

# EN156M-60S-295/300/305/310W/315W

Smart High Efficiency PERC Monocrystalline Solar Module 60-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 4GW.As a strong,bankable partner,we are committed to building strategic,mutually beneficial collaboration with installers and developers.



#### **KEY FEATURES**

Maximize limited space Maximum power output 315W

2 times of industry standard

Anti-PID test by TUV

Excellent Anti-PID performance



IP67 junction box The highest waterproof level

Certified to withstand the most challenging environmental conditions 2400 Pa wind load · 5400 Pa snow load · 25mm hail stones

at 82 km/h

Smart Module

By module data collecting, it can realise the real-time monitoring , high-temp alarm and remote failure diagnosis

## SYSTEM & PRODUCT CERTIFICATES

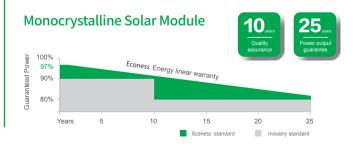
- IEC 61215 / IEC 61730 / UL 1703
- ISO 9001 : 2015 Quality Management System
- ISO 14001 : 2015 Environment Mangement System
- OHSAS 18001 : 2007 Occupational Health and Safety Management System



# **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**



#### **ELECTRICAL PARAMETERS**

#### Performance at STC (Power Tolerance 0 - +3%)

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Maximum Power(Pmax/W)	295	300	305	310	315
Operating Voltage (Vmpp/V)	32.61	32.9	33.22	33.53	33.85
Operating Current(Impp/A)	9.05	9.12	9.19	9.25	9.31
Open-Circuit Voltage (Voc/V)	39.52	39.71	39.90	40.12	40.34
Short-Circuit Current(Isc/A)	9.49	9.57	9.64	9.71	9.78
Module Efficiency ηm (%)	18.02	18.33	18.63	18.94	19.24
Performance at NMOT					
Maximum Power(Pmax/W)	217	221	225	229	233
Operating Voltage(Vmpp/V)	29.95	30.24	30.62	30.99	31.36
Operating Current(Impp/A)	7.25	7.31	7.35	7.39	7.43
Open-Circuit Voltage(Voc/V)	36.46	36.66	36.87	36.96	37.12
Short-Circuit Current(Isc/A)	7.70	7.75	7.80	7.84	7.88
STC: Irradiance 1000W/m <sup>2</sup> Cell Temperature 25	C Air Mass AM1 5	NMOT: Irradianco at 9	00W/m <sup>2</sup> Ambient Ter	nporaturo 20°C Min	d Spood 1m/s

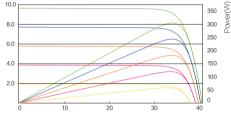
STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s

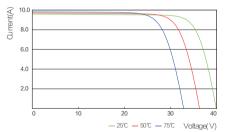
## **MECHANICAL SPECIFICATION**

Mono PERC · 5BB
6 inch (156.75 x 156.75 mm)
60 (6 x 10)
18 kg (39.68 lb)
1650 x 992 x 35 mm (64.96 x 39.06 x 1.38 inch)
900 mm (35.4 inch)
4 mm² (0.006 sq.in)
3.2 mm High Transmission, Tempered Glass
3/6
31pcs/Pallet, 868pcs/40hq
31pcs+4pcs/Pallet, 924pcs/40hq
Anodized Aluminium Alloy
IP67

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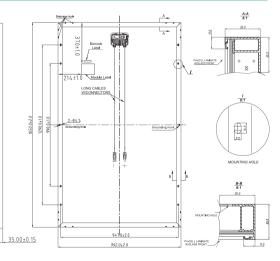
## **OPERATING CONDITIONS**

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

## **TEMPERATURE COEFFICIENT**

Temperature Coefficient(Pmax)	-0.39%/°C
Temperature Coefficient(Voc)	-0.30%/°C
Temperature Coefficient(Isc)	+0.05%/°C
NMOT	45±2°C

## **TECHNICAL DRAWINGS (mm)**



# Econess Energy Co., Ltd.

#### 58 Haida Road, Huashi, Jiangyin, Jiangsu, P.R. China 214421 +86-510-86076868

sales@eco-pv.com www.eco-pv.com

\* 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.