HIT Double® photovoltaic module

HIT-210DNKHE1
HIT-205DNKHE1
HIT-200DNKHE1

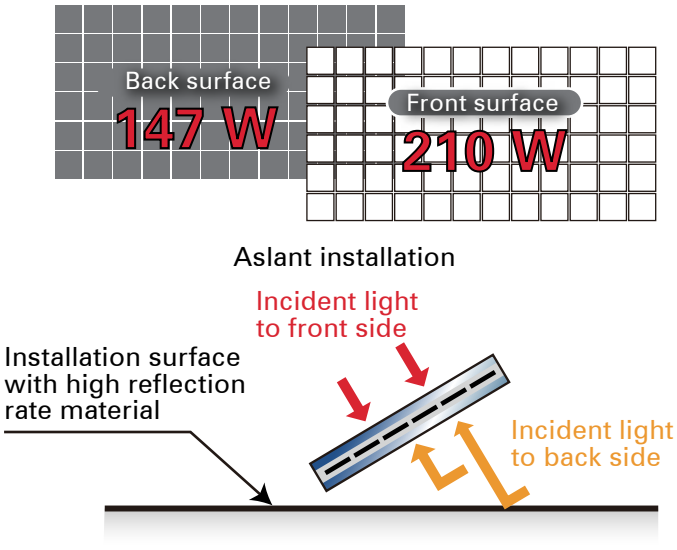
The SANYO HIT (**H**eterojunction with **I**ntrinsic **T**hin layer) solar cell is made of a thin mono crystalline silicon wafer surrounded by ultra-thin amorphous silicon layers. This product provides the industry's leading performance and value using state-of-the-art manufacturing techniques.

1. HIT Double® can generate electricity not only from its front side but also from its rear side because HIT cells have a bifacial structure.

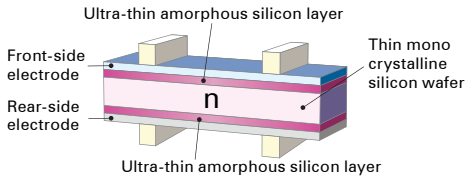
2. The annual energy yield could increase up to 26% compared to standard HIT modules.
   Conditions: Direction: South, Tilt angle: 20°, Albedo*: 64%.
   *Albedo: reflection ratio from the ground.

SANYO's original bifacial solar module

Power from both sides



HIT® Solar Cell Structure



- High performance at high temparatures
- Environmentally-Friendly Solar Cell
  HIT Double® module is a lead-free and 100% emission-free product.

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

HIT® Double
Photovoltaic Module

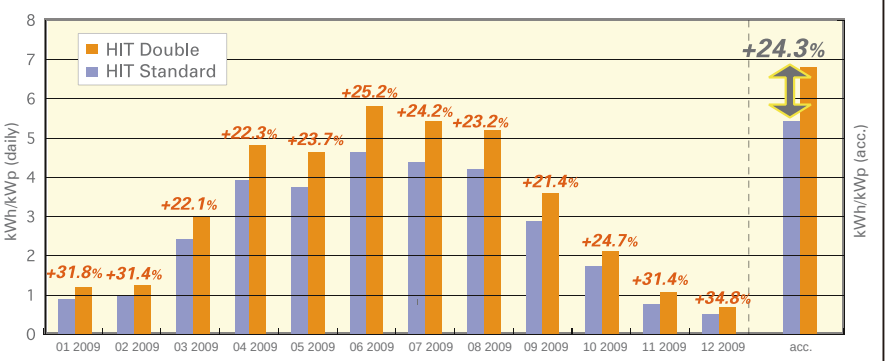
Electrical and Mechanical Characteristics

HIT-210DNKHE1, HIT-205DNKHE1, HIT-200DNKHE1

To maximize the yield

1. Installation surface with high reflection rate material (more than 60% recommended)
2. No shadow cast on the rear side by mounting structure
3. Space between roof and the bottom of the array (50 cm recommended)

Field measurement



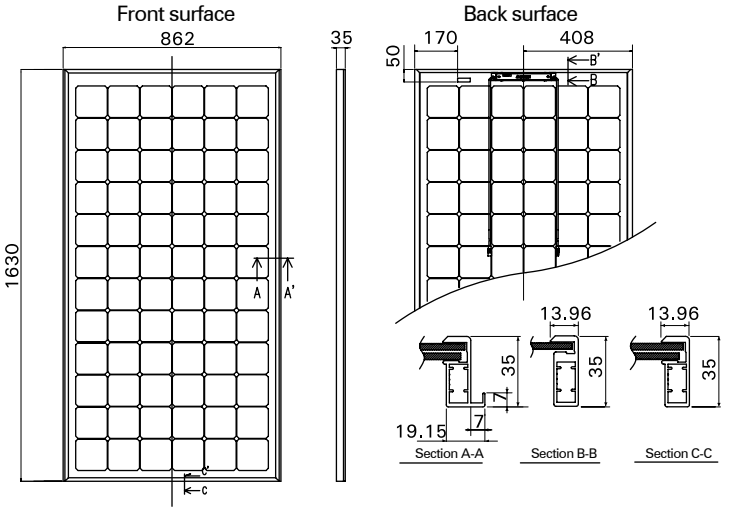
Module type	Standard HIT®	HIT Double®
System output	2.10 kWp	2.00 kWp
Roof reflection rate	64%	
Height of the array	30 cm	
Module angle	Tilt: 20°, Direction: South	
Measured period	01 2009 – 12 2009	
Location	Geilenkirchen	
Measurement system	Supervised by Fraunhofer ISE	
Installation	Pohlen Solar GmbH	

	Models HIT-xxxDNKHE1		
Electrical data	**210**	**205**	**200**
Maximum power (Pmax) [W]	210	205	200
Max. power voltage (Vpm) [V]	42.8	41.3	40.7
Max. power current (Ipm) [A]	5.00	4.97	4.92
Open circuit voltage (Voc) [V]	51.6	50.9	50.3
Short circuit current (Isc) [A]	5.47	5.43	5.40
Warranted min. power (Pmin) [W]	199.5	194.8	190.0
Back surface max. power output (Pmax) [W]	147	143	140
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]	-0,129	-0.127	-0.126
Temperature coeff. of Isc [mA/°C]	1.64	1.63	1.62

Note 1:Standard test conditions: Air mass 1.5, Irradiance = 1000 W/m², Cell temperature = 25 °C.
Note 2: The values in the above table are nominal.

Dimensions and weight

Weight: 26 kg
Unit: mm



Certificates

IEC 61730 IEC 61215

CE

TÜVRheinland ID.0000023425
- Periodic inspection
- Qualified, IEC 61215
- Safety tested, IEC 61730

Electrical Protection

Member of

PV CYCLE

Guarantee

Product: 5 years
Power output: 10 years (90% of Pmin), 20 years (80% of Pmin)
Full conditions are available on our website.

⚠ 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.

Please consult your local dealer for more information.

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