

Join the Energy Revolution!

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Virtus<sup>®</sup> represents the highest technological of Quasi-Mono products in the industry. Based on the traditional multicrystalline casting furnace, adopting hotzone and processing technical developed by ReneSola, it's capable to produce the Quasi-Mono wafer, those performance is much closer to mono wafer by Czochralski technology.

Virtus<sup>®</sup> is able to improve the average conversion efficiency of conventional multicrystalline wafers from 16.5% to more than 18.2%. The efficiency of modules approaches or exceeds general monocrystalline modules. Virtus<sup>®</sup> is much lower than monocrystalline in both energy consumption and manufacturing costs, which helps reduce the overall investment in photovoltaic systems, thus improving the rate of return on investment.

## Virtus<sup>®</sup> Advantages:

- Advanced texturing and coating technologies
- Lower light induced degradation
- Lower production cost
- Higher efficiency
- Excellent electricity generation capacity under high temperature

## Virtus<sup>®</sup> Features

- Higher Efficiency**  
The average efficiency of (High-end (V+)) product cells can reach 18.2%
- Larger Area**  
Rectangular shape, increasing the area of power generation
- Quicker Return**  
Reduce the total investment of PV systems and shorten the time of return on investment
- Lower LID**  
Light induced degradation(LID) is significantly lower than that of monocrystalline cells
- Less Power Loss**  
CTM Power Loss is lower than that of monocrystalline cells

## About ReneSola

Established in 2005, ReneSola Ltd. (NYSE: SOL) is a leading global photovoltaic manufacturer with our own R&D team, advanced production equipment and deep production experience. ReneSola has 17 subsidiaries, with our own production bases distributed in Zhejiang Jiashan, Jiangsu Wuxi and Sichuan Meishan. We specialize in the R&D and manufacturing of polysilicon, silicon wafer and solar modules and are one of the few large Solar conglomerates with vertically integrated operations from virgin polysilicon to photovoltaic systems in the global photovoltaic industry.

ReneSola was listed on the New York Stock Exchange (NYSE:SOL) in 2008. Our products have been delivered all over the world since our establishment. We have locations worldwide with sales branches established in Europe, the Americas and the Asia-Pacific regions, providing customers with timely services and high-quality photovoltaic products.

With our innovative technology capabilities and quality products, ReneSola is actively expanding the downstream business, providing integrated solutions for commercial, agricultural and large-scale projects to tirelessly and continuously improve the strategic status of solar energy and to further improve our innovative capability.



## Virtus Module

250W, 255W, 260W



High Module Conversion Efficiencies



Easy Installation and Handling



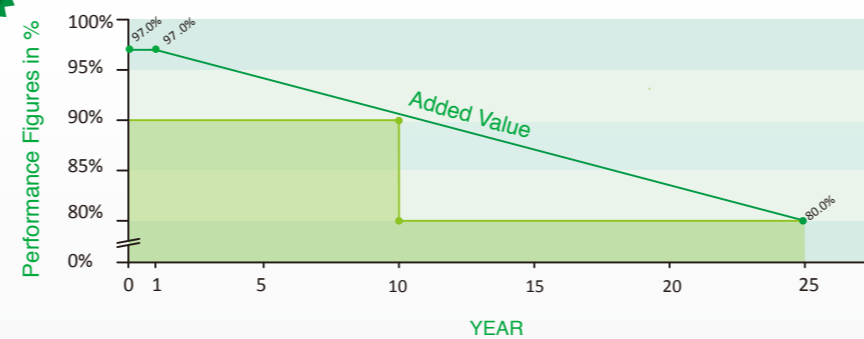
Mechanical Load Capability of up to 5400 Pa



Conforms with IEC 61215:2005, IEC 61730: 2004, UL 1703 PV Standards



ISO9001, OHSAS18001, ISO14001 Certified



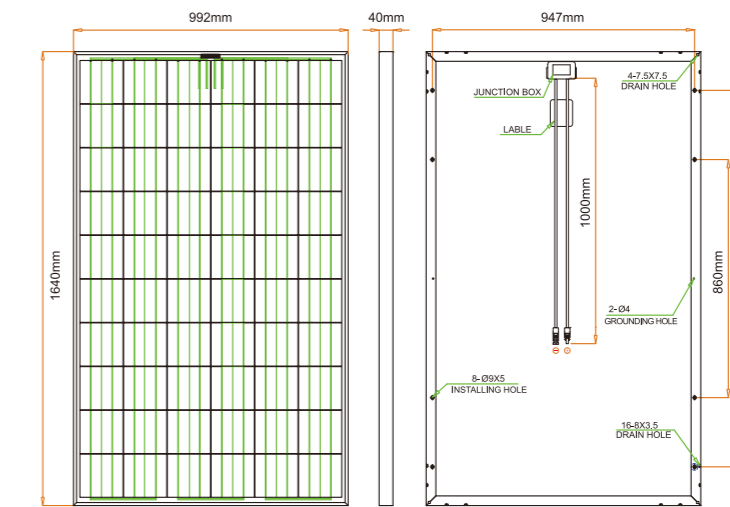
- 10-year**  
material & workmanship
- 25-year**  
linear power output



## Virtus Module

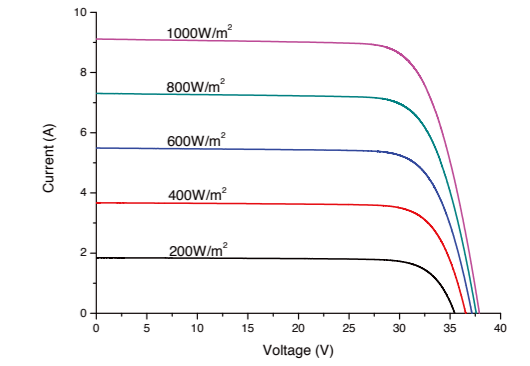
250W, 255W, 260W

### Dimensions



Drawing Only for Reference

### I-V Curves



### Varied Irradiation Efficiencies

Irradiance	200W/m <sup>2</sup>	400W/m <sup>2</sup>	600W/m <sup>2</sup>	800W/m <sup>2</sup>	1000W/m <sup>2</sup>
Efficiency	15.7%	16.0%	16.1%	16.1%	16.0%

### Electrical Characteristics STC

	JC250M-24/Bbv	JC255M-24/Bbv	JC260M-24/Bbv
Maximum Power (Pmax)	250 W	255 W	260 W
Power Tolerance	0 ~ +5W	0 ~ +5W	0 ~ +5W
Module Efficiency	15.4%	15.7%	16.0%
Maximum Power Current (Imp)	8.29 A	8.43 A	8.56 A
Maximum Power Voltage (Vmp)	30.2 V	30.3 V	30.4 V
Short Circuit Current (Isc)	8.84 A	8.98 A	9.09 A
Open Circuit Voltage (Voc)	37.3 V	37.4 V	37.6 V

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

### Electrical Characteristics NOCT

	JC250M-24/Bbv	JC255M-24/Bbv	JC260M-24/Bbv
Maximum Power (Pmax)	186 W	189 W	193 W
Maximum Power Current (Imp)	6.59 A	6.69 A	6.77 A
Maximum Power Voltage (Vmp)	28.2 V	28.2 V	28.5 V
Short Circuit Current (Isc)	7.13 A	7.20 A	7.27 A
Open Circuit Voltage (Voc)	35.0 V	35.0 V	35.2 V

Values at Normal Operating Cell Temperature, Irradiance of 800 W/m<sup>2</sup>, spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s

### Mechanical Characteristics

Cell Type	156 x156 mm Virtus, 60 (6x10) pcs in series
Glass	High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP65/IP67 rated, with bypass diodes
Dimension	*1640 x 992 x 40 mm
Output Cable	4 mm <sup>2</sup> (EU)/12 AWG (US), 1000 mm
Weight	19 Kg
Installation Hole Location	See Drawing Above

### Characteristics

Temperature Coefficient of Voc	-0.29%/°C
Temperature Coefficient of Isc	0.04%/°C
Temperature Coefficient of Pmax	-0.39%/°C
Nominal Operating Cell Temperature (NOCT)	45°C±2°C

### Packing Information

	20' GP	40' GP	40' HQ
Container			
Pallets per Container	12	28	28
Pieces per Container	300	700	770

### Maximum Ratings

Operating Temperature	-40°C ~ + 85°C
Maximum System Voltage	1000VDC (EU) / 600VDC (US)
Maximum Series Fuse Rating	20A (EU) / 15A (US)

Rev No: JC/TDS/2012.06 \*Contact ReneSola for tolerance specification  
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