Panasonic

N 325K N 320K



Photovoltaic module HIT® KURO VBHN325KJ01/VBHN320KJ01

19.4% module efficiency

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



100% Panasonic, 100% HIT®

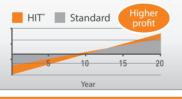
Proudly featuring Panasonic's original invention, the heterojunction solar cell. With over 1 billion cells produced commercially over 20 years, 25 years after the breakthrough in the development and looking back to over 40 years of experience in solar, Panasonic really offers you a 25-year guarantee you can trust.



More energy, higher profit!

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







325W/320W

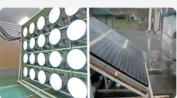
High Performance High Efficiency at High Temperatures

QUALITY PROVEN 4 WAYS

Guaranteed by Panasonic

• IEC and over 20 Panasonic internal tests

 Vertically integrated own manufacturing (wafer, cell and module)

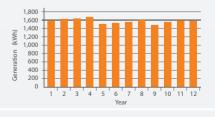


Less degradation on the field

12 years actual data prove a reliable and stable performance.

Installation: March 2004 Location: Model: System size:

Gloucestershire, UK HIP-180BE 1.80 kWp 40 deg. South-West



Record low claim rate

Less than 0.0040% failure rate after more than 10 years experience in Europe (as of January 2018)

3rd party verified

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

HIT° is a registered trademark of Panasonic Group.



Electrical and Mechanical Characteristics N325K / N320K

Electrical data (at STC) VBHN325KJ01 VBHN320KJ01 Max. power (Pmax) [W] 325 320 Max. power voltage (Vmp) [V] 59.2 58.7 Max. power current (Imp) [A] 5.50 5.46 Open circuit voltage (Voc) [V] 70.9 70.5 Short circuit current (Isc) [A] 5.94 5.89 Max. over current rating [A] 15 15 Power tolerance [%] * +10/0 +10/0 Max. system voltage [V] 1000 1000 Solar panel efficiency [%] 194 19.1

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

Temperature characteristics

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	3.34

At NOCT (Normal Operating Conditions)

Max. power (Pmax) [W]	248.9	245.1
Max. power voltage (Vmp) [V]	56.2	55.9
Max. power current (Imp) [A]	4.43	4.39
Open circuit voltage (Voc) [V]	67.1	66.7
Short circuit current (lsc) [A]	4.80	4.76

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%)

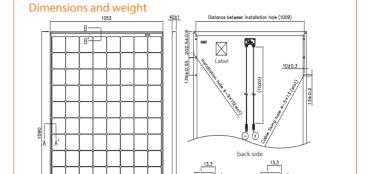
Dependence on irradiance

Max. power (Pmax) [W]	62.8	61.7
Max. power voltage (Vmp) [V]	57.6	57.2
Max. power current (Imp) [A]	1.09	1.08
Open circuit voltage (Voc) [V]	66.6	66.2
Short circuit current (lsc) [A]	1.19	1.18

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

5.00 4.00 3.00

Reference data for model VBHN325KJ01 (Cell temperature: 25°C)



side

Guarantee

Power output: 25 years linear

front side

(1st year 97 %, from 2nd year -0.45 %/year, in 25th year 86.2%)

(32)

Section A-A

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 Glass material: AR coated tempered glass Frame materials: Black anodized aluminium SMK

Connectors type:

Certificates







(32)

Section B-B

19 kg 5400 Pa

weight: unit: snow and wind load:

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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