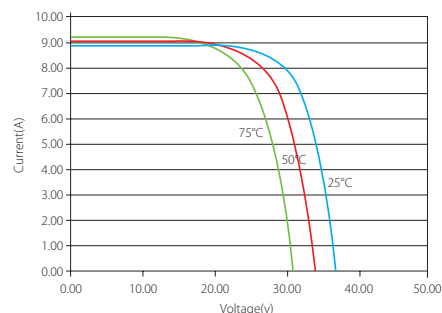
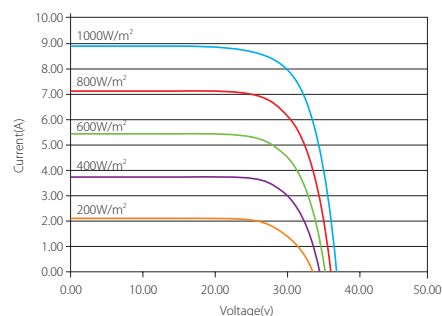
## Mechanical Specification

Module Dimension (mm)	1684 x 1002 x 35
Number of Cell	60
Weight (kgs)	19kg
Maximum Load (TUV) (Pascal)	5400
Junction Box and Cable connector	IP68 rated; MC4 compatible
Back-sheet and frame Color	Black
Ribbons and Busbar Color	Black

## Temperature Characteristics

Nominal Operating Cell Temperature (NOCT)	45 +/- 2 °C
Temperature Coefficient ( Pmax)	-0.35% / °C
Temperature Coefficient ( Voc)	-0.29% / °C
Temperature Coefficient ( Isc)	0.048% / °C
Operating Temperature	-40~85 °C

## IV CURVE



The specifications are subject to change without prior notice.