

HIT[®] photovoltaic module



HIT-H250E01
HIT-H245E01

R&D technology adaptation

Reduction of carrier recombination loss

- Preserving as much of the generated electricity as possible
- Realizing even higher voltage

Reduction of optical loss

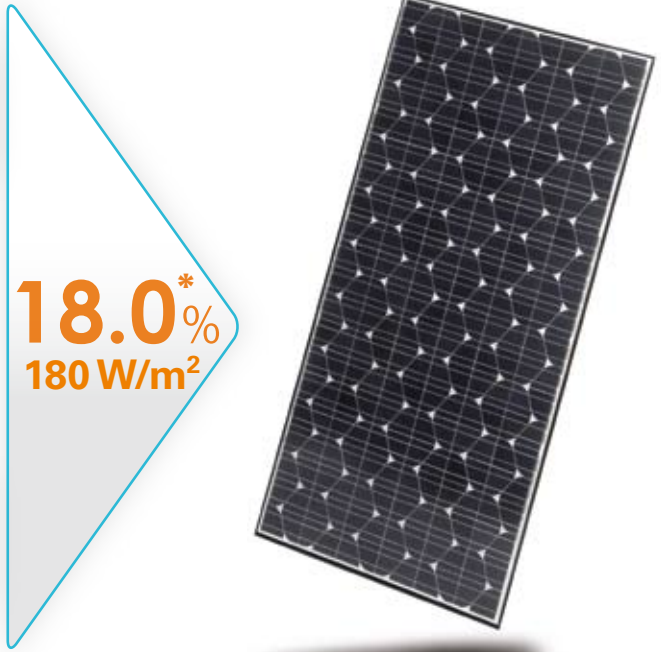
- Enabling as much incoming sunlight as possible to reach the electrical generating layer (crystalline silicon)
- Realizing even higher current

Anti-reflection glass

HD cell design

Use resources effectively

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



18.0%*
180 W/m²

* 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.

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.

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[®] HD Solar Cell

High power, round shape cell

(Silicon raw material) area: 216cm²

12.5cm

HD-HIT

existing-HIT

Changes in generated power daytime

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



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

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.

Electrical data (at STC)

Models HIT-HxxxE01

	250	245
Maximum power (Pmax) [W]	250	245
Max. power voltage (Vmp) [V]	34.9	34.4
Max. power current (Imp) [A]	7.18	7.14
Open circuit voltage (Voc) [V]	43.1	42.7
Short circuit current (Isc) [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/m², cell temperature = 25°C
 *All modules measured by SANYO facility have output with positive tolerance

Temperature characteristics

	250	245
Temperature (NOCT) [°C]	44.0	44.0
Temperature coefficient of Pmax [%/°C]	-0.30	-0.30
Temperature coefficient of Voc [V/°C]	-0.108	-0.107
Temperature coefficient of Isc [mA/°C]	2.32	2.32

At NOCT

	250	245
Maximum power (Pmax) [W]	188.9	185.4
Max. power voltage (Vmp) [V]	32.8	32.4
Max. power current (Imp) [A]	5.76	5.73
Open circuit voltage (Voc) [V]	48.9	48.3
Short circuit current (Isc) [A]	6.23	6.23

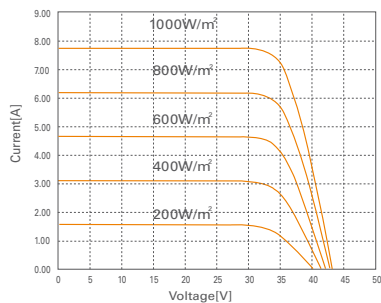
Note: Nominal Operating Cell Temperature : Air mass 1.5 spectrum, Irradiance = 800W/m², Air temperature = 20°C, wind speed 1 m/s

At low irradiance

	250	245
Maximum power (Pmax) [W]	48.8	47.7
Max. power voltage (Vmp) [V]	34.1	33.6
Max. power current (Imp) [A]	1.43	1.43
Open circuit voltage (Voc) [V]	40.1	39.7
Short circuit current (Isc) [A]	1.55	1.55

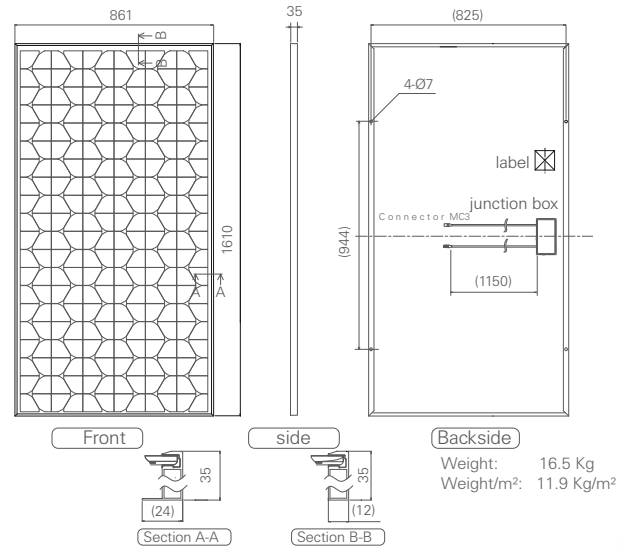
Note: Low irradiance: Air mass 1.5 spectrum, Irradiance = 200W/m², cell temperature = 25°C

Dependence on irradiance



Reference data for model HIT-H250E01 (Cell temperature: 25°C)

Dimensions and weight



Guarantee

Power output: 10 years (90% of Pmin) 25 years (80% of Pmin)
 Product workmanship: 5 years
 (Based on guarantee document)

Materials

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

Certificates



Safety tested, IEC 61730
 Periodic Inspection

IEC 61730

IEC 61215



Member of



Please consult your local dealer for more information.

Available from : www.solar-wind.co.uk

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.