

R&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 material waste
- compact module size but high power generation

HD cell design

Anti-reflection glass

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

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 monocrystalline 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

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

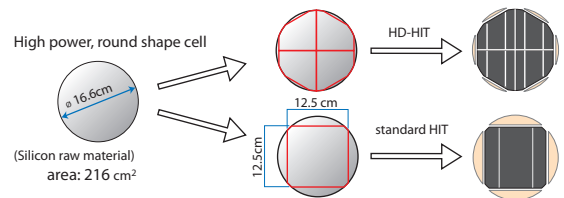
Environmentally friendly solar cell

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

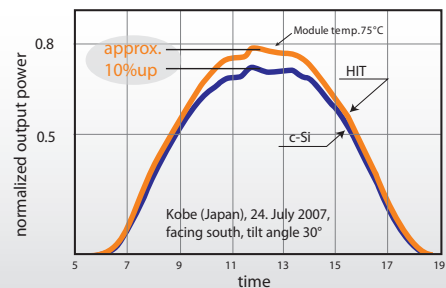
High performance at high temperatures

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

HIT[®] HD solar cell



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]	46.0	46.0
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]	40.5	40.1
Short circuit current (Isc) [A]	6.23	6.23

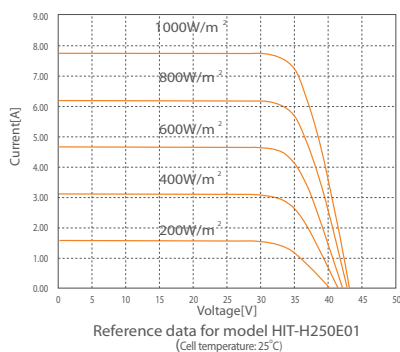
Note: Nominal Operating Cell Temperature: Air mass 1.5 spectrum, Irradiance = 800W/m², Air temperature = 20°C, wind speed 1 m/s

At low irradiance

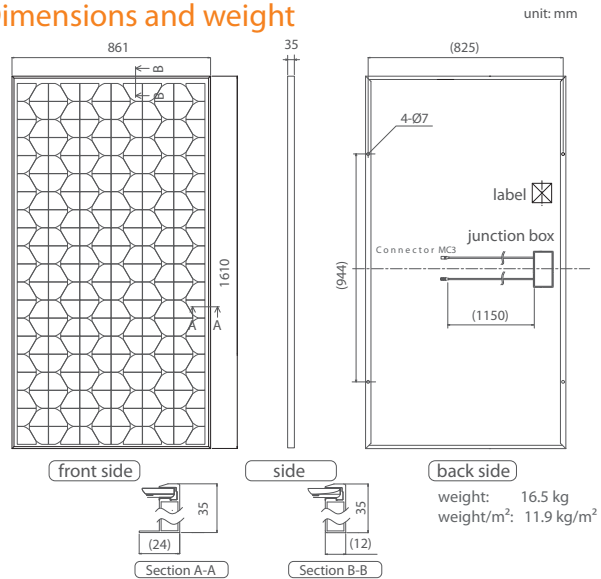
	250	245
Maximum power (Pmax) [W]	48.8	47.7
Max. power voltage (Vmp) [V]	34.1	33.6
Max. power current (Imp) [A]	1.43	1.43
Open circuit voltage (Voc) [V]	40.1	39.7
Short circuit current (Isc) [A]	1.55	1.55

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

Dependence on irradiance



Dimensions and weight



Guarantee

Power output: 10 years (90% of Pmin) 25 years (80% of Pmin)
 Product workmanship: 10 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



Quality tested, IEC 61215
 Safety tested, IEC 61730
 Periodic inspection



Ammonia resistance tested
 Salt mist corrosion tested
 Periodic inspection



Certificate No. MCS PV0034
 Photovoltaic System

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.