

# HIT photovoltaic module

## HIP-210NKHE1 HIP-205NKHE1

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.



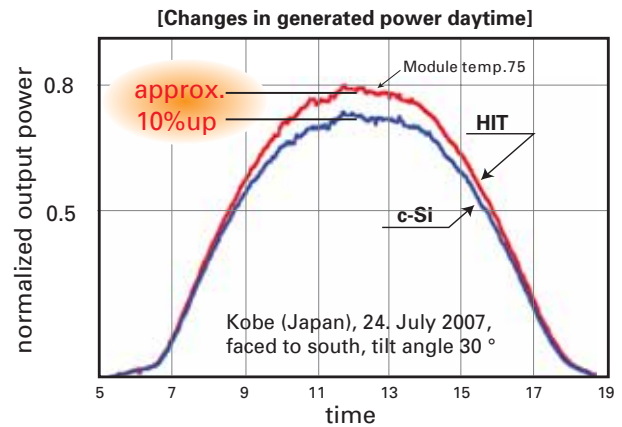
### Benefit in Terms of Performance

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

Model	Cell Efficiency	Module Efficiency
HIP-210NKHE1	18.9%	16.7%
HIP-205NKHE1	18.4%	16.3%

### High performance at high temperatures

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



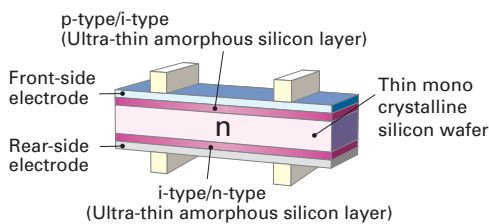
### Environmentally-Friendly Solar Cell More Clean Energy

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.

### HIT Solar Cell Structure

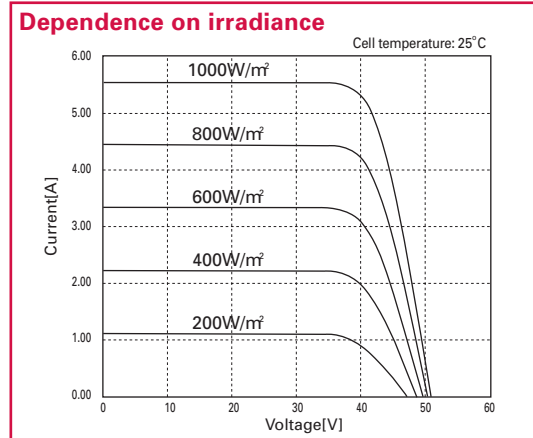


Development of HIT solar cell was supported in part by the New Energy and Industrial Technology Development Organization (NEDO).

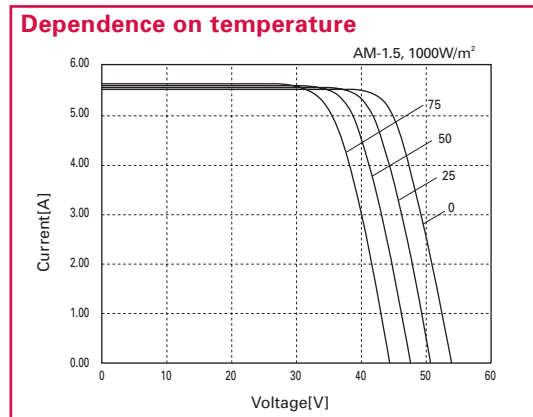
Models HIP-xxxNKHE1			
Electrical data		210	205
Maximum power (Pmax)	[W]	210	205
Max. power voltage (Vmp)	[V]	41.3	40.7
Max. power current (Imp)	[A]	5.09	5.05
Open circuit voltage (Voc)	[V]	50.9	50.3
Short circuit current (Isc)	[A]	5.57	5.54
Warranted minimum power (Pmin)	[W]	199.5	194.8
Maximum over current rating	[A]	15	
Output power tolerance	[%]	+10/-5	
Maximum system voltage	[V]	1000	
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

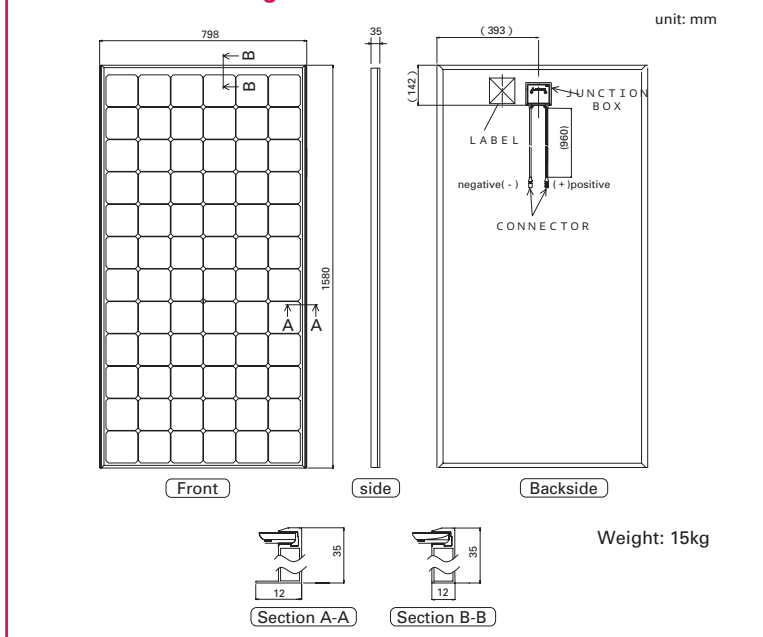
Reference data for model HIP-210NKHE1



Reference data for model HIP-210NKHE1



### Dimensions and weight



### Warranty

Power output: 20 years (80% of minimum output power)  
 Product workmanship: 2 years  
 (Based on contract terms)

Please consult your local dealer for more information.

**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.

SANYO Component Europe GmbH  
 Clean Energy Division



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