



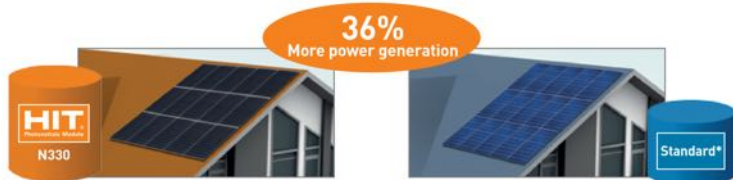
Panasonic solar technology

Panasonic photovoltaic modules HIT® feature an innovative hetero-junction cell structure made of mono-crystalline and amorphous silicon layers. Ultra-thin amorphous silicon layers prevent recombinations of electrons, keeping carrier loss to an absolute minimum. As a result, HIT® conversion efficiency ratings are among the highest available today.

19.7% module efficiency

Employing 96 cells in the same size footprint, N330 and N325 HIT® produce up to 36% more free electricity compared to conventional 60-cell panels.

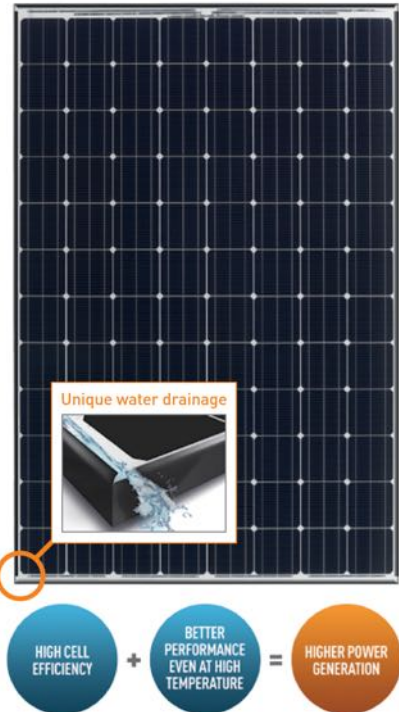
- More solar power output per square foot
- Fewer panels to install, faster installations
- Ideal for small roof areas
- Greater cost savings for homeowners over a 25-year lifecycle



HIT®: 9,167kWh/year [15pcs x 330W = 4.95kW] VS Standard*: 6,716kWh/year [15pcs x 260W = 3.90kW]

NOTE: Panasonic's simulation in CA, USA

*Conventional crystalline module



Quality you can trust

100% Panasonic HIT®

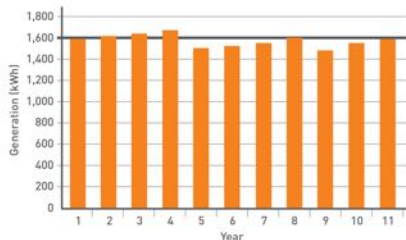
Starting over 40 years ago with the research and development of photovoltaic cells in 1975, Panasonic has been a solar pioneer since the beginning of the green revolution. In 1997, the HIT® set the industry standard for high conversion efficiency. Satisfied customers worldwide have come to trust and rely on Panasonic quality ever since.

Panasonic manufactured and guaranteed

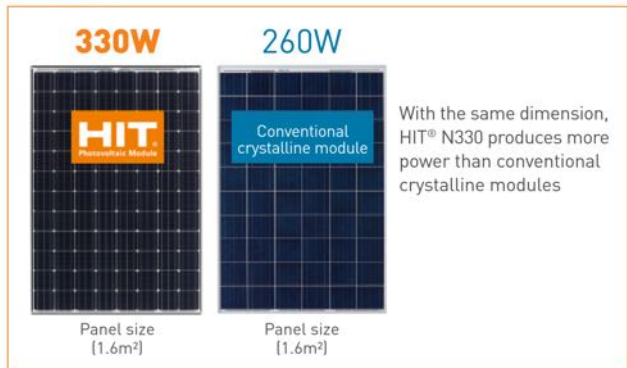
- 25-year power output warranty and 15-year workmanship warranty
- Vertically integrated in-house manufacturing of wafer, cell, and module
- State-of-the-art production facilities and manufacturing processes
- Industry's most stringent independent testing and quality control standards
- IEC and 20+ internal tests

Minimal field degradation

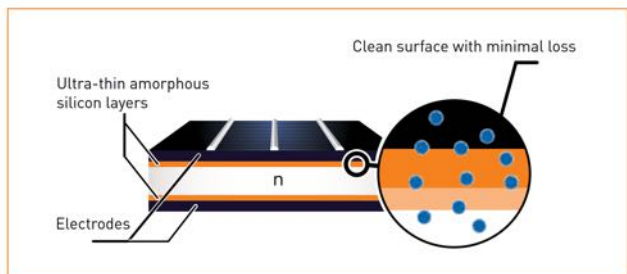
Actual recorded data proves reliable, stable performance over 11 years.



Simply powerful



Cell structure of HIT®





Electrical and Mechanical Characteristics | N330, N325

Electrical Specifications (TENTATIVE)

| Model | VBHN330SA16 | VBHN325SA16 |
|---------------------------------|-------------|-------------|
| Rated Power [Pmax] ¹ | 330W | 325W |
| Maximum Power Voltage [Vpm] | 58.0V | 57.6V |
| Maximum Power Current [Ipm] | 5.70A | 5.65A |
| Open Circuit Voltage [Voc] | 69.7V | 69.6V |
| Short Circuit Current [Isc] | 6.07A | 6.03A |
| Temperature Coefficient [Pmax] | -0.30%/°C | -0.30%/°C |
| Temperature Coefficient [Voc] | -0.174V/°C | -0.174V/°C |
| Temperature Coefficient [Isc] | 1.82mA/°C | 1.82mA/°C |
| NOCT | 44.0°C | 44.0°C |
| CEC PTS Rating | 305.9W | 301.2W |
| Cell Efficiency | 22.09% | 21.76% |
| Module Efficiency | 19.7% | 19.4% |
| Watts per Ft. ² | 18.3W | 18.0W |
| Maximum System Voltage | 600V | 600V |
| Series Fuse Rating | 15A | 15A |
| Warranted Tolerance [-/+] | +10%/-0%* | +10%/-0%* |

Mechanical Specifications (TENTATIVE)

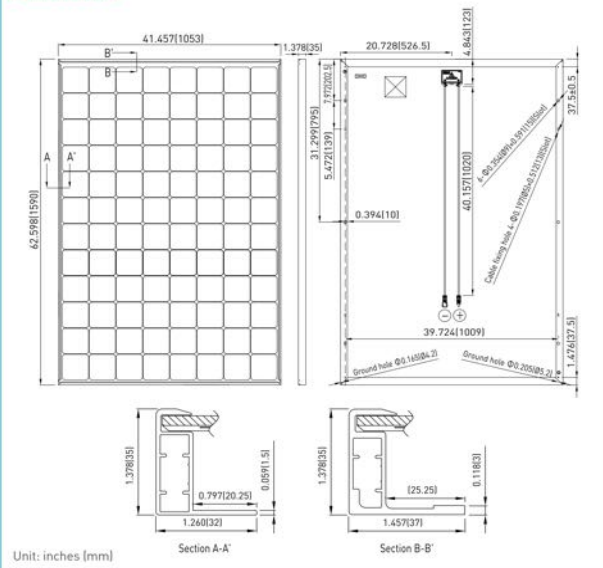
| Model | VBHN330SA16, VBHN325SA16 |
|-----------------------------|--------------------------------------------------------|
| Internal Bypass Diodes | 4 Bypass Diodes |
| Module Area | 18.02 Ft. ² [1.67m ²] |
| Weight | 40.81 Lbs. [18.5kg] |
| Dimensions LxWxH | 62.6x41.5x1.4 in. [1590x1053x35 mm] |
| Cable Length +Male/-Female | 40.2/40.2 in. [1020/1020 mm] |
| Cable Size / Type | No. 12 AWG / PV Cable |
| Connector Type ² | Multi-Contact [®] Type IV [MC4 [™]] |
| Static Wind / Snow Load | 50 PSF [2400 Pa] |
| Pallet Dimensions LxWxH | 63.7x42.2x5.5 in. [1618x1071x140 mm] |
| Quantity per Pallet | 40 pcs. /1719 Lbs. [780 kg] |
| Quantity per 40' Container | 560 pcs. |
| Quantity per 20' Container | 240 pcs. |

Operating Conditions & Safety Ratings (TENTATIVE)

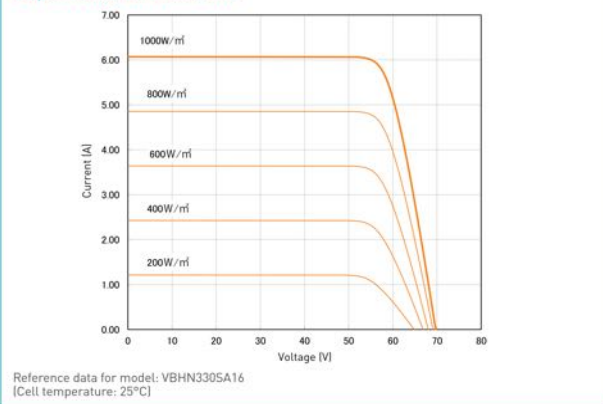
| Model | VBHN330SA16, VBHN325SA16 |
|--------------------------------|---------------------------------------------|
| Operating Temperature | -40°F to 185°F [-40°C to 85°C] |
| Hail Safety Impact Velocity | 1" hailstone (25mm) at 52 mph [23m/s] |
| Safety & Rating Certifications | UL 1703, cUL, CEC |
| UL 1703 Fire Classification | Type 2 |
| Limited Warranty | 15 Years Workmanship, 25 Years Power Output |

Note: Standard Test Conditions: Air mass 1.5; irradiance = 1000W/m²; cell temp. 25°C
¹Maximum power at delivery. For guarantee conditions, please check our guarantee document.
²STC: Cell temp. 25°C, AM1.5, 1000W/m²
³Safety locking clip [PV-SSH4] is not supplied with the module.
 Note: Specifications and information above may change without notice.

Dimensions



Dependence on Irradiance



CAUTION! Please read the installation manual carefully before using the products.
 Used electrical and electronic products must not be mixed with general household waste. For proper treatment, recovery and recycling of old products, please take them to applicable collection points in accordance with your national legislation.