

## ABOUT PHONO SOLAR

Phono Solar Technology Co., Ltd. is one of the world's leading renewable energy product manufacturers and a well trusted brand provider. The Phono Solar brand has become synonymous with high performing, top quality photovoltaic panels that are ideal for use in large scale power plants, commercial and residential installations.



Up to 17% module efficiency



A+ class in PI Berlin test



Outstanding performance in weak-light conditions



IP68 connectors enhance the reliability of the PV system



Excellent temperature coefficient giving higher yields in the long term



Certified to withstand increased loads of up to 5400Pa



Positive current sorting



10-year product warranty\*  
25-year performance warranty\*

Durability assured:



Salt mist corrosion certification



Ammonia corrosion certification



Fire test certification

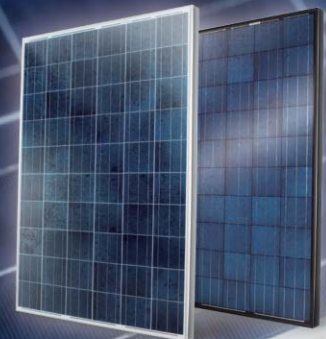
- Manufacturing facility certified by ISO 9001, ISO 14001 and OHSAS 18001
- Internal quality control has standards higher than both IEC and UL

- Product quality is assured through the use of branded components
- Free module recycling through PV Cycle Association membership\*\*

## HIGH PERFORMANCE SOLAR MODULES

# 235W-265W

POLY



Diamond Series

Onyx Series

\* IN COMPLIANCE WITH OUR WARRANTY TERMS AND CONDITIONS.

\*\* IN PV CYCLE MEMBER COUNTRIES ONLY, SEE: WWW.PVCYCLE.COM



## MECHANICAL CHARACTERISTICS

<b>Solar Cells</b>	Polycrystalline 156mm x 156mm square, 6 $\times$ 10 pieces in series
<b>Dimension</b>	Length: 1640mm (64.6 inch)
	Width: 992mm (39.1 inch)
	Height: 40mm (1.6 inch)
<b>Weight</b>	19kg (41.9lbs)
<b>Front Glass</b>	3.2mm toughened glass
<b>Frame</b>	Anodized aluminium alloy
<b>Cable</b>	0.90m wire ( $\phi$ 4mm <sup>2</sup> )
<b>Junction Box</b>	IP 65 rated

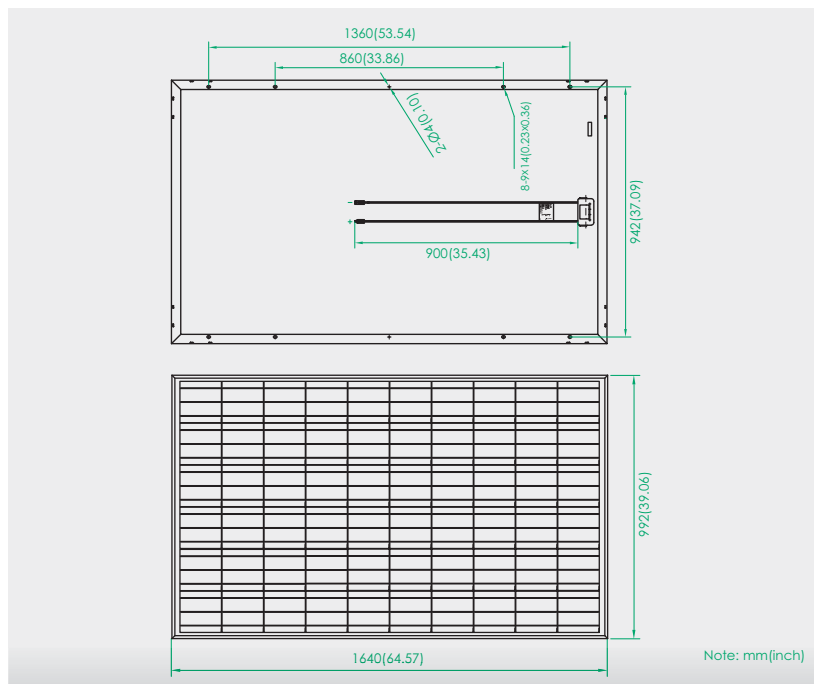
## ABSOLUTE MAXIMUM RATING

Parameter	Values
Operating Temperature	From -40 to +85°C
Hail Diameter @ 80km/h	Up to 25mm
Surface Maximum Load Capacity	Up to 5400Pa
Maximum Series Fuse Rating	15A
IEC Application Class (IEC 61215)	A
Fire Rating (UL 1703)	C
Maximum System Voltage	1000V DC (IEC 61215)
	1000V DC (UL 1703)

## ELECTRICAL TYPICAL VALUES<sup>1,2</sup>

Model	Rated Power ( $P_{mpp}$ )	Tolerance	Rated Current ( $I_{mpp}$ )	Rated Voltage ( $V_{mpp}$ )	Short Circuit Current ( $I_{sc}$ )	Open Circuit Voltage ( $V_{oc}$ )	Module Efficiency (%)
PS235P-20/U	235W	0~+5W	7.94A	29.6V	8.40A	37.3V	14.44
PS240P-20/U	240W	0~+5W	8.06A	29.8V	8.50A	37.5V	14.75
PS245P-20/U	245W	0~+5W	8.18A	30.0V	8.60A	37.7V	15.06
PS250P-20/U	250W	0~+5W	8.30A	30.2V	8.70A	37.8V	15.37
PS255P-20/U	255W	0~+5W	8.42A	30.4V	8.80A	37.9V	15.67
PS260P-20/U	260W	0~+5W	8.53A	30.6V	8.90A	38.0V	15.98
PS265P-20/U	265W	0~+5W	8.61A	30.8V	9.00A	38.1V	16.29

## DIMENSIONS



## TEMPERATURE CHARACTERISTICS

<b>NOCT (Nominal Operation Cell Temperature)</b>	45°C $\pm$ 2°C
<b>Voltage Temperature Coefficient</b>	-0.31%/K
<b>Current Temperature Coefficient</b>	+0.07%/K
<b>Power Temperature Coefficient</b>	-0.40%/K

## WEAK LIGHT PERFORMANCE

Intensity [ $W/m^2$ ]	$I_{mpp}$	$V_{mpp}$
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.983
200	0.2	0.952

## PACKING CONFIGURATION

<b>Container</b>	40' HQ
<b>Pieces per pallet</b>	24
<b>Pallets per container</b>	28
<b>Pieces per container</b>	672

## PARTNER INFORMATION

Note: This datasheet is not legally binding, Phono Solar reserves the right to make specifications changes without notice. Further information can be found on our website: [www.phonosolar.com](http://www.phonosolar.com)

- Defined as standard deviation of thousands measurements. Absolute power values depend on the measuring system. They can differ by +/-5% from one measuring system to another.
- Measurement conditions under irradiance level of Standard Test Conditions(STC): 1000W/m<sup>2</sup>, Air mass 1.5 Spectrum, cell temperature of 25°C.