

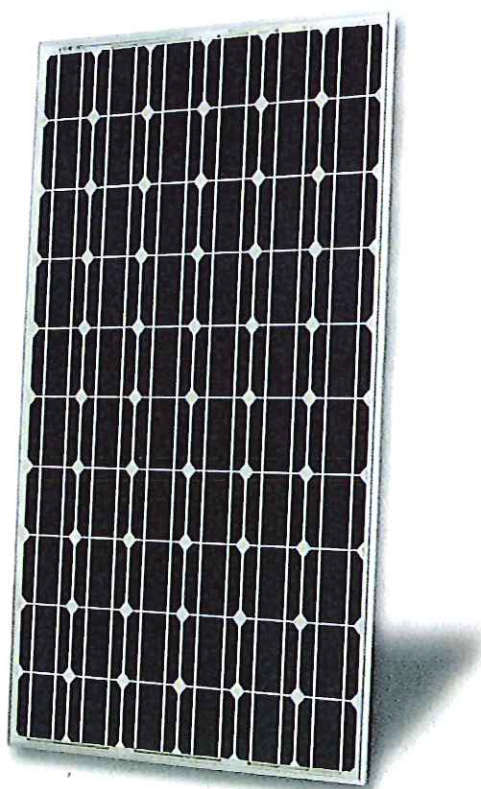


## ECS-220/230/240/250M60 Mono-crystalline PV Module



### Features

- € High conversion efficiency through advanced manufacturing technology
- € Excellent performance under weak light conditions (mornings, evenings and cloudy days)
- € Withstand snow loads up to 5400 Pa and wind loads up to 2400 Pa under extreme temperature
- € 10 years product warranty and 25 years performance warranty ensure reliability of modules
- € Easy installation



### Certificates

- € Manufactured according to International Quality Management System Standard: ISO 9001
- € Certified and approved by CE, TUV, IEC 61215, IEC 61730, MCS, CEC and PV CYCLE



### Electrical Characteristics under STC\*

Module Type	ECS-220M60	ECS-230M60	ECS-240M60	ECS-250M60
Maximum Power-Pmax (Wp)	220	230	240	250
Voltage at Maximum Power-Vmp (V)	29.9	30.1	30.3	31.4
Current at Maximum Power -Imp (A)	7.35	7.65	7.92	7.92
Open Circuit Voltage Voc (V)	36.5	37	37	37.2
Short Circuit Current-Isc (A)	8.02	8.1	8.31	8.38
Module Efficiency-ηm (%)	13.5	14.1	14.8	15.4
Power Tolerance (%)	0/+3	0/+3	0/+3	0/+3

### Mechanical Characteristics

Cell Type	Mono-crystalline 156x156 mm (6 inches)
Number of Cells	60 (6x10)
Dimension	1640x992x40mm (64.57x39.06x1.57 inches)
Weight	20.0 kg
Front Glass	Low Iron Tempered Glass
Encapsulant	EVA
Frame	Anodized Aluminum Alloy

### Temperature Characteristics

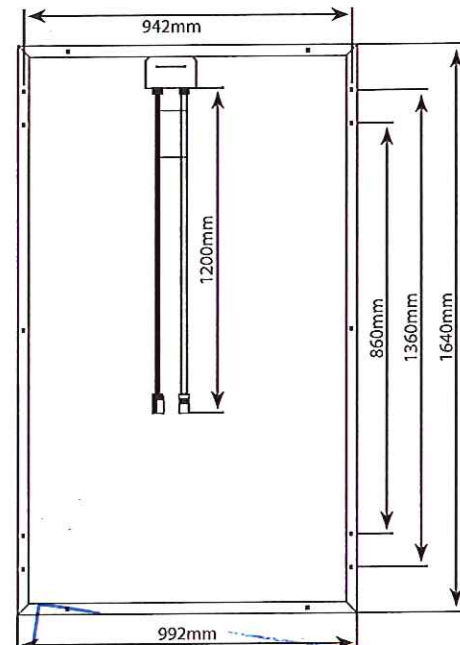
NOCT*	45±2°C
Temperature Coefficient of Pmax	-0.50%/°C
Temperature Coefficient of Voc	-0.35%/°C
Temperature Coefficient of Isc	0.060%/°C

### Maximum System Ratings

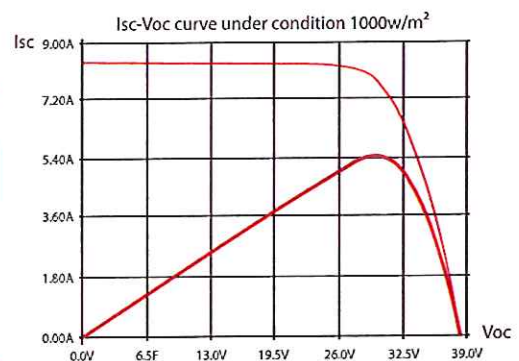
Operating Temperature	-40°C to +80°C
Maximum System Voltage	1000V DC
Maximum Series Fuse Rating	10A

### Warranty

10 years product warranty
10 years warranty on 90% power output
25 years warranty on 80% power output



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\*STC (Standard Testing Conditions): Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM=1.5

\*NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, wind speed 1 m/s

The specifications in this datasheet are subjected to change without prior notice