

高效能

高效率



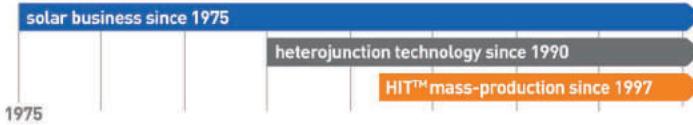
19.7% module efficiency

Enables reaching a higher output and lower specific installation and balance-of-system costs than with the same number of standard 60-cell modules.



100% Panasonic, 100% HIT™

Proudly featuring Panasonic's original invention, the heterojunction solar cell. With over 1 billion cells produced commercially over 18 years, 25 years after the breakthrough in the development and looking back to over 40 years of experience in solar, Panasonic really offers you a 25-year guarantee you can trust.



More energy, higher profit!

Helping you reach a higher final profit with your PV system!



Standard* : Conventional crystalline module with Pmax 260W



330W / 325W / 320W



QUALITY PROVEN 4 WAYS

1 Guaranteed by Panasonic

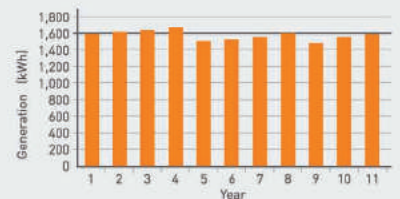
- IEC and over 20 Panasonic internal tests
- Vertically integrated own manufacturing (wafer, cell and module)



3 Less degradation on the field

11 years actual data prove a reliable and stable performance.

Installation: March 2004
Location: Gloucestershire, UK
Model: HIP-180BE
System size: 1.80 kWp
Tilt: 40 deg.
Direction: South-West



2 Record low claim rate

Less than 0.005% failure rate after more than 10 years experience in Europe (as of September 2015)

4 3rd Party verified

- Lifecycle testing (Long-Term-Sequential-Test) by TÜV Rheinland (tested on VBHN240SE10)
- PID-free (tested by Fraunhofer Institute)

HIT™ is a trademark of Panasonic Group.

Electrical data [at STC]

	VBHN330SJ47	VBHN325SJ47	VBHN320SJ47
Max. power (Pmax) [W]	330	325	320
Max. power voltage (Vmp) [V]	58.0	57.6	57.3
Max. power current (Imp) [A]	5.70	5.65	5.59
Open circuit voltage (Voc) [V]	69.7	69.6	69.4
Short circuit current (Isc) [A]	6.07	6.03	5.98
Max. over current rating [A]	15		
Power tolerance [%]	+10/-0 *		
Max. system voltage [V]	1000		
Solar Panel efficiency [%]	19.7	19.4	19.1

Note: Standard Test Conditions: Air mass 1.5; Irradiance = 1000W/m²; cell temp. 25°C
 * Maximum power at delivery. For guarantee conditions, please check our guarantee document.

Temperature characteristics

	VBHN330SJ47	VBHN325SJ47	VBHN320SJ47
Temperature (NOCT) [°C]	44.0	44.0	44.0
Temp. coefficient of Pmax [%/°C]	-0.29	-0.29	-0.29
Temp. coefficient of Voc [V/°C]	-0.174	-0.174	-0.174
Temp. coefficient of Isc [mA/°C]	1.82	1.81	1.79

At NOCT (Normal Operating Conditions)

	VBHN330SJ47	VBHN325SJ47	VBHN320SJ47
Max. power (Pmax) [W]	251.9	247.8	243.6
Max. power voltage (Vmp) [V]	56.3	55.9	55.5
Max. power current (Imp) [A]	4.54	4.50	4.45
Open circuit voltage (Voc) [V]	65.8	65.7	65.5
Short circuit current (Isc) [A]	4.89	4.86	4.82

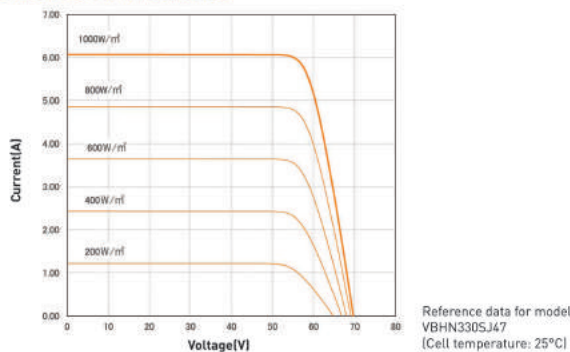
Note: Normal Operating Cell Temp.: Air mass 1.5; Irradiance = 800W/m²;
 Air temperature 20°C; wind speed 1 m/s

At low irradiance (20%)

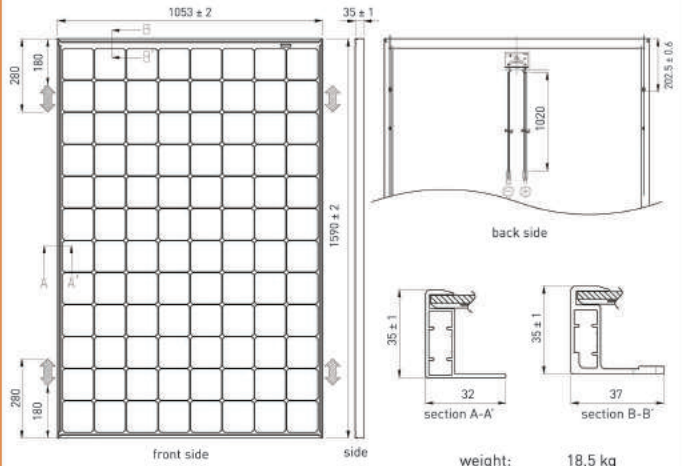
	VBHN330SJ47	VBHN325SJ47	VBHN320SJ47
Max. power (Pmax) [W]	63.5	62.3	61.0
Max. power voltage (Vmp) [V]	57.0	56.4	55.9
Max. power current (Imp) [A]	1.12	1.10	1.09
Open circuit voltage (Voc) [V]	65.6	65.3	64.9
Short circuit current (Isc) [A]	1.22	1.21	1.20

Note: Low irradiance: Air mass 1.5; Irradiance = 200W/m²; cell temp. = 25°C

Dependence on irradiance



Dimensions and weight



weight: 18,5 kg
 weight/m²: 11,3 kg/m²
 unit: mm
 Snow and Wind Load: 2400 Pa

Guarantee

Power output: 10 years (90% of Pmin), 25 years (80% of Pmin)
 Product workmanship: 10 years (based on guarantee document)

Materials

Cell material: 5 inch photovoltaic cells
 Glass material: AR coated tempered glass
 Frame materials: Black anodized aluminium
 Connectors type: SMK

Certificates



Please consult your local dealer for more information

10557台北市敦化南路一段21號7樓之4
 TEL : 886-2-2578-8660 FAX : 886-2-2578-8030
 7F-4, #21 Section-1, Tunhwa south road, Taipei Taiwan 10557
www.lawson.com.tw



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.

Panasonic Corporation Eco Solutions Company

<http://panasonic.net/ecosolutions/solar>

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