

# HIT photovoltaic module

## HIT-240HDE4 HIT-235HDE4

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.



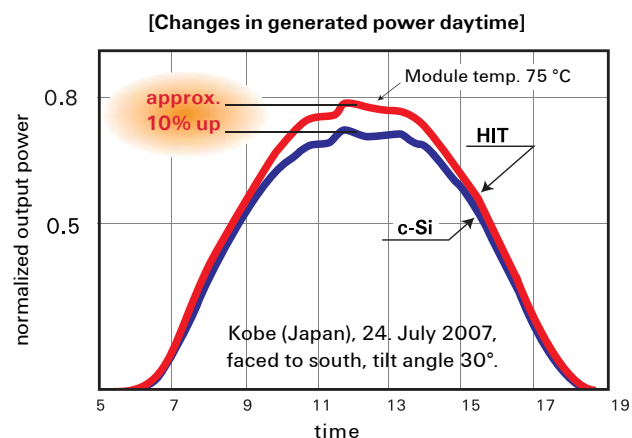
### Benefit in Terms of Performance

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

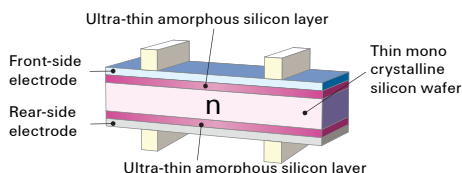
Model	Cell Efficiency	Module Efficiency
HIT-240HDE4	20.0%	17.3%
HIT-235HDE4	19.6%	17.0%

### 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® Solar Cell Structure



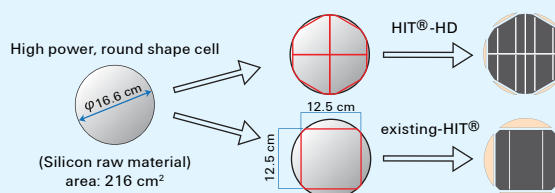
Development of HIT solar cell was supported in part by the New Energy and Industrial Technology Development Organization (NEDO).

### Environmentally-Friendly Solar Cell More Clean Energy

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

### A module that uses silicon resources effectively

The newly developed "Honeycomb Design" HD cell allows the maximum number of round-type, high-power cells to be arrayed in a single module.



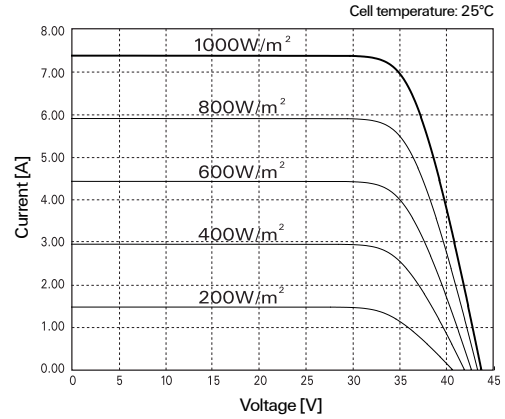
# Electrical and Mechanical Characteristics HIT-240HDE4, HIT-235HDE4

Models HIT-xxxHDE4		
Electrical data	240	235
Maximum power (Pmax) [W]	240	235
Max. power voltage (Vpm) [V]	35.5	35.1
Max. power current (Ipm) [A]	6.77	6.70
Open circuit voltage (Voc) [V]	43.6	43.4
Short circuit current (Isc) [A]	7.37	7.33
Warranted min. power (Pmin) [W]	228.0	223.3
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]	-0.109	-0.109
Temperature coeff. of Isc [mA/°C]	2.21	2.20

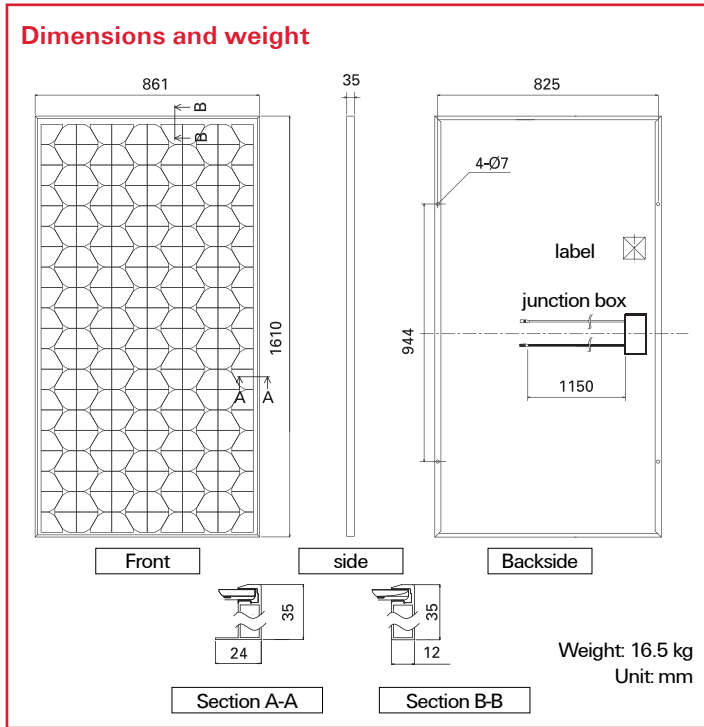
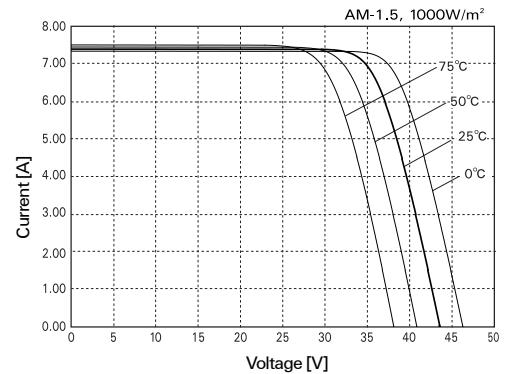
Note 1: Standard test conditions: Air mass 1.5, Irradiance = 1000 W/m<sup>2</sup>, Cell temperature = 25 °C.  
Note 2: The values in the above table are nominal.

## Reference data for model HIT-240HDE4

### Dependence on irradiance



### Dependence on temperature



### Certificates

IEC 61730 IEC 61215



- Periodic inspection
- Qualified, IEC 61215
- Safety tested, IEC 61730



Electrical Protection

Please consult your local dealer for more information.

**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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