

ADVANCING THE DNA OF SOLAR CELLS

# HYPERION™ DIAMOND

High Performance Polycrystalline Module  
PS265-275P-20/U

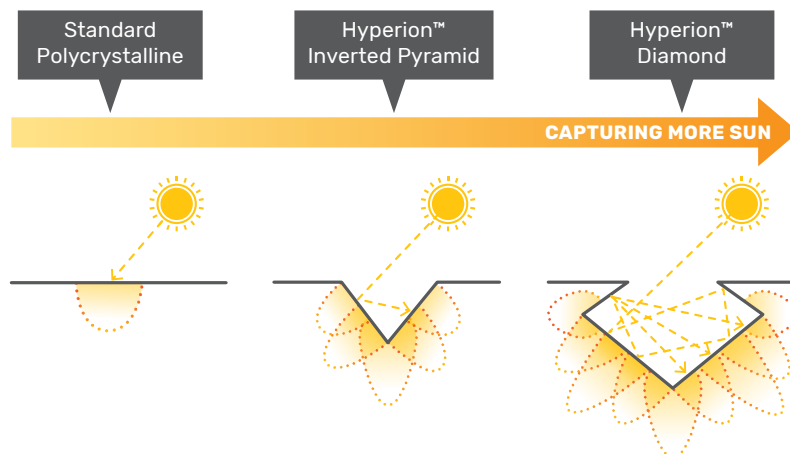


- ⬆ More energy yield
- ⬆ Superior Return On Investment

Hyperion™ by Phono Solar has changed the DNA of solar cells with Diamond Nano Structure Rebuilding (NSR) solution.



## EVOLUTION OF THE DNA OF SOLAR CELLS



### 4 C's OF HYPERION DIAMOND TECHNOLOGY

- 1. CELL** - Hyperion™ Nano Structure Rebuilding Solution NSR
- 2. CUT** - Latest diamond cell cutting technology
- 3. COLOUR** - Consistent dark blue cell colouration
- 4. CONSISTENCY** - Hyperion™ manufactured in Phono Solar's own 2.5GW cell facility

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)

1. In compliance with our warranty terms and conditions.
2. 12 year product warranty applies when product is registered at [phonosolar.com/care](http://phonosolar.com/care)
3. Table from [www.reneweconomy.com.au/how-long-will-your-solar-panels-last-and-how-well-will-they-perform-37163/](http://www.reneweconomy.com.au/how-long-will-your-solar-panels-last-and-how-well-will-they-perform-37163/)

### PHONO SOLAR AUSTRALIA

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### PHONO SALES

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“The bitterness of poor quality remains long after the sweetness of a low price is forgotten”

- Benjamin Franklin



## Don't gamble with profitability by choosing the wrong supplier

- > Solar is an investment. Secure your investment with high quality equipment and installation.
- > Phono Solar are quality focussed. Phono Solar engage independent 25 year longevity testing.

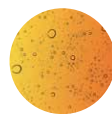
## Third party qualified-exceeding the standard!



THERMAL CYCLING



HUMIDITY -FREEZE



DAMP HEAT



● IEC standard

● Independent third party longevity testing



DYNAMIC MECHANICAL LOAD



POTENTIAL INDUCED DEGRADATION (PID) -1KV



## Focus on total cost of ownership - not only on your initial investment

- > Renewable energy is a lifetime relationship in lowering outgoings. Today solar and battery storage are becoming common in the Australian Market. In the near future solar and batteries will be a part of the smart homes and businesses of the future. Congratulations on reviewing renewable energy. Phono Solar would be honored to be on this 20+ year journey with you!

## Leading Cells Manufacturing Technology



12 year product warranty<sup>2</sup>  
25 year linear performance warranty<sup>1</sup>



Anti-PID



5 bus bar Hyperion™  
NSR solar cells





**Phono® Solar**

Diversified Business Sectors

**SINOMACH | SUMEC**  
SUMEC GROUP CORPORATION

## Reasons for choosing Phono Solar

- ✓ Australian office and warranty
- ✓ Diversified manufacturer, 40 years in business
- ✓ Independently verified quality testing, ensuring panel lasts 25 years
- ✓ BNEF Tier 1 Panel
- ✓ Northern Territory Approved. Panel will work in Australia's harshest conditions
- ✓ Australian engineering, design and manufacturer support
- ✓ Patent on advance solar cell technology - Hyperion™ Nano Structure Rebuilding (NSR)
- ✓ Diamond structure texturing method on the surface of polycrystalline wafer
- ✓ 5 bus bar on Hyperion™ NSR Solar Cell

## Outstanding results in multiple conditions<sup>3</sup>

Manufacturer	Thermal Cycling	Damp Heat	PID	Dynamic Load	Humidity-Freeze
Kyocera	Great	Great	Great	Great	Great
<b>Phono Solar</b>	<b>Great</b>	<b>Good</b>	<b>Great</b>	<b>Great</b>	<b>Good</b>
RECOM	Good	Good	Great	Great	unclear
Tenksolar	Good	Good	unclear	Great	Great
JA Solar	Good	unclear	Great	Good	unclear
CSUN	unclear	Good	Great	unclear	unclear
REC	unclear	Good	Great	unclear	unclear
Trina	Good	Good	unclear	Good	unclear
Jinko	unclear	Good	Good	unclear	Good
Hanwha	unclear	unclear	Great	Good	unclear
Q-Cells	unclear	unclear	Good	Good	Good
Yingli	unclear	unclear	unclear	Good	Good
ZNShine	unclear	unclear	Good	unclear	unclear

**VERDIA**

Approved  
Partner

**FORTUNE**  
Global 500

Owned by Fortune  
500 Global Company

**1**  
Tier  
Bloomberg  
Tier 1

Bloomberg  
Tier 1

**DNV-GL**

Top Performing  
Panel



Australian Office  
& Representation

# Hyperion™ Diamond

HIGH PERFORMANCE POLYCRYSTALLINE MODULE

**PS265-275P-20/U**  
(60 Cells)

## ELECTRICAL TYPICAL VALUES

Model	Rated Power (P <sub>mpp</sub> )	Tolerance	Rated Current (I <sub>mpp</sub> )	Rated Voltage (V <sub>mpp</sub> )	Short Circuit Current (I <sub>sc</sub> )	Open Circuit Voltage (V <sub>oc</sub> )	Module Efficiency (%)
PS265P-20/U	265W	0~+5W	8.50A	31.2V	9.0A	38.1V	16.29%
PS270P-20/U	270W	0~+5W	8.61A	31.4V	9.1A	38.2V	16.60%
PS275P-20/U	275W	0~+5W	8.72A	31.6V	9.2A	38.3V	16.90%

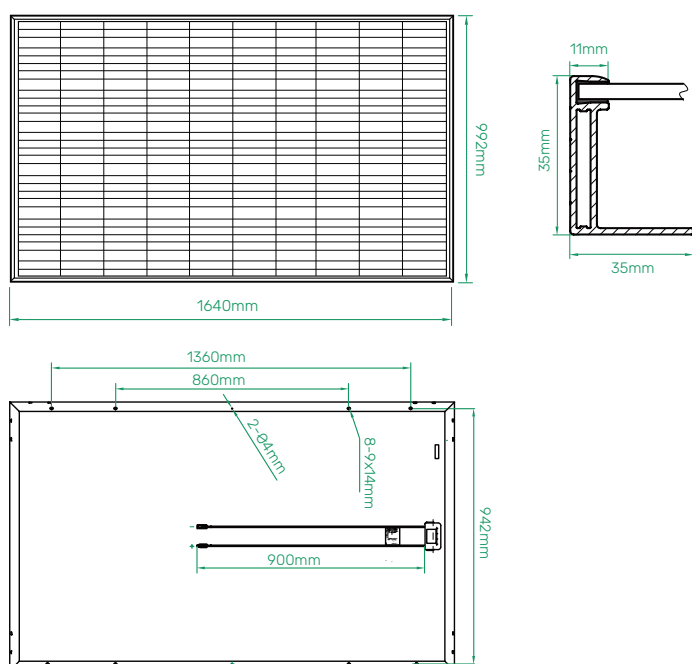
## MECHANICAL CHARACTERISTICS

Solar Cells	Nano-Tex Solar Cell – Polycrystalline 60 by 6 inch x 6 inch cells
Dimension	Length: 1640mm, Width: 992mm Height: 35mm
Weight	18kg
Front Glass	3.2mm toughened glass
Frame	Anodized aluminium alloy
Cable	4mm <sup>2</sup> (IEC), 900mm, MC4 Connectors
Junction Box	IP 68 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 (IEC61730)	A
Fire Rating (IEC61730)	C
Maximum System Voltage	DC 1000V(IEC)

## DIMENSIONS



1. In compliance with our warranty terms and conditions.
2. 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.

## TEMPERATURE CHARACTERISTICS

NOCT (Nominal Operation Cell Temperature)	45±2°C
Voltage Temperature Coefficient	-0.31%/°C
Current Temperature Coefficient	0.05%/°C
Power Temperature Coefficient	-0.41%/°C

## WEAK LIGHT PERFORMANCE

Intensity [W/m <sup>2</sup> ]	I <sub>mpp</sub>	V <sub>mpp</sub>
1000	1.0	1.000
800	0.8	0.996
600	0.6	0.990
400	0.4	0.982
200	0.2	0.951
100	0.1	0.923

## PACKING CONFIGURATION

Container	40' HQ	20' GP
Pieces per container	840	300

## BILL OF MATERIAL QUALITY CHECKLIST

- ✓ IP68 Junction Box    ✓ MC4 Connectors    ✓ Tick Greater yield/ROI    ✓ Hyperion™ NSR cells