Panasonic

N 285



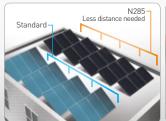
Photovoltaic module HIT® VBHN285SJ40

Powerful

Industry top-level output for a PV module < 1.6 m²

Compact size

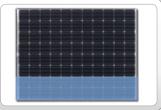
Best fit in portrait due to shorter module length. Less space needed between module rows on flat roofs





Improved shading performance

Featuring 4 shading zones instead of 3



Unique water drainage

on each corner for an improved self-cleaning





285 W

High Efficiency

High Performance at High Temperatures

High Power Generation

QUALITY PROVEN 4 WAYS

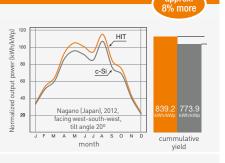
Guaranteed by Panasonic

- IEC and over 20 Panasonic internal tests
- 40 years experience, longer than our 25 years Guarantee



Higher yield on field test

8% more yield than standard c-Si solar modules



Record low claim rate

0.0038% failure rate after more than 10 years experience in Europe (as of Jan.2015)

3rd Party verified

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

HIT® is a registered trademark of Panasonic Group.



Photovoltaic module HIT®

| Electrical data (at STC) | VBHN285SJ40 |
|----------------------------------|-------------|
| Max. power (Pmax) [W] | 285 |
| Voltage at Max. Power (Vmp)(V) | 52.0 |
| Current at Max. Power (Imp)(A) | 5.49 |
| Open circuit voltage (Voc) [V] | 63.5 |
| Short circuit current (Isc) [A] | 5.91 |
| Max. over current rating [A] | 15 |
| Production tolerance power [%] | +10/-5 * |
| Max. system voltage [V] | 1000 |
| Max. amount of module in series. | 13pcs |
| | |

Note: Standard Test Conditions: Air mass 1.5; Irradiance = 1000W/m²; cell temp. 25°C * All modules measured by Panasonic facilities have an output with positive tolerance.

Temperature characteristics

| Temperature (NOCT) [°C] | 44.0 |
|----------------------------------|--------|
| Temp. coefficient of Pmax [%/°C] | -0.29 |
| Temp. coefficient of Voc [V/°C] | -0.159 |
| Temp. coefficient of lsc [mA/°C] | 1.77 |

At NOCT (Normal Operating Conditions)

| Max. power (Pmax) [W] | 223 |
|---------------------------------|------|
| Max. power voltage (Vmp) [V] | 48.5 |
| Max. power current (Imp) [A] | 4.65 |
| Open circuit voltage (Voc) [V] | 55.9 |
| Short circuit current (Isc) [A] | 4.75 |

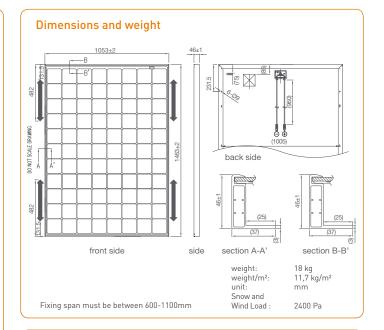
Note: Normal Operating Cell Temp.: Air mass 1.5; Irradiance = 800W/m²; Air temperature 20°C: wind speed 1 m/s

At low irradiance (20%)

| Max. power (Pmax) [W] | 53.6 |
|---------------------------------|------|
| Max. power voltage (Vmp) [V] | 47.1 |
| Max. power current (Imp) [A] | 1.14 |
| Open circuit voltage (Voc) [V] | 59.1 |
| Short circuit current (Isc) [A] | 1.18 |

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

Dependence on irradiance Total and the second of the seco



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





IEC61215 IEC61730-1 IEC61730-2

Electrical Protectio n

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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





