Phono[®] Solar

THE ENGINEERS CHOICE

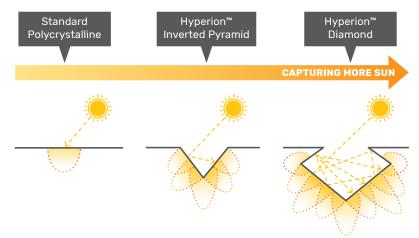
ADVANCING THE DNA OF SOLAR CELLS HYPERION DIAMOND High Performance Polycrystalline Module PS265-275P-20/U



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

THE PARTY

- 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**

1. In compliance with our warranty terms and conditions.

2. 12 year product warranty applies when product is registered at phonosolar.com/care

3. Table from www.reneweconomy.com.au/how-long-will-your-solar-panels-last-and-how-well-will-they-perform-37163/

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PHONO SALES

184 Bluestone Circuit, Seventeen Mile Rocks QLD 4073 TEL: 07 3160 5259 CONTACT: www.phonosolar.com **66** 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!





Initial Investment

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!

25 years reliability

Leading Cells Manufacturing Technology



12 year product warranty² 25 year linear performance warranty¹





5 bus bar Hyperion™ NSR solar cells



Phono[®] Solar

Diversified Business Sectors

SINOMACH SUMEC

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 conditions³

| Manufacturer | Thermal Cycling | Damp Heat | PID | Dynamic Load | Humidity-Freeze |
|--------------|-----------------|-----------|---------|--------------|-----------------|
| Kyocera | Great | Great | Great | Great | Great |
| Phono Solar | Great | Good | Great | Great | Good |
| 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 |













Hyperion[™] Diamond PS265-275P-20/U (60 Cells) HIGH PERFORMANCE POLYCRYSTALLINE MODULE

ELECTRICAL TYPICAL VALUES

| Model | Rated Power (Pmpp) | Tolerance | Rated Current (Impp) | Rated Voltage (Vmpp) | Short Circuit Current (Isc) | Open Circuit Voltage (Voc) | 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% |

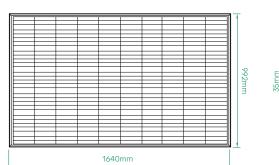
MECHANICAL CHARACTERISTICS

| 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 | 4mm2 (IEC), 900mm, MC4 Connectors | |
| Junction Box | IP 68 rated | |

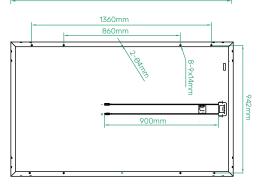
ABSOLUTE MAXIMUM RATING

| 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) | А | |
| Fire Rating (IEC61730) | С | |
| 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/m2, Air mass 1.5 Spectrum, cell temperature of 25°C.

BILL OF MATERIAL QUALITY CHECKLIST

✓ IP68 Junction Box

✓ MC4 Connectors

✓ Tick Greater yield/ROI

✓ Hyperion[™] NSR cells

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/m²] | Impp | Vmpp | |
| 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 |