

HIT photovoltaic module

HIP-215NKHE1

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

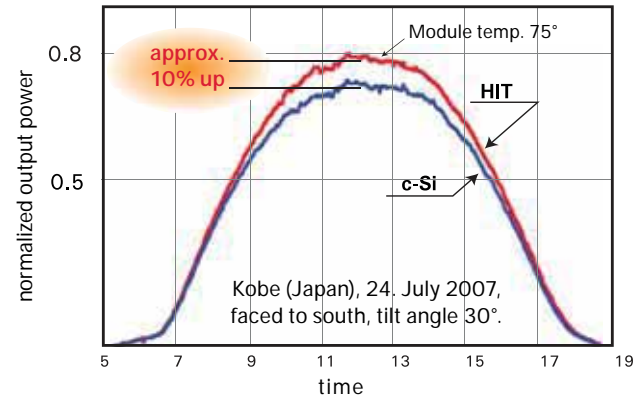
The HIT cell and module have very high conversion efficiency in mass production.

Model	Cell Efficiency	Module Efficiency
HIP-215NKHE1	19.3%	17.1%
HIP-210NKHE1	18.9%	16.7%
HIP-205NKHE1	18.4%	16.3%

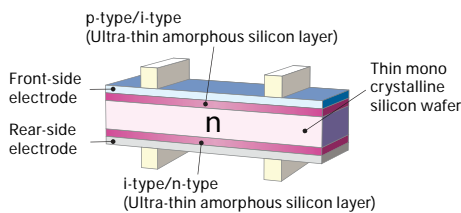
High performance at high temperatures

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

[Changes in generated power daytime]



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.

Electrical and Mechanical Characteristics

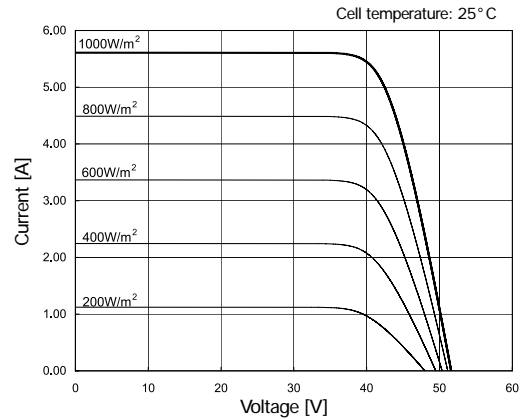
HIP-215NKHE1, HIP-210NKHE1, HIP-205NKHE1

Models HIP-xxxNKHE1			
Electrical data	215	210	205
Maximum power (Pmax) [W]	215	210	205
Max. power voltage (Vpm) [V]	42.0	41.3	40.7
Max. power current (Ipm) [A]	5.13	5.09	5.05
Open circuit voltage (Voc) [V]	51.6	50.9	50.3
Short circuit current (Isc) [A]	5.61	5.57	5.54
Warranted min. power (Pmin) [W]	204.3	199.5	194.8
Maximum over current rating [A]	15		
Output power tolerance [%]	+ 10/-5		
Max. system voltage [Vdc]	1000		
Temperature coeff. of Pmax [%/°C]	-0.30		
Temperature coeff. of Voc [V/°C]	-0.129	-0.127	-0.126
Temperature coeff. of Isc [mA/°C]	1.68	1.67	1.66

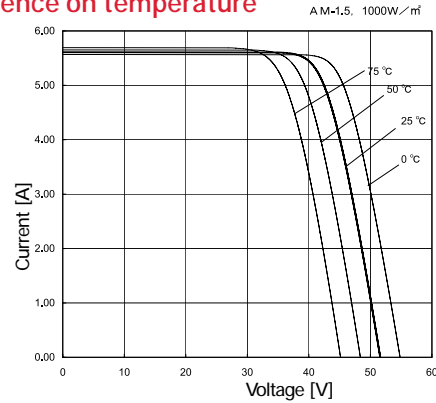
Note 1: Standard test conditions: Air mass 1.5, Irradiance = 1000 W/m², Cell temperature = 25 °C.
 Note 2: The values in the above table are nominal.

Reference data for model HIP-215NKHE1

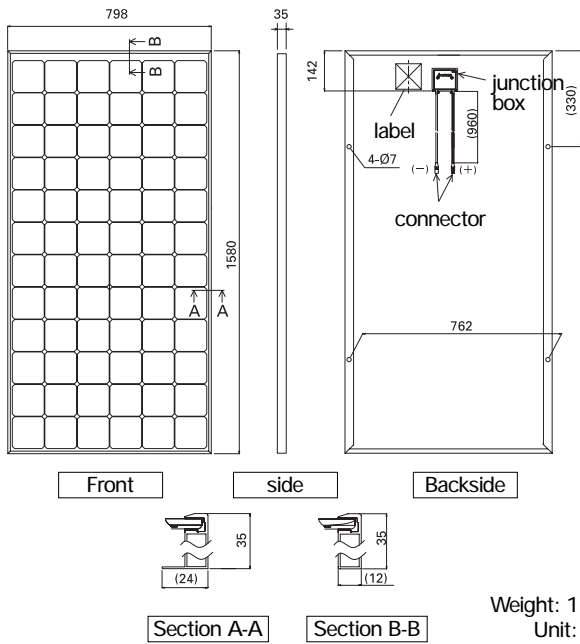
Dependence on irradiance



Dependence on temperature



Dimensions and weight



Certificates

IEC 61730 IEC 61215



Please consult your local dealer for more information.

Guarantee

Power output: 20 years (80% of minimum output power)

Product workmanship: 2 years

(Based on contract terms)

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.

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