Panasonic

Photovoltaic module HIT®

HIT-N245
HIT-N240

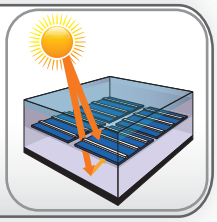
EN

Water drainage frame

- Rain water is drained off the module surface.
- This avoids not only water accumulation, but also water stains after drying.
- Even in low-angle installations, water drainage corners keep the module clean.

Power from both sides

- HIT® generates solar electricity simultaneously on the front and on the back side.
- This additional amount of light from the back side is combined with the light taken up by the front side of the module.



Vertically integrated factory

- Efficient production flow improves product quality as entire process from wafer to cell is done at the same location.
- No risk of damage of individual components during transportation between factories.

19.4%*
194 W/m²

* For N245

Technology of HIT®

Our HIT® is made of a thin monocrystalline silicon wafer surrounded by ultra-thin amorphous silicon layers. This product offers the industry's leading performance and value, using state-of-the-art manufacturing techniques. The development of the HIT® was supported in part by the New Energy and Industrial Technology Development Organization (NEDO).

Quality

Panasonic is truly committed to quality since it began developing and manufacturing solar PV technology in 1975. Our long track record is supported by our claim-rate of only 0.0038% among all modules sold in Europe (as of August 2014).

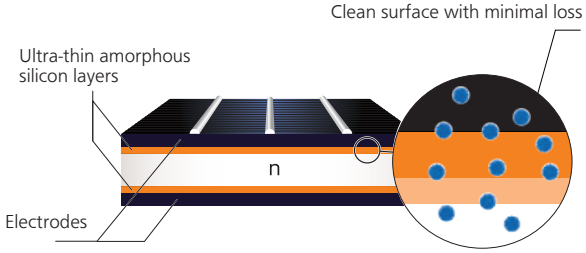
Special features

Our solar modules are 100% emission free, have no moving parts and produce no noise. The dimensions of the modules enable a space saving installation and the achievement of maximum output power possible on a given roof area.

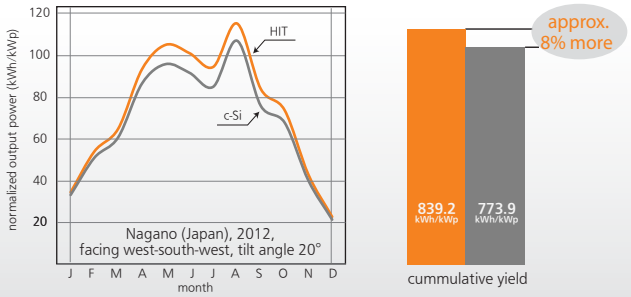
High performance at high temperatures

With its very low temperature coefficient of only -0.29%/°C, our solar cell can maintain a higher efficiency than a con- ventional crystalline silicon solar cell, even at high temperatures.

Cell structure of HIT®



Yield comparison



HIT®
Photovoltaic Module

"HIT" is a registered trademark of Panasonic Group.

Model	Cell efficiency	Module efficiency	Output/m²
N245	22.0%	19.4%	194 W/m²
N240	21.6%	19.0%	190 W/m²

Panasonic Eco Solutions Europe
Panasonic Electric Works Europe AG
www.eu-solar.panasonic.net

HIT® Photovoltaic Module

Electrical and Mechanical Characteristics
N245, N240

EN

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]	15	
Production tolerance power [%]	+10/-5*	
Max. system voltage [V]	1000	

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	44.0
Temp. coefficient of Pmax [%/°C]	-0.29	-0.29
Temp. coefficient of Voc [V/°C]	-0.133	-0.131
Temp. coefficient of Isc [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

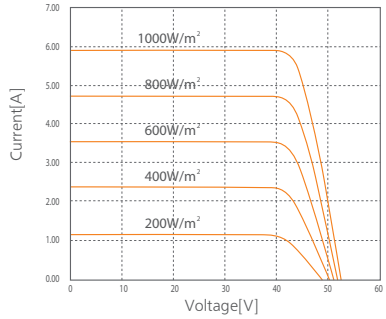
Note: Nominal Operating Cell Temp.: Air mass 1.5; Irradiance = 800W/m²;
Air temperature 20°C; wind speed 1 m/s

At low irradiance (20%)

Max. power (Pmax) [W]	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

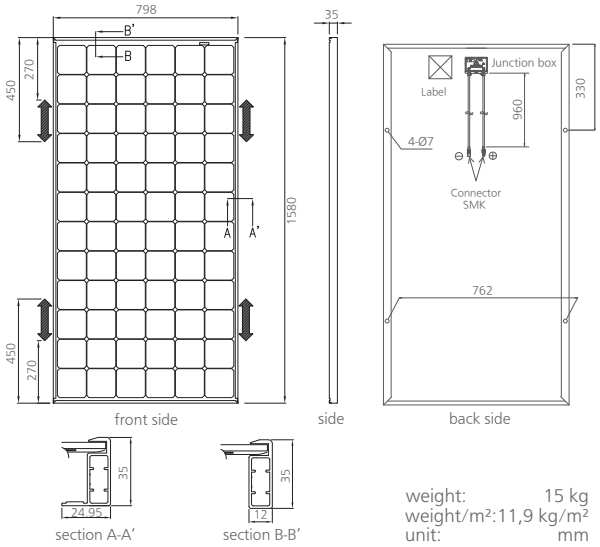
Note: Low irradiance: Air mass 1.5; Irradiance = 200W/m²; cell temp. = 25°C

Dependence on irradiance



Reference data for model VBHN245SJ25 (Cell temperature: 25°C)

Dimensions and weight



weight: 15 kg
weight/m²: 11,9 kg/m²
unit: mm

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

JET www.jet.or.jp

RoHS COMPLIANT

APPROVED PRODUCT MCS
Certificate No. MCS PV0034
Photovoltaic System

IEC61215
IEC61730-1
IEC61730-2

Electrical Protection Class II

CE

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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10/2014