# **Panasonic**

# Photovoltaic module HIT® VBHN245SJ25 / VBHN240SJ25

N 245 N 240



## Slim size, flexible installation

At only 0.8 m wide and 1.26m<sup>2</sup> area, this module enables maximum output per roof area on small and complicated roofs.



## 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!







245W / 240W

High Efficiency

High Performance at High Temperatures

## **QUALITY PROVEN 4 WAYS**

#### Guaranteed by Panasonic

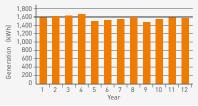
- IEC and over 20 Panasonic internal tests
- Vertically integrated own manufacturing (wafer, cell and module)



Less degradation on the field

12 years actual data prove a reliable and stable performance.

Installation: March 2004 Location: Glocestershire, UK Model: HIP-180BE System size: 1.80 kWp



#### Record low claim rate

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

### 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 N245, N240



Electrical data (at STC)	VBHN245SJ25	VBHN240SJ25	
Max. power (Pmax) [W]	245	240	
Max. power voltage (Vmp) [V]	44.3	43.6	
Max. power current (Imp) [A]	5.54	5.51	
Open circuit voltage (Voc) [V]	53.0	52.4	
Short circuit current (Isc) [A]	5.86	5.85	
Max. over current rating [A]	1	15	
Power tolerance [%] *	+10	+10/-0	
Max. system voltage [V]	10	1000	
Solar Panel efficiency [%]	19.4	19.0	
Note: Standard Test Conditions: Air mass 1 5: Irradiance - 1000W/m²: cell temp. 25°C			

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

Temperature (NOCT) [°C]	44.0	44.0
Temp. coefficient of Pmax [%/°C]	-0.29	-0.29
Temp. coefficient of Voc [V/°C ]	-0.133	-0.131
Temp. coefficient of lsc [mA/°C]	1.76	1.76

#### At NOCT (Normal Operating Conditions)

Max. power (Pmax) [W]	187.4	183.2
Max. power voltage (Vmp) [V]	42.5	41.7
Max. power current (Imp) [A]	4.41	4.39
Open circuit voltage (Voc) [V]	50.3	49.7
Short circuit current (Isc) [A]	4.71	4.71

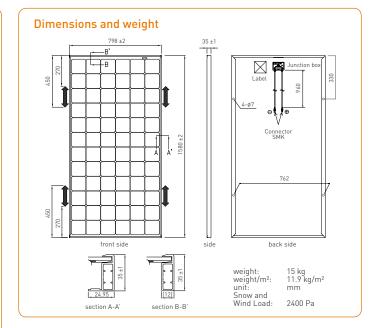
Note: Normal Operating Cell Temp.: Air mass 1.5; Irradiance =  $800W/m^2$ ; Air temperature 20°C; wind speed 1 m/s

#### At low irradiance (20%)

Max. power (Pmax) [W]	47.0	45.9
Max. power voltage (Vmp) [V]	43.2	42.2
Max. power current (Imp) [A]	1.09	1.09
Open circuit voltage (Voc) [V]	49.6	49.0
Short circuit current (Isc) [A]	1.17	1.17

Note: Low irradiance: Air mass 1.5; Irradiance =  $200W/m^2$ ; cell temp. =  $25^{\circ}C$ 

# Dependence on irradiance 1000W/m -800W/m 5.00 600W/m 400W/m 200W/m Reference data for model VBHN245SJ25 (Cell temperature: 25°C) Voltage(V)



#### Guarantee

Power output: 10 years (90% of Pmin)

25 years (80% of Pmin)

Product workmanship: 15 years (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







IEC61730-1 IEC61730-2





Please consult your local dealer for more information

🗥 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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