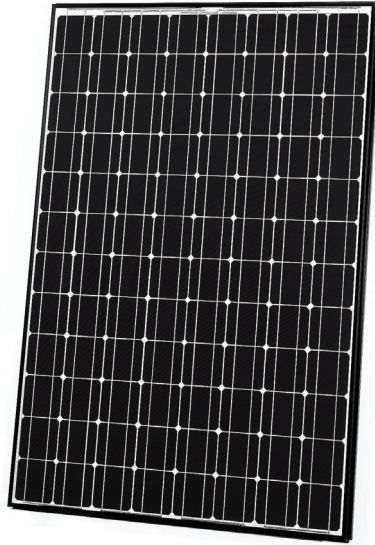


# HIT<sup>®</sup> PHOTOVOLTAIC MODULES

## Specifications for Models:

HIP-180BA3, HIP-186BA3,  
HIP-190BA3, HIP-195BA3,  
HIP-200BA3, HIP-205BA3



**Power Output Range**  
**180~205 Watts**  
(depends on model)

**Module Efficiency: 15.3%~17.4%**  
**Cell Efficiency: 17.8%~20.2%**

## Proprietary Technology

SANYO HIT<sup>®</sup> (Heterojunction with Intrinsic Thin layer) solar cells are hybrids of single crystalline silicon surrounded by ultra-thin amorphous silicon layers.

## High Efficiency

SANYO HIT solar panels are a leader in cell and module efficiency. With models up to 16.2 Watts per sq. foot (17.4% module efficiency) you obtain maximum power within a fixed amount of space. You save costs by using fewer support materials and less time installing. The powerful panels are ideal for grid-connected solar systems, areas with performance based incentives, and renewable energy credits.

## Temperature Attributes

As temperatures rise, SANYO HIT solar panels produce more electricity (kWh) than conventional crystalline silicon solar panels at the same temperature.

## Unique Structure

SANYO HIT solar panels have a black anodized aluminum, double-wall frame for extra strength. The panels come pre-equipped with a touch-safe junction box, lead wires, MC<sup>™</sup> plug-n-play connectors, and unique mounting rails, all of which help to minimize BOS support structure materials, installation time and costs.

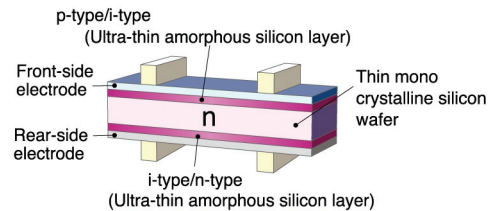
## Valuable Features

SANYO HIT solar panels have no moving parts and weigh less than 31 pounds (14kg). The panels are 100% emission and noise free. The panels have a 20-Year Limited Power Output Warranty and a 2-Year Limited Product Workmanship Warranty. Panels are UL 1703 safety rated for wind, hail and fire. Unique eco-packaging minimizes cardboard waste at the job site, and allows storage and transport of panels using less space.

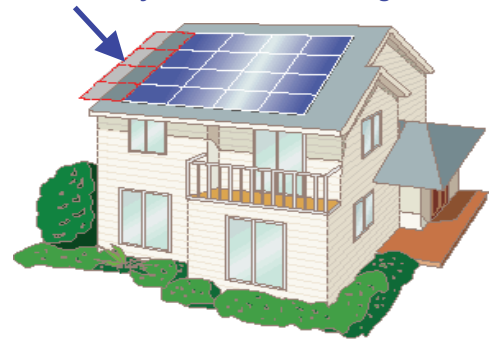
## Quality & Ratings

SANYO silicon wafers are manufactured in the USA, and the panels are assembled in Mexico at an ISO 9001 and 14001 certified factory. All panels undergo inspections to ensure strict compliance with electrical, mechanical, environmental and visual criteria. SANYO's conservative power ratings for models grant more kWh per rated kW, and assist with accurate predictions of performance and economics.

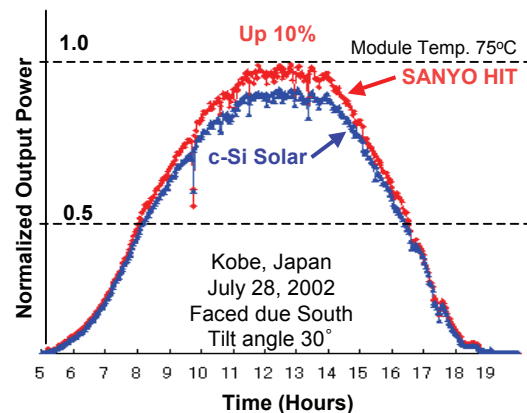
## SANYO HIT<sup>®</sup> Solar Cell Structure



## Unnecessary Section When Using SANYO



## Increased Performance with SANYO



# All HIP-xxxBA3 Models

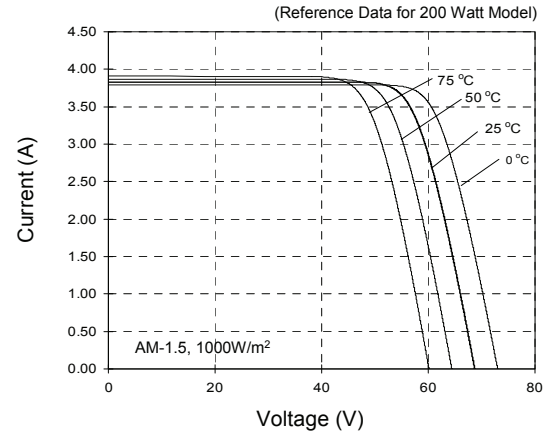


## Electrical Specifications

180W 186W 190W 195W 200W 205W

Rated Power (Pmax) <sup>1</sup>	W	180	186	190	195	200	205
Maximum Power Voltage (Vpm)	V	54.0	54.4	54.8	55.3	55.8	56.7
Maximum Power Current (Ipm)	A	3.33	3.42	3.47	3.53	3.59	3.62
Open Circuit Voltage (Voc)	V	66.4	67.0	67.5	68.1	68.7	68.8
Short Circuit Current (Isc)	A	3.65	3.71	3.75	3.79	3.83	3.84
Minimum Power (Pmin)	W	171.0	176.7	180.5	185.3	190.0	194.8
Max System Voltage (Vsys)	V	600	600	600	600	600	600
Series Fuse Rating	A	15	15	15	15	15	15
Temperature Coefficient (Pmax)	%/°C	-0.33	-0.30	-0.30	-0.30	-0.29	-0.29
Temperature Coefficient (Voc)	V/°C	-0.173	-0.168	-0.169	-0.170	-0.172	-0.172
Temperature Coefficient (Isc)	mA/°C	1.10	0.85	0.86	0.87	0.88	0.88
Electrical Tolerance	%	+10/-5	+10/-5	+10/-5	+10/-5	+10/-5	+10/-5
Warranted Tolerance	%	+10/-0	+10/-0	+10/-0	+10/-0	+10/-0	+10/-0
Cell Efficiency	%	17.8	18.4	18.8	19.3	19.7	20.2
Module Efficiency	%	15.3	15.8	16.1	16.5	17.0	17.4
Power per Sq. Foot	W	14.2	14.7	15.0	15.4	15.8	16.2

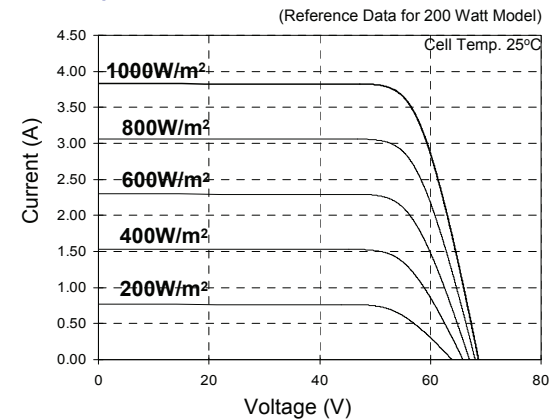
## Dependence on Temperature



## Mechanical Specifications

Internal Bypass Diodes	4 Bypass Diodes
Module Area (m <sup>2</sup> )	12.69 Ft <sup>2</sup> (1.18m <sup>2</sup> )
Weight (kg)	30.86 Lbs. (14kg)
Dimensions LxWxH (mm)	51.9x35.2x1.4in (1319x894x35mm)
Cable Length -Male/+Female (mm)	30.7/24.8in (780/630mm)
Cable Size / Connector Type	No.12 AWG / MC <sup>TM</sup> Connectors
Static Load Wind / Snow (Pa)	50PSF (2400Pa) / 39PSF (1876Pa)
Pallet Dimensions LxWxH (mm)	53x36x63in (1346x912x1600mm)
Pieces per Full Pallet / Weight (kg)	36pcs / 1111 Lbs (504kg)
Quantity per 20'/40'/53' Container	360pcs / 756pcs / 972pcs

## Dependence on Irradiance



## Operating Conditions & Safety Ratings

Temperature (°C)	-4°F to 104°F (-20°C to 40°C) <sup>2</sup>
Hail Safety Impact Velocity	1" hailstone (25mm) at 52mph (23m/s)
Fire Safety Classification	Class C
Safety & Rating Certifications	UL 1703, cUL, CEC
Limited Warranties	2 Years Workmanship / 20 Years Power Output

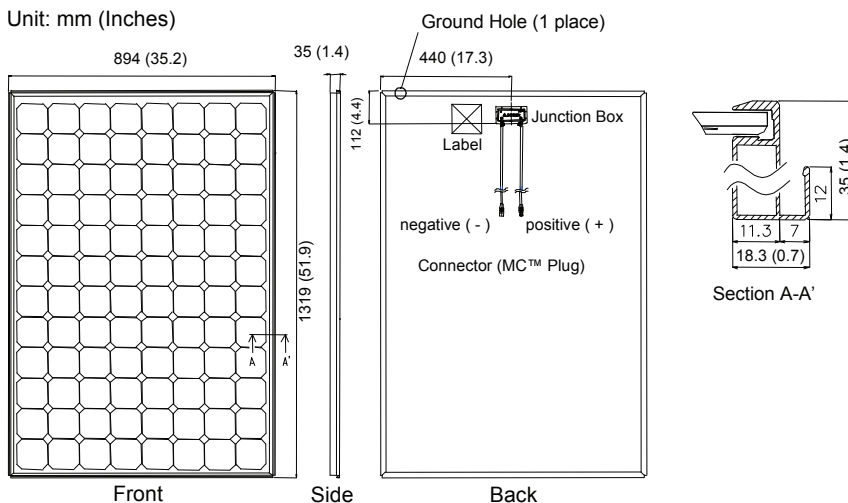
<sup>1</sup>STC: Cell Temp. 25°C, AM1.5, 1000W/m<sup>2</sup>    <sup>2</sup>Monthly average low and high of the site.

**CAUTION!** Read the operating instructions carefully before use of these products.

Note: Specifications and products above may change without notice. 04/01/07

## Dimensions

Unit: mm (Inches)



Visit [www.SANYO.com](http://www.SANYO.com) or contact an Authorized Representative for more information: