

**For a Free Quote:**

**Web: [EnergyPal.com/solar](http://EnergyPal.com/solar)**

**Call: 1-800-990-3725**

**Email: [contact@energypal.com](mailto:contact@energypal.com)**

# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**ReneSola Ltd.  
Twin1.0 Poly 280-300  
JC290M-Bbc**

Also available on the web at  
[EnergyPal.com/renesola-ltd-solar-panels/jc290m-bbc](http://EnergyPal.com/renesola-ltd-solar-panels/jc290m-bbc)

# ReneSola

## Twin1.0

Poly Half-Cut Module

280W/285W/290W/295W/300W



Efficiency

High Module Conversion Efficiencies



Easy & Quick

Easy Installation and Handling for Various Applications



- 2400Pa -  
- 5400Pa -

Mechanical Load Capability of up to 5400 Pa



IEC & PID

Conforms with IEC 61215:2005,  
IEC 61730:2004, PID Test



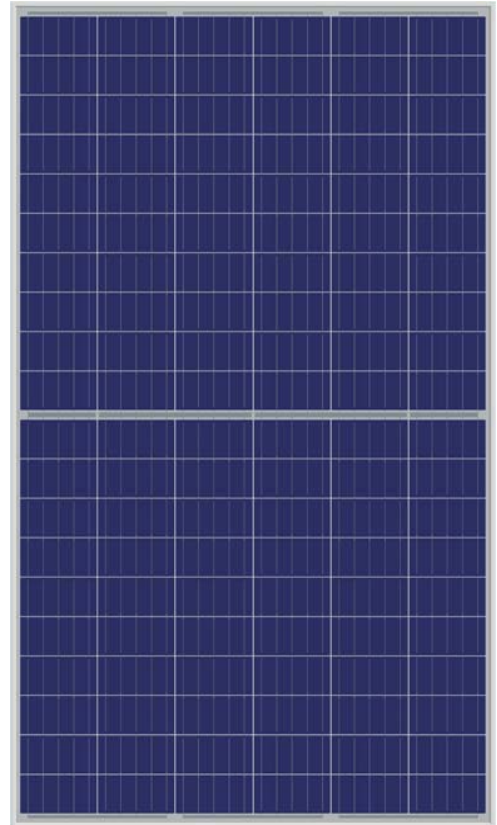
Certification

ISO9001, OHSAS18001, ISO14001 Certified

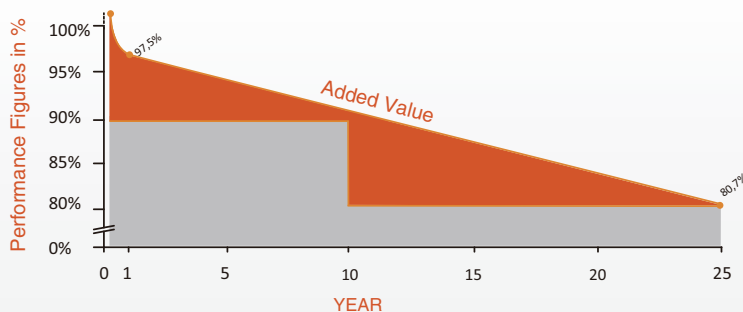


Safety & Fire

Application Class A, Safety Class II, Fire Rating C



Drawing Only for Reference



10-year

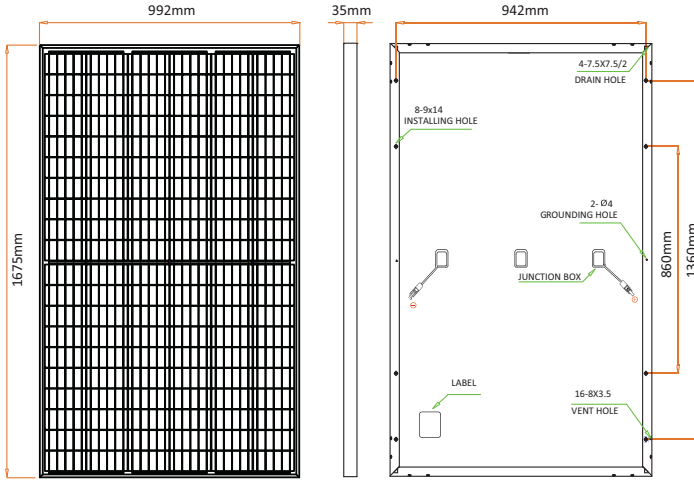
Material & Workmanship

25-year

Linear Power Output

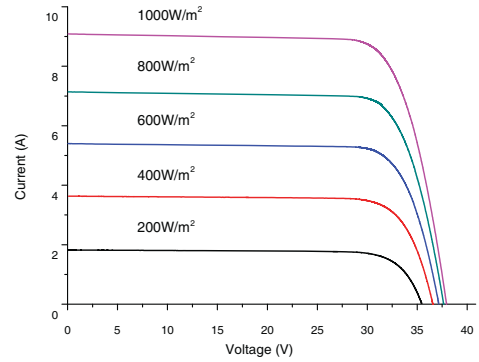


#### Dimensions



Drawing Only for Reference

#### I-V Curves



#### Electrical Characteristics STC

	JC280M-Bbc	JC285M-Bbc	JC290M-Bbc	JC295M-Bbc	JC300M-Bbc
Maximum Power (Pmax)	280 W	285 W	290 W	295 W	300 W
Power Tolerance	0 ~ +5W	0 ~ +5W	0 ~ +5W	0 ~ +5W	0 ~ +5W
Module Efficiency	16.9%	17.2%	17.5%	17.8%	18.0%
Maximum Power Current (Imp)	8.84A	8.94 A	9.07A	9.17 A	9.30A
Maximum Power Voltage (Vmp)	31.7 V	31.9 V	32.0 V	32.2 V	32.3 V
Short Circuit Current (Isc)	9.25 A	9.37 A	9.49A	9.58 A	9.70 A
Open Circuit Voltage (Voc)	38.0 V	38.2 V	38.2 V	38.5V	38.6 V

Values at Standard Test Conditions STC (AM1.5, Irradiance of 1000W/m<sup>2</sup>, Cell Temperature 25° C)

#### Electrical Characteristics NOCT

	JC280M-Bbc	JC285M-Bbc	JC290M-Bbc	JC295M-Bbc	JC300M-Bbc
Maximum Power (Pmax)	207 W	211 W	215 W	219 W	223 W
Maximum Power Current (Imp)	7.09 A	7.21 A	7.32 A	7.42 A	7.53 A
Maximum Power Voltage (Vmp)	29.2 V	29.3 V	29.4 V	29.5 V	29.7 V
Short Circuit Current (Isc)	7.54 A	7.66 A	7.77 A	7.86 A	7.98 A
Open Circuit Voltage (Voc)	36.2 V	36.3 V	36.5 V	36.6 V	36.7V

Values at Normal Operating Cell Temperature, Irradiance of 800W/m<sup>2</sup>, AM1.5, Ambient Temperature 20°C, Wind Speed 1m/s.

#### Mechanical Characteristics

Cell Type	Polycrystalline, 156 x78 mm, 120 (6x20) Half-Cut Cells
Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP67 Rated, With Bypass Diodes
Dimension	*1675 x 992 x 35 mm
Output Cable	4 mm <sup>2</sup> (EU), 500 mm
Weight	19.5 kg
Installation Hole Location	See Drawing Above

#### Characteristics

Temperature Coefficient of Voc	-0.30%/°C
Temperature Coefficient of Isc	0.04%/°C
Temperature Coefficient of Pmax	-0.40%/°C
Nominal Operating Cell Temperature (NOCT)	45°C±2°C

#### Packing Information

	20' GP	40' GP	40' HQ
Container	20' GP	40' GP	40' HQ
Pallets per Container	12	28	28
Pieces per Container	360	840	910

#### Maximum Ratings

Operating Temperature	-40°C ~ +85°C
Maximum System Voltage	1000VDC
Maximum Series Fuse Rating	20A

# ReneSola

## Twin1.0

Poly Half-Cut Module

280W/285W/290W/295W/300W



High Module Conversion Efficiencies



Easy Installation and Handling for Various Applications



Mechanical Load Capability of up to 5400 Pa



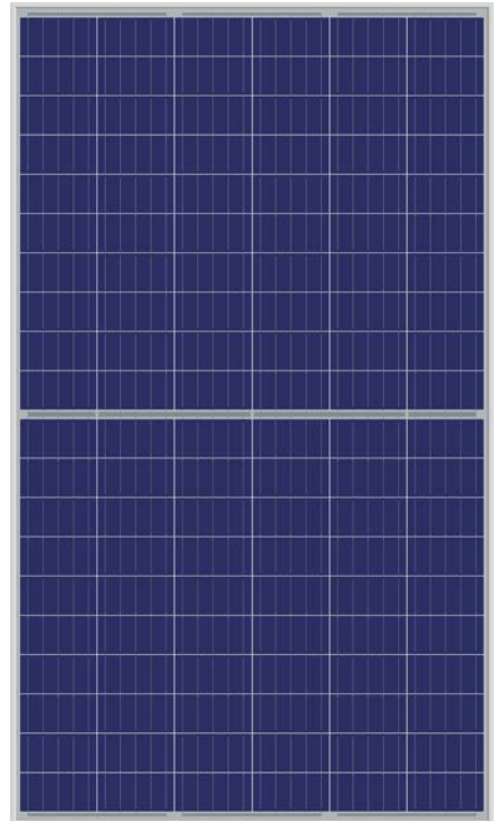
Conforms with IEC 61215:2005,  
IEC 61730:2004, PID Test



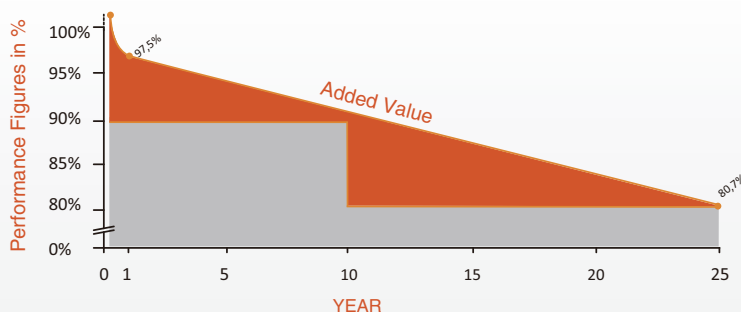
ISO9001, OHSAS18001, ISO14001 Certified



Application Class A, Safety Class II, Fire Rating C



Drawing Only for Reference

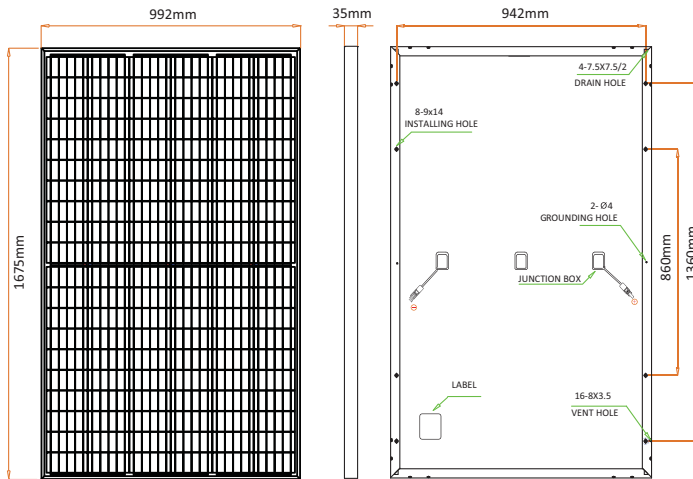


**10-year**  
Material & Workmanship

**25-year**  
Linear Power Output

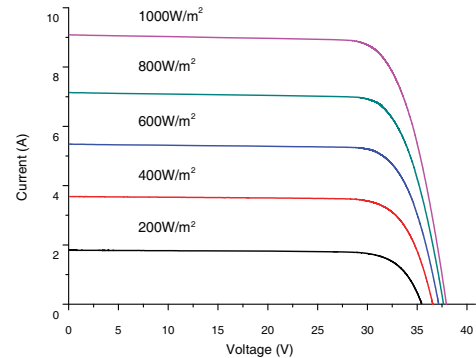


#### Dimensions



Drawing Only for Reference

#### I-V Curves



Electrical Characteristics STC	JC280M-Bbcp	JC285M-Bbcp	JC290M-Bbcp	JC295M-Bbcp	JC300M-Bbcp
Maximum Power (Pmax)	280 W	285 W	290 W	295 W	300 W
Power Tolerance	0 ~ +5W	0 ~ +5W	0 ~ +5W	0 ~ +5W	0 ~ +5W
Module Efficiency	16.9%	17.2%	17.5%	17.8%	18.0%
Maximum Power Current (Imp)	8.84A	8.94 A	9.07A	9.17 A	9.30A
Maximum Power Voltage (Vmp)	31.7 V	31.9 V	32.0 V	32.2 V	32.3 V
Short Circuit Current (Isc)	9.25 A	9.37 A	9.49A	9.58 A	9.70 A
Open Circuit Voltage (Voc)					

Values at Standard Test Conditions STC (AM1.5, Irradiance of 1000W/m<sup>2</sup>, Cell Temperature 25° C)

Electrical Characteristics NOCT	JC280M-Bbcp	JC285M-Bbcp	JC290M-Bbcp	JC295M-Bbcp	JC300M-Bbcp
Maximum Power (Pmax)	207 W	211 W	215 W	219 W	223 W
Maximum Power Current (Imp)	7.09 A	7.21 A	7.32 A	7.42 A	7.53 A
Maximum Power Voltage (Vmp)	29.2 V	29.3 V	29.4 V	29.5 V	29.7 V
Short Circuit Current (Isc)	7.54 A	7.66 A	7.77 A	7.86 A	7.98 A
Open Circuit Voltage (Voc)	36.2 V	36.3 V	36.5 V	36.6 V	36.7V

Values at Normal Operating Cell Temperature, Irradiance of 800W/m<sup>2</sup>, AM1.5, Ambient Temperature 20°C, Wind Speed 1m/s.

#### Mechanical Characteristics

Cell Type	Polycrystalline, 156 x78 mm, 120 (6x20) Half-Cut Cells
Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68 Rated, With Bypass Diodes
Dimension	*1675 x 992 x 35 mm
Output Cable	4 mm <sup>2</sup> (EU), 500 mm
Weight	19.5 kg
Installation Hole Location	See Drawing Above

#### Characteristics

Temperature Coefficient of Voc	-0.30%/°C
Temperature Coefficient of Isc	0.04%/°C
Temperature Coefficient of Pmax	-0.40%/°C
Nominal Operating Cell Temperature (NOCT)	45°C±2°C

#### Packing Information

Container	20' GP	40' GP	40' HQ
Pallets per Container	12	28	28
Pieces per Container	360	840	910

#### Maximum Ratings

Operating Temperature	-40°C ~ +85°C
Maximum System Voltage	1500VDC
Maximum Series Fuse Rating	20A