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UNAPPROVED

HIT<sup>®</sup> photovoltaic module

SANYO

✓ HIT-H250E01  
HIT-H245E01R&D  
technology  
adaptation

- Reduction of carrier recombination loss**
- Preserving as much of the generated electricity as possible
  - Realizing even higher voltage

## Use resources effectively

- By cutting the wafer almost round the HD cell produces less waste of material
- Compact module size but highest electric generation

HD  
cell  
designAnti-  
reflection  
glass

- Reduction of optical loss**
- Enabling as much incoming sunlight as possible to reach the electrical generating layer (crystalline silicon)
  - Realizing even higher current

18.0%  
180 W/m<sup>2</sup>

\* For HIT-H250E01

## HIT cell technology

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.

## Special Features

## More Clean Energy

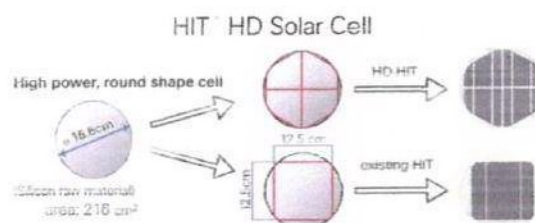
HIT can generate more clean Energy than other conventional crystalline solar cells.

## Environmentally-Friendly Solar Cell

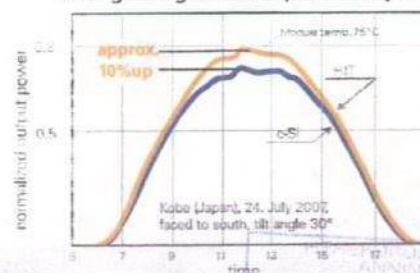
SANYO HIT solar modules are 100% emission free, have no moving parts and produce no noise. The dimensions of the HIT modules allow space-saving installation and achievement of maximum output power possible on given roof area.

## 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



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

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# HIT<sup>®</sup> HD

Photovoltaic Module

HIT is a registered trademark of SANYO Electric Co., Ltd. The name "HIT" comes from "Heterojunction with intrinsic Thin-layer" which is an original technology of SANYO Electric Co., Ltd.

Model	Cell Efficiency	Module Efficiency	Output/m <sup>2</sup>
HIT-H250E01	20.8%	18.0%	180 W/m <sup>2</sup>
HIT-H245E01	20.4%	17.7%	177 W/m <sup>2</sup>

www.sanyo-solar.eu

SANYO Component Europe GmbH

### Electrical data (at STC)

Models HIT-Hxxx01

	250	245
Maximum power (P <sub>max</sub> ) [W]	250	245
Max. power voltage (V <sub>mp</sub> ) [V]	34.9	34.4
Max. power current (I <sub>mp</sub> ) [A]	7.18	7.14
Open circuit voltage (V <sub>oc</sub> ) [V]	43.1	42.7
Short circuit current (I <sub>sc</sub> ) [A]	7.74	7.73
Maximum over current rating [A]	15	
Output power tolerance [%]	+10/-5*	
Maximum system voltage [V]	1000	

Note: Standard Test Conditions: Air mass 1.5, Irradiance = 1000W/m<sup>2</sup>, cell temperature = 25°C

### Temperature characteristics

	250	245
Temperature (NOCT) [°C]	46.0	46.0
Temperature coefficient of P <sub>max</sub> [%/°C]	-0.30	-0.30
Temperature coefficient of V <sub>oc</sub> [V/°C]	-0.108	-0.107
Temperature coefficient of I <sub>sc</sub> [mA/°C]	2.32	2.32

### At NOCT

	250	245
Maximum power (P <sub>max</sub> ) [W]	188.9	185.4
Max. power voltage (V <sub>mp</sub> ) [V]	32.8	32.4
Max. power current (I <sub>mp</sub> ) [A]	5.76	5.73
Open circuit voltage (V <sub>oc</sub> ) [V]	40.5	40.1
Short circuit current (I <sub>sc</sub> ) [A]	6.23	6.23

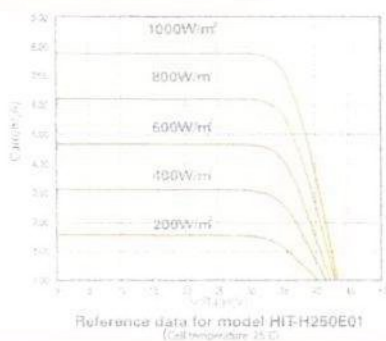
Note: Nominal Operating Cell Temperature: Air mass 1.5 spectrum, Irradiance = 900W/m<sup>2</sup>, Air temperature = 20°C, wind speed 1 m/s

### At low irradiance

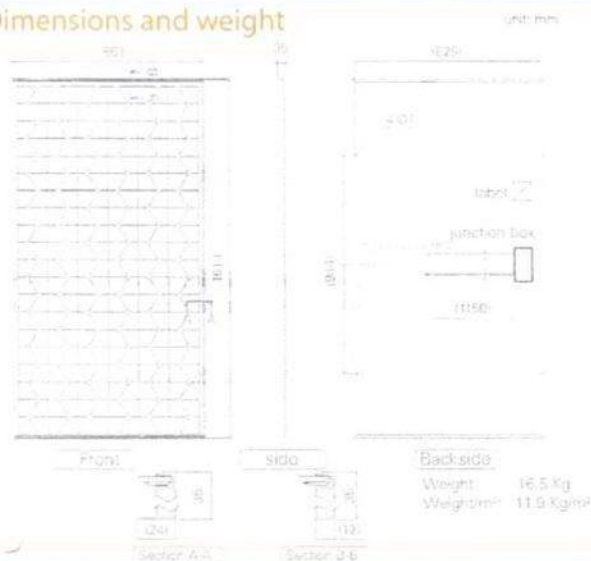
	250	245
Maximum power (P <sub>max</sub> ) [W]	48.8	47.7
Max. power voltage (V <sub>mp</sub> ) [V]	34.1	33.6
Max. power current (I <sub>mp</sub> ) [A]	1.43	1.43
Open circuit voltage (V <sub>oc</sub> ) [V]	40.1	39.7
Short circuit current (I <sub>sc</sub> ) [A]	1.55	1.55

Note: Low Irradiance: Air mass 1.5 spectrum, Irradiance = 200W/m<sup>2</sup>, cell temperature = 25°C

### Dependence on irradiance



### Dimensions and weight



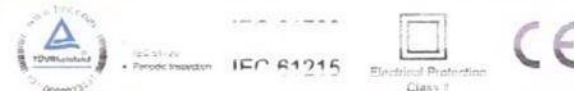
### Guarantee

Power output: 10 years (90% of P<sub>min</sub>) 25 years (80% of P<sub>min</sub>)  
Product workmanship: 5 years  
(Based on guarantee documents)

### Materials

Cell material: Honeycomb Design HIT cells  
Glass material: AR coated tempered glass  
Frame materials: Black anodized aluminium  
Connector type: MC3

### Certificates



### Member of



Please consult your local dealer for more information.

**CAUTION** Please read the installation manual carefully before using the products.

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