

## HIT photovoltaic module

## HIP-210NKHB5 HIP-205NKHB5

The SANYO HIT (Heterojunction with Intrinsic Thin layer) solar cell is made of a thin mono crystalline silicon wafer surrounded by ultra-thin amorphous silicon layers. This product provides the industry's leading performance and value using state-of-the-art manufacturing techniques.



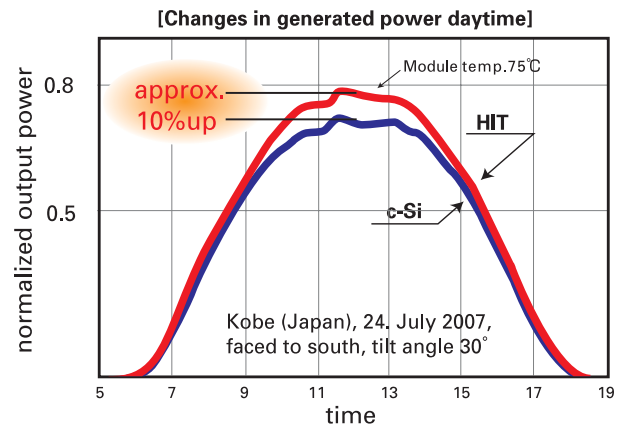
### Benefit in Terms of Performance

The HIT cell and module have very high conversion efficiency in mass production.

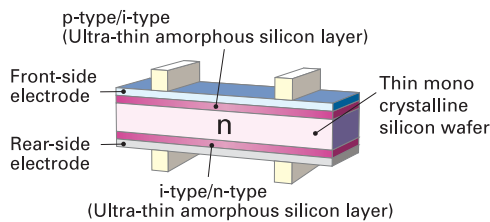
Model	Cell Efficiency	Module Efficiency
HIP-210NKHB5	18.9%	16.4%
HIP-205NKHB5	18.4%	16.0%

### High performance at high temperatures

Even at high temperatures, the HIT solar cell can maintain higher efficiency than a conventional crystalline silicon solar cell.



### HIT Solar Cell Structure



Development of HIT solar cell was supported in part by the New Energy and Industrial Technology Development Organization (NEDO).

### Environmentally-Friendly Solar Cell More Clean Energy

HIT can generate more clean Energy than other conventional crystalline solar cells.

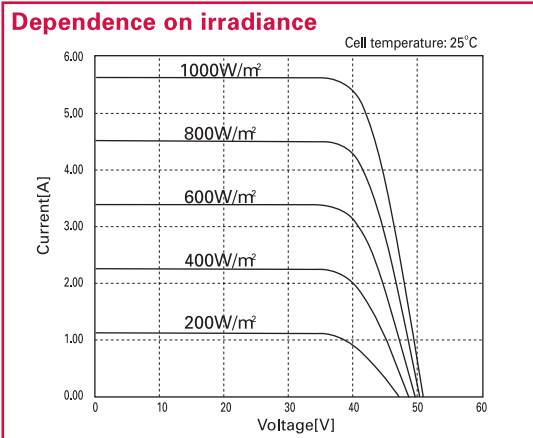
### Special Features

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

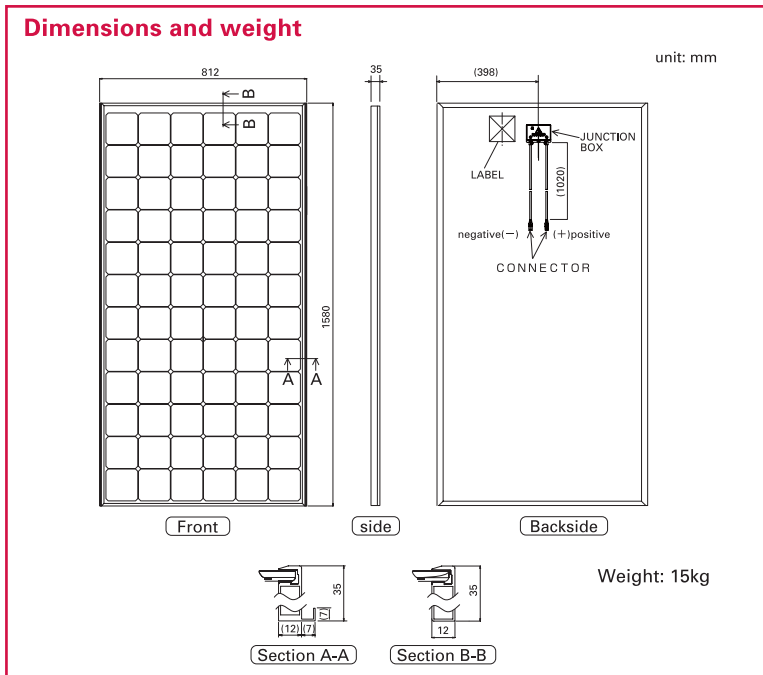
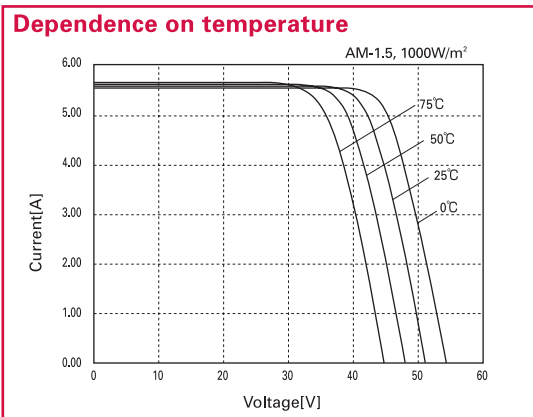
Models HIP-xxxNKHB5			
Electrical data		210	205
Maximum power (Pmax)	[W]	210	205
Max. power voltage (Vmp)	[V]	41.3	40.7
Max. power current (Imp)	[A]	5.09	5.05
Open circuit voltage (Voc)	[V]	50.9	50.3
Short circuit current (Isc)	[A]	5.57	5.54
Warranted minimum power (Pmin)	[W]	199.5	194.75
Maximum over current rating	[A]	15	
Output power tolerance	[%]	+10/-5	
Maximum system voltage	[V]	600	
Temperature coefficient of Pmax	[%/°C]	-0.30	
	Voc [V/°C]	-0.127	-0.126
	Isc [mA/°C]	1.67	1.66

Note 1: Standard Test Conditions: Air mass 1.5, Irradiance = 1000W/m<sup>2</sup>, Cell temperature = 25°C  
 Note 2: The values in the above table are nominal

Reference data for model HIP-210NKHB5



Reference data for model HIP-210NKHB5



### Certificates

Please consult your local dealer for more information.

### Warranty

Power output: 20 years (80% of Pmin)  
 Product workmanship: 5 years  
 (Based on contract terms)

Certificate Number: PV05-53203-1012

An above number is a certification number by JET.  
 JET: Japan Electrical Safety & Environment Technology Laboratories

**CAUTION!** Please read the operating instructions carefully before using the products.

Due to our policy of continual improvement the products covered by this brochure may be changed without notice.

[ASIA]  
**SANYO Electric Co., Ltd.**  
 International Sales & Marketing H.Q.  
 Tel.81-6-6994-7359 Fax.81-6-6994-7083



**SANYO Electric Co., Ltd.**  
 Solar Division

http://www.sanyo.com/solar  
 email: homepage\_solar@sanyo.com