# EN156P-144- 325/330/335/340/345W

## Polycrystalline Solar Module
## 144 Half-Cell Series



## ABOUT ECONESS ENERGY

Established in 2009 by Jiangsu Huadong Group (founded in 1997), Econess Energy is a world's leading solution provider for solar energy.With annual production capacity of 800MW cells and 1.2GW modules.Econess Energy now distributes its PVproducts to over 36 countries with cumulative module shipment of 3GW.As a strong,bankable partner,we are committed to building strategic,mutually beneficial collaboration with installers and developers.

## KEY FEATURES

**Maximize limited space**
Half cell structure technology (low resistance characteristics), more Internal reflection,Module maximum power output 345W

**Significantly reduce the hot spot effect**
Unique circuit design significantly reduces hot spot temperature and power loss

**IP68 junction box**
The highest waterproof level

**Excellent Anti-PID performance**
2 times of industry standard Anti-PID test by TUV

**Lower temperature coefficients**
Enhance power generation

**Certified to withstand the most challenging environmental conditions**
2400 Pa wind load·5400 Pa snow load·25mm hail stones at 82 km/h

## SYSTEM & PRODUCT CERTIFICATES

- IEC 61215 / IEC 61730 / UL 1703
- ISO 9001 : 2015 Quality Management System
- ISO 14001 : 2015 Environment Mangement System
- OHSAS 18001 : 2007 Occupational Health and Safety Management System

## QUALITY WARRANTY

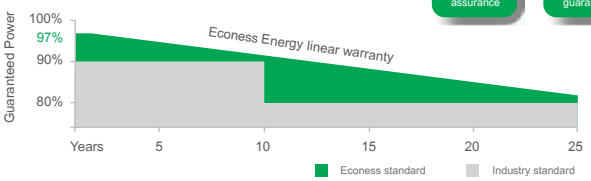
Econess Energy guarantees that defects will not appear in materials and workmanship defined by IEC61215, IEC61730 or UL1703 under normal installation, use and maintenance as specified in Econess Energy's installation manual for 10 years from the warranty starting date.

## PERFORMANCE WARRANTY

### Polycrystalline Solar Module

**10** years — Quality assurance

**25** years — Power output guarantee




Version No.:EN_2018_12

## ELECTRICAL PARAMETERS

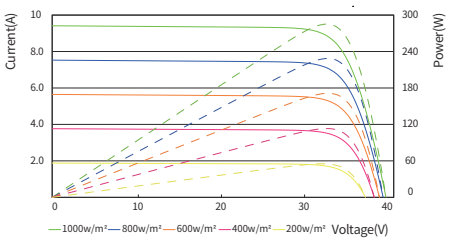
| Performance at STC (Power Tolerance 0 - +3%) | | | | | |
|---|---|---|---|---|---|
| Maximum Power(Pmax/W) | 325 | 330 | 335 | 340 | 345 |
| Operating Voltage (Vmpp/V) | 37.43 | 37.73 | 38.04 | 38.31 | 38.55 |
| Operating Current(Impp/A) | 8.69 | 8.75 | 8.81 | 8.88 | 8.95 |
| Open-Circuit Voltage (Voc/V) | 45.71 | 45.90 | 46.23 | 46.44 | 46.68 |
| Short-Circuit Current(Isc/A) | 9.23 | 9.29 | 9.33 | 9.40 | 9.48 |
| Module Efficiency ηm (%) | 16.38 | 16.63 | 16.89 | 17.14 | 17.39 |
| **Performance at NMOT** | | | | | |
| Maximum Power(Pmax/W) | 240 | 243 | 247 | 251 | 255 |
| Operating Voltage(Vmpp/V) | 34.34 | 34.45 | 34.84 | 35.06 | 35.37 |
| Operating Current(Impp/A) | 6.99 | 7.05 | 7.10 | 7.16 | 7.21 |
| Open-Circuit Voltage(Voc/V) | 42.16 | 42.28 | 42.55 | 42.74 | 42.98 |
| Short-Circuit Current(Isc/A) | 7.47 | 7.52 | 7.56 | 7.62 | 7.66 |

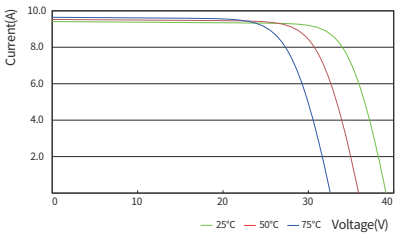
STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5  NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s

## MECHANICAL SPECIFICATION

| | |
|---|---|
| Cell Type | Half-Cell Poly |
| Cell Dimensions | 6inch |
| Cell Arrangement | 144(6*24) |
| Weight | 23kg(50.71lbs) |
| Module Dimensions | 2000*992*40mm(78.74*39.06*1.57inches) |
| Cable Length | 300mm(11.81inch) |
| Cable Cross Section Size | 4mm²(0.006sq.in) |
| Front Glass | 3.2mm High Transmission, Tempered Glass |
| No.of Bypass Diodes | 3/6 |
| Packing Configuration (1) | 27pcs/Pallet,594pcs/40hq |
| Packing Configuration (2) | 27pcs+4pcs/Pallet, 638pcs/40hq |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68 |

## I-V CURVE



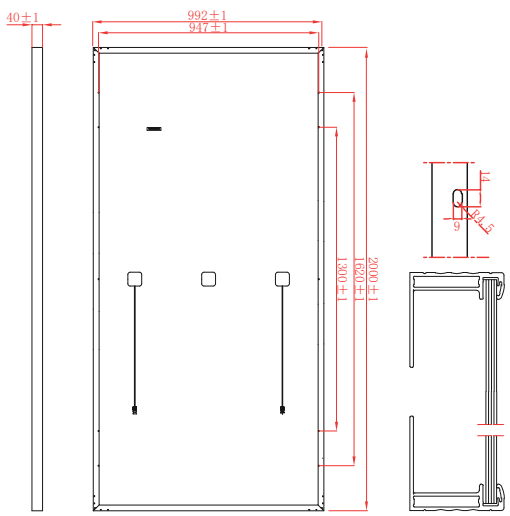

## OPERATING CONDITIONS

| | |
|---|---|
| Maximum System Voltage | 1000V/DC(IEC)/1500V/DC(IEC) |
| Operating Temp | -40°C-+85°C |
| Maximum Series Fuse | 15A/20A |
| Static Loading | 5400Pa |
| Conductivity at Ground | ⩽0.1Ω |
| Safety Class | II |
| Resistance | ⩾100MΩ |
| Connector | MC4 Compatible |

## TEMPERATURE COEFFICIENT

| | |
|---|---|
| Temperature Coefficient(Pmax) | -0.40%/°C |
| Temperature Coefficient(Voc) | -0.31%/°C |
| Temperature Coefficient(Isc) | +0.06%/°C |
| NMOT | 45±2°C |

## TECHNICAL DRAWINGS




Version No.:EN_2018_12


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* This is preliminary datasheet and for reference only. The specifications and key features contained in this datasheet may deciate slightly from our actual products due to the on-going innovation and product enhancement.Econess Energy reserves the right to make necessary adjustment to the information describrd herein at any time without further notice.