

HIT PHOTOVOLTAIC MODULE HIP-190N1-BO-01



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.



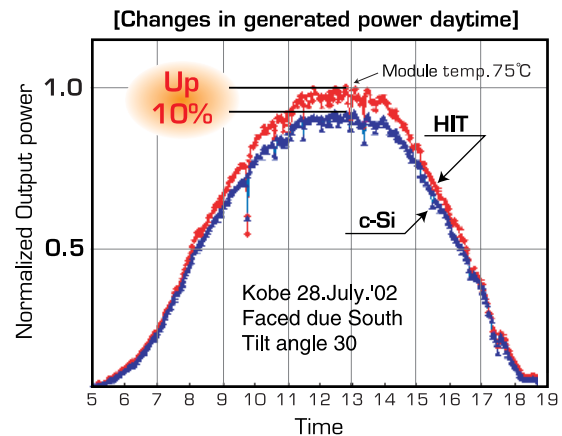
Benefit in Terms of Performance

High efficiency cell: **18.4%**, Module: **16.2%**

The HIT cell and module have the world's highest level of conversion efficiency in mass production.

High performance at high temperatures

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



Environmental Friendly Solar Cell

More Clean Energy

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

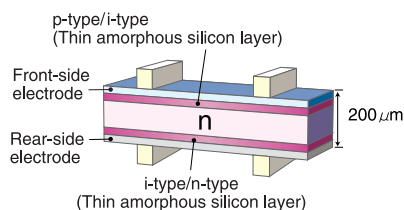
Saving Resources

Thin silicon wafers are used for fabricating HIT solar cells. This contributes to the saving silicon materials (Conventional Wafer: 350 μm, HIT: 200 μm)

Lead Free

HIT solar cell modules are lead free. This feature minimizes the impact for environment in the future.

HIT Solar Cell Structure



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

Benefit in Terms of Quality

High quality in accordance with ISO 9001 and 14001 standards

HIT solar cell and modules are subject to strict inspections and measurements to ensure compliance with electrical, mechanical and visual criteria.



Electrical and Mechanical Characteristics

HIP-190N1-BO-01

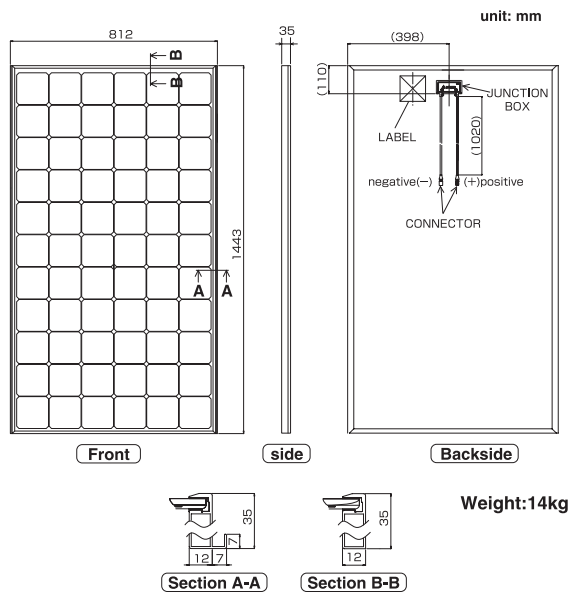
Electrical data

Maximum power (Pmax)	[W]	190
Max. power voltage (Vpm)	[V]	37.6
Max. power current (Ipm)	[A]	5.05
Open circuit voltage (Voc)	[V]	46.4
Short circuit current (Isc)	[A]	5.57
Warranted minimum power (Pmin)	[W]	180.5
Output tolerance	[%]	+10/-5
Maximum system voltage	[Vdc]	600
Temperature coefficient of Pmax	[%/°C]	- 0.30
Voc	[V/°C]	- 0.116
Isc	[mA/°C]	1.67

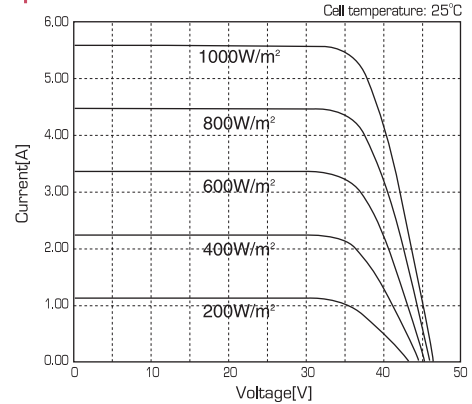
Note1: Standard Test Conditions: Air mass 1.5, Irradiance = 1000W/m², Cell temperature = 25°C

Note2: The values in the above table are nominal.

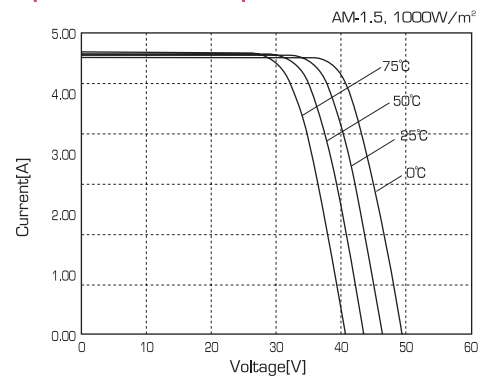
Dimensions and weight



Dependence on irradiance



Dependence on temperature



Please consult your local dealer for more information.

Warranty

Power output: 20 years (80% of minimum output power)

Product workmanship : 2 years

(Based on contact terms.)



CAUTION! Please read the operating instructions carefully before using the products.

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

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