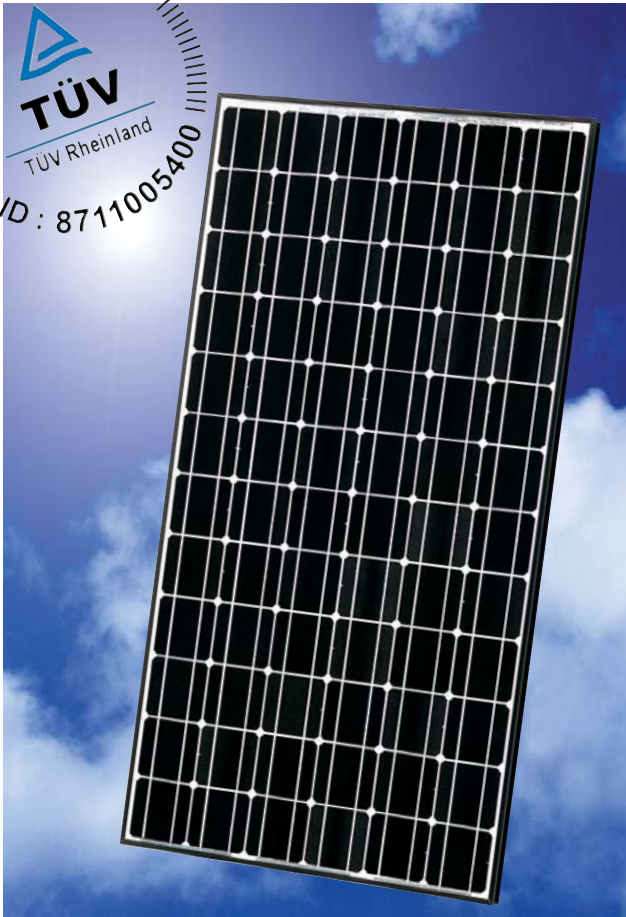


# HIT PHOTOVOLTAIC MODULE HIP-200NHE1



The SANYO HIT (**H**eterojunction with **I**ntrinsic **T**hin 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.



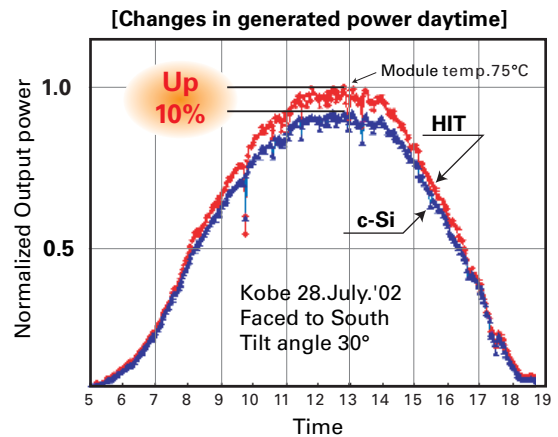
## Benefit in Terms of Performance

**High efficiency cell: 17.8%, Module: 16.0%**

The HIT cell and module have the world's highest level of conversion efficiency in mass production.

## High performance at high temperatures

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



## Environmental Friendly Solar Cell

### More Clean Energy

HIT can generate more annual power output per unit area than other conventional crystalline silicon solar cells.

## Special Features

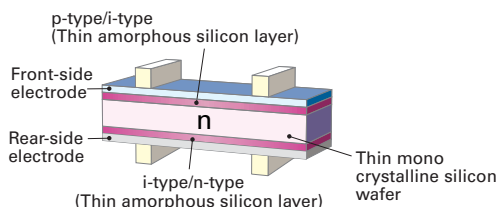
SANYO HIT solar modules are 100% emission free, have no moving parts and produce no noise. The dimensions of the HIT modules allow space-saving installation and achievement of maximum output power possible on given roof area.

## Benefit in Terms of Quality

**High quality in accordance with ISO 9001 and 14001 standards**

HIT solar cell and modules are subject to strict inspections and measurements to ensure compliance with electrical, mechanical and visual criteria.

## HIT Solar Cell Structure



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

# Electrical and Mechanical Characteristics

## HIP-200NHE1

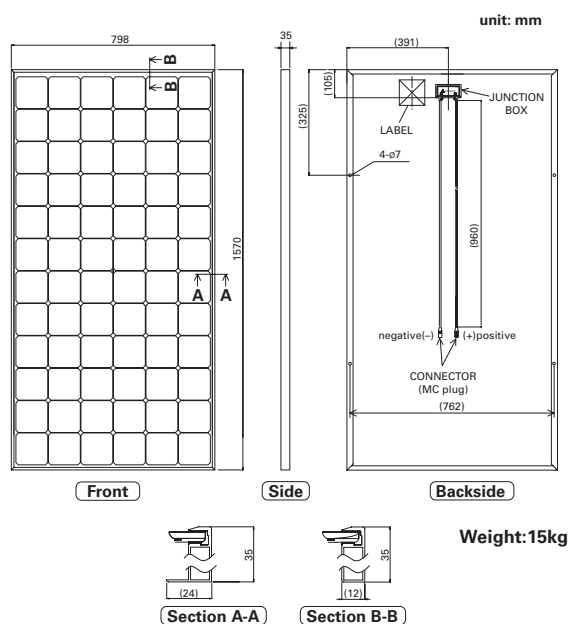
### Electrical data

Maximum power (Pmax)	[W]	200
Max. power voltage (Vpm)	[V]	40.0
Max. power current (Ipm)	[A]	5.00
Open circuit voltage (Voc)	[V]	49.6
Short circuit current (Isc)	[A]	5.50
Warranted minimum power (Pmin)	[W]	190.0
Output tolerance	[%]	+10/-5
Maximum system voltage	[Vdc]	760
Temperature coefficient of Pmax	[%/°C]	- 0.33
Voc	[V/°C]	- 0.129
Isc	[mA/°C]	1.65

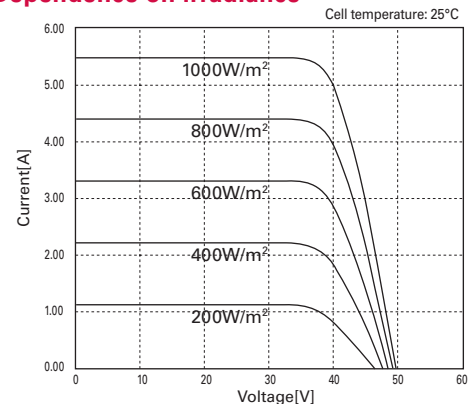
Note 1: Standard test conditions: Air mass 1.5, Irradiance = 1000W/m<sup>2</sup>, Cell temperature = 25°C

Note 2: The values in the above table are nominal.

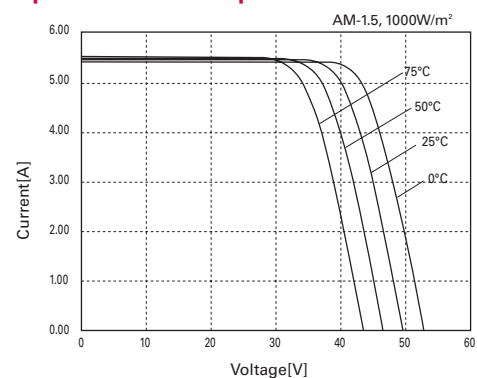
### Dimensions and weight



### Dependence on irradiance



### Dependence on temperature



### Certificates



• Qualified IEC 61215  
• Safety tested  
• TÜV-Spec 9512 572 9  
• Periodic inspection



Please consult your local dealer for more information.

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

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

SANYO Component Europe GmbH  
Clean Energy Division

Stahlgruberring 4  
81829 Munich, Germany  
TEL: +49-(0)89-46 00 95-0  
FAX: +49-(0)89-46 00 95-170  
<http://www.sanyo-energy-europe.com>  
email: info.solar@sanyo-component.com

SANYO Component Europe GmbH  
U.K. Branch, SANYO House

18 Colonial Way,  
Watford, WD 24 4PT, United Kingdom  
TEL: +44-(0)1923-24 63 63  
FAX: +44-(0)1923-47 74 79  
<http://www.sanyo-component.com>  
email: info.solar@sanyo-component.com

SANYO Electric Co., Ltd.  
Component Group, Clean Energy Company

5 - 5, Keihan-Hondori 2, Moriguchi,  
Osaka 570-8677, Japan  
TEL: +81-(0)6-69 94-7282  
FAX: +81-(0)6-69 94-7289  
[http://www.sanyo.co.jp/clean/solar/hit\\_e/index\\_e.html](http://www.sanyo.co.jp/clean/solar/hit_e/index_e.html)  
email: sola1011115@sanyo.co.jp