Photovoltaic module HIT® VBHN330SJ47/VBHN325SJ47

N 325



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



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 quarantee you can trust.



More energy, higher profit!

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







330W/325W

High Performance High Efficiency at High Temperatures



QUALITY PROVEN 4 WAYS

Guaranteed by Panasonic

• IEC and over 20 Panasonic internal tests

 Vertically integrated own manufacturing (wafer, cell and module)

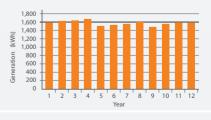


Less degradation on the field

12 years actual data prove a reliable and stable performance.

Location: Model: System size:

Installation: March 2004 Gloucestershire, UK HIP-180BE 1.80 kWp 40 deg. South-West



Record low claim rate

Less than 0.0035% failure rate after more than 10 years experience in Europe (as of January 2017)

3rd party verified

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

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Electrical data (at STC) VBHN330SJ47 VBHN325SJ47 Max. power (Pmax) [W] 330 325 Max. power voltage (Vmp) [V] 58.0 57,6 Max. power current (Imp) [A] 5.70 5,65 Open circuit voltage (Voc) [V] 69.7 69.6 Short circuit current (Isc) [A] 6.07 6,03 Max. over current rating [A] 15 15 Power tolerance [%] * +10/-0 +10/-0Max. system voltage [V] 1000 1000 Solar panel efficiency [%] 19.7 19,4

Note: Standard Test Conditions: Air mass 1.5; Irradiance = 1000W/m²; cell temp. 25°C

Temperature characteristics

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Temperature (NOCT) [°C]	44.0	44.0
Temp. coefficient of Pmax [%/°C]	-0.258	-0.258
Temp. coefficient of Voc [V/°C]	-0.164	-0.164
Temp. coefficient of Isc [mA/°C]	3.34	3.32

At NOCT (Normal Operating Conditions)

Max. power (Pmax) [W]	251.9	249.3
Max. power voltage (Vmp) [V]	56.3	56.1
Max. power current (Imp) [A]	4.54	4.52
Open circuit voltage (Voc) [V]	65.8	65.9
Short circuit current (Isc) [A]	4.89	4.88

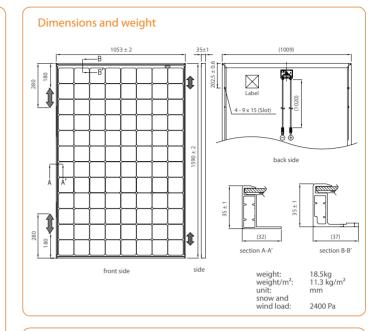
Note: Normal Operating Cell Temp.: Air mass 1.5; Irradiance = $800W/m^2$; Air temperature $20^{\circ}C$; wind speed 1 m/s

At low irradiance (20%)

Max. power (Pmax) [W]	63.5	62.3
Max. power voltage (Vmp) [V]	57.0	56.4
Max. power current (Imp) [A]	1.12	1.11
Open circuit voltage (Voc) [V]	65.6	65.3
Short circuit current (Isc) [A]	1.22	1.21

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

Dependence on irradiance 2.0 Reference data for model VBHN330SJ47 (Cell temperature: 25°C) 30 40 Voltage(V)



Guarantee

10 years (90% of Pmin) Power output: 25 years (80% of Pmin)

Product workmanship: 25 years (registration necessary on

> www.eu-solar.panasonic.net, otherwise 15 years apply based on guarantee document)

Materials

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

Certificates

CLASS UNO By TÜV Rheinland UNI 8457 UNI 9174 UNI 9177



IEC61215 IEC61730-1 IEC61730-2









Please consult your local dealer for more information

A 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



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