

### Mono & Poly-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
- € 12 years product warranty and 25 years performance warranty ensure reliability of modules
- € Easy installation

## Certificates

- € Manufactured according to International Management System Standard  
Quality Management system: ISO9001  
Environmental Management System: ISO14001  
Occupational Health and Safety Management System: OHSAS18001
- € Certified and approved by CE, INMETRO, TUV, IEC 61215, IEC 61730, MCS, CEC and PV CYCLE



# MONO-CRYSTALLINE MODULE

## Electrical Characteristics under STC\*

| Module Type                                  | ECS-270M60 | ECS-275M60 | ECS-280M60 | ECS-285M60 | ECS-290M60 | ECS-295M60 | ECS-300M60 |
|--|------------|------------|------------|------------|------------|------------|------------|
| Maximum Power-P <sub>max</sub> (Wp)          | 270        | 275        | 280        | 285        | 290        | 295        | 300        |
| Voltage at Maximum Power-V <sub>mp</sub> (V) | 31.5       | 31.9       | 32.3       | 32.7       | 33.1       | 33.5       | 33.9       |
| Current at Maximum Power-I <sub>mp</sub> (A) | 8.57       | 8.62       | 8.67       | 8.72       | 8.76       | 8.81       | 8.86       |
| Open Circuit Voltage-V <sub>oc</sub> (V)     | 38.5       | 38.9       | 39.3       | 39.8       | 40.2       | 40.6       | 41.0       |
| Short Circuit Current-I <sub>sc</sub> (A)    | 9.35       | 9.43       | 9.50       | 9.55       | 9.62       | 9.75       | 9.83       |
| Module Efficiency-η <sub>m</sub> (%)         | 16.6       | 16.9       | 17.1       | 17.5       | 17.8       | 18.0       | 18.3       |
| Power Tolerance (%)                          | 0/+3       | 0/+3       | 0/+3       | 0/+3       | 0/+3       | 0/+3       | 0/+3       |

## Mechanical Characteristics

|                 |  |                       |
|-----------------|--|-----------------------|
| Cell Type       | Mono-crystalline                         | 156×156 mm (6 inches) |
| Number of Cells | 60 (6×10)                                |                       |
| Dimension       | 1640×992×35 mm (64.57×39.06×1.38 inches) |                       |
| Weight          | 20.0 kg                                  |                       |
| Front Glass     | Low Iron Tempered Glass                  |                       |
| Encapsulant     | EVA                                      |                       |
| Frame           | Anodized Aluminum Alloy                  |                       |

## Temperature Characteristics

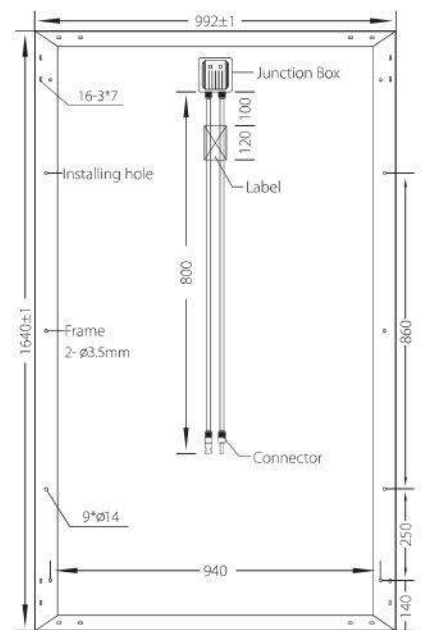
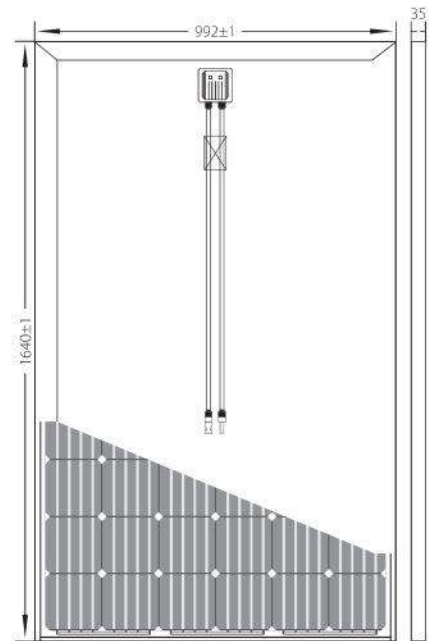
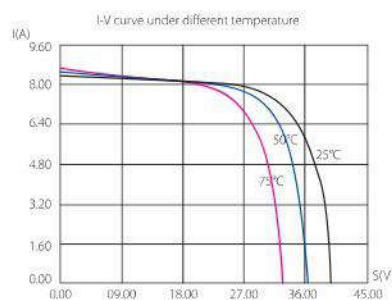
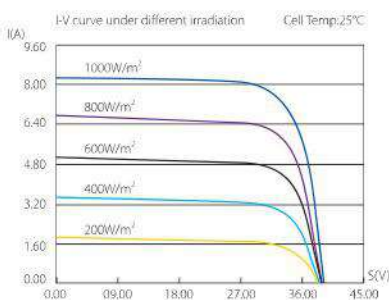
|   |          |
|---|----------|
| NOCT*   | 45±2°C   |
| Temperature Coefficient of P <sub>max</sub> (%) | -0.40/°C |
| Temperature Coefficient of V <sub>oc</sub> (%)  | -0.31/°C |
| Temperature Coefficient of I <sub>sc</sub> (%)  | 0.04/°C  |

## Maximum System Ratings

|                            |                |
|----------------------------|----------------|
| Operating Temperature      | -40°C to +80°C |
| Maximum System Voltage     | 1000V DC       |
| Maximum Series Fuse Rating | 16A            |

## Warranty

- 12 years product warranty
- 12 years warranty on 90% power output
- 25 years warranty on 80% power output



\*STC (Standard Testing Conditions): Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM=1.5  
ambient temperature 20 °C, wind speed 1 m/s

\*NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>,  
The specifications in this datasheet are subjected to change without prior notice.

# POLY-CRYSTALLINE MODULE

## Electrical Characteristics under STC\*

| Module Type                      | ECS-250P60 | ECS-255P60 | ECS-260P60 | ECS-265P60 | ECS-270P60 | ECS-275P60 | ECS-280P60 |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|
| Maximum Power-Pmax (Wp)          | 250        | 255        | 260        | 265        | 270        | 275        | 280        |
| Voltage at Maximum Power-Vmp (V) | 30.1       | 30.4       | 30.8       | 31.0       | 31.1       | 31.5       | 31.8       |
| Current at Maximum Power-Imp (A) | 8.32       | 8.39       | 8.44       | 8.55       | 8.68       | 8.73       | 8.81       |
| Open Circuit Voltage-Voc (V)     | 37.50      | 37.60      | 37.80      | 38.05      | 38.17      | 38.3       | 38.52      |
| Short Circuit Current-Isc (A)    | 8.73       | 8.79       | 8.85       | 8.96       | 9.09       | 8.98       | 9.1        |
| Module Efficiency-ηm (%)         | 15.4       | 15.7       | 16.0       | 16.2       | 16.5       | 16.9       | 17.2       |
| Power Tolerance (%)              | 0/+3       | 0/+3       | 0/+3       | 0/+3       | 0/+3       | 0/+3       | 0/+3       |

## Mechanical Characteristics

|                 |  |                       |
|-----------------|--|-----------------------|
| Cell Type       | Poly-crystalline                         | 156x156 mm (6 inches) |
| Number of Cells | 60 (6x10)                                |                       |
| Dimension       | 1640x992x35 mm (64.57x39.06x1.38 inches) |                       |
| Weight          | 20.0 kg                                  |                       |
| Front Glass     | Low Iron Tempered Glass                  |                       |
| Encapsulant     | EVA                                      |                       |
| Frame           | Anodized Aluminum Alloy                  |                       |

## Temperature Characteristics

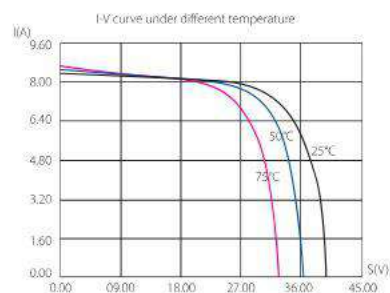
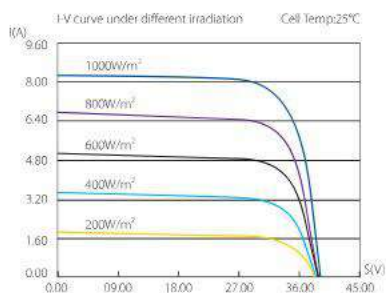
|                                     |          |
|-------------------------------------|----------|
| NOCT*                               | 45±2°C   |
| Temperature Coefficient of Pmax (%) | -0.40/°C |
| Temperature Coefficient of Voc (%)  | -0.31/°C |
| Temperature Coefficient of Isc (%)  | 0.04/°C  |

## Maximum System Ratings

|                            |                |
|----------------------------|----------------|
| Operating Temperature      | -40°C to +80°C |
| Maximum System Voltage     | 1000V DC       |
| Maximum Series Fuse Rating | 16A            |

## Warranty

- 12 years product warranty
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\*STC (Standard Testing Conditions): Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM=1.5, ambient temperature 20 °C, wind speed 1 m/s

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