

### **Bifacial Photovoltaic Module**

# HIT Double 195

## **VBHB195DA03**

Power per Square Foot up to 19.1 Watts



#### Bifacial Effect

The back face of HIT Double solar panels generates electricity from ambient light reflected off surrounding surfaces, and combines with power from the front face of the panel. Dependant upon system design and site albedo, this results in up to 30% higher power generation (more kWh) per square foot.

#### **Application Possibilities**

- Architectural, Awnings, Balconies, Bus Shelters, BIPV
- Deck & Porch Coverings, Canopies, Carports, Facades
- Fences, Siding, Trellises, Tracking Systems

#### **High Temperature Performance**

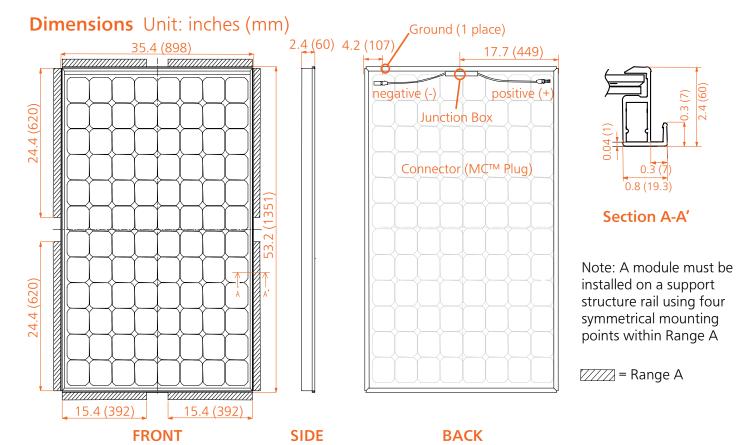
As temperatures rise, HIT Double solar panels produce more electricity than conventional solar panels at the same temperature, for good performance in high temperature sites.

#### **Quality Products**

The packing density of the panels reduces transportation, fuel, and storage costs per installed watt.

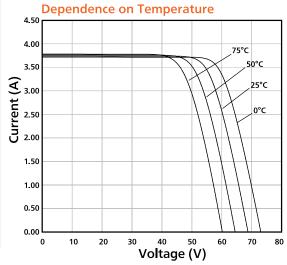
#### **American Made Quality**

Our silicon wafers are made in Oregon, USA and assembled in Mexico at SANYO's certified factory. ISO 9001(quality), 14001 (environment), 18001 (safety).



## HIT® Double 195

Electrical Specifications			Specifications Including Backside Irradiation Contribution in ISC as a Percent of STC					
Model VBHB195DA03	STC <sup>1</sup>	5%	10%	15%	20%	25%	30%	
Rated Power (Pmax) <sup>1</sup>	195 W	204 W	213 W	222 W	231 W	240 W	249 W	
Maximum Power Voltage (Vpm)	55.8 V	55.8 V	55.8 V	55.9 V	56.0 V	56.0 V	56.1 V	
Maximum Power Current (Ipm)	3.5 A	3.66 A	3.82 A	3.97 A	4.13 A	4.29 A	4.45 A	
Open Circuit Voltage (Voc)	68.7 V	68.9 V	69.0 V	69.1 V	69.2 V	69.2 V	69.5 V	
Short Circuit Current (Isc)	3.73 A	3.92 A	4.10 A	4.29 A	4.48 A	4.66 A	4.85 A	
Max. System Voltage (Vsys)	600 V	_	_	_	_	_	_	
Series Fuse Rating	15 A	_	_	_	_	_	_	
Temperature Coefficient (Pmax)	-0.34%/°C	_	_	_	_	_	_	
Temperature Coefficient (Voc)	-0.192 V/°C	_	_	_	_	_	_	
Temperature Coefficient (Isc)	1.70 mA/°C	_	_	_	_	_	_	
Warranted Tolerance	+10/-0%	_	_	_	_	_	_	
Cell Efficiency	19.3%	_	_	_	_	_	_	
Module Efficiency <sup>2</sup>	16.1%	16.8%	17.6%	18.3%	19.0%	19.8%	20.5%	
Power per Square Foot	14.9 W	15.6 W	16.3 W	17.0 W	17.7 W	18.4 W	19.1 W	



#### **Mechanical Specifications**

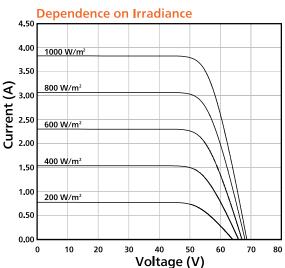
Internal Bypass Diodes	4 Bypass Diodes
Module Area	13.06 Ft <sup>2</sup> (1.21m <sup>2</sup> )
Module Weight	50.7 Lbs. (23kg)
Module Dimensions LxWxH	53.2 x 35.35 x 2.36 in. (1351 x 898 x 60 mm)
Cable Lengths	39.4 in. each (1000 mm)
Cable Size / Connector Type	No. 12 AWG / MC3™ Connectors
Static Load	50 PSF (2400 Pa)
Pallet Dimensions LxWxH	54.3 x 36 x 70.1 in. (1379 x 912 x 1781 mm)
Full Pallet Quantity & Weight	20 pcs. / 1014 Lbs. (460 kg)
Quantity per 20'/40'/53' Container	200 pcs., 420 pcs., 540 pcs.



Fire Safety Classification	Class A			
Hail Safety Impact Velocity	1" hailstone (25mm) at 52 mph (23m/s)			
NOCT (°C)	113°F (45°C)			
Safety & Rating Certifications	UL 1703, cUL, CEC			
Limited Warranties 10 Years Workmanship, 20 Years Power Output				
<sup>1</sup> Standard Test Conditions: Cell Temperature 25°C, Air Mass 1.5, 1000 W/m <sup>2</sup>				

#### To Maximize Power

- 1. Elevate panels above a surface as much as possible.
- 2. Place panels over light-colored surfaces.
- 3. Do not allow support rails to shade the panel's back face.



#### **IMPORTANT:**

The rated power of HIT® Double bifacial solar panels is measured under Standard Test Conditions (STC). STC does not account for power produced from the back face of panels. Therefore, HIT Double panels will produce more power than their STC rating, up to 30% more, depending upon the system design and site albedo. Account for the additional power when sizing, selecting system components and wiring.

**CAUTION!** Please read the installation manual carefully before using the products.

### Panasonic Eco Solutions Energy Management North America **Unit of SANYO North America Corporation**

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Equivalent module efficiency, including power from the back face.

Note: Specifications and information above may change without notice.