



H.C. ENERGY GROUP HOLDINGS CO.,LTD.

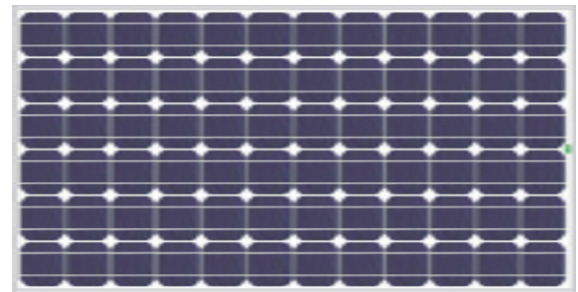
HG-200S -200W

Monocrystalline photovoltaic module



MONOCRYSTALLINE SILICON PHOTOVOLTAIC MODULE WITH 200W POWER

H.C.Energy Group Holdings Co.,Ltd has concentrated on solar energy research for 13 years. HCEG's HG-200S photovoltaic module is designed for large electrical power requirements, this module has super durability to withstand rigorous operating conditions and is suitable for grid connected systems.



Features

- ◆ High-power module(200W)using 125mm square monocrystalline silicon solar cells with 15.7% module conversion efficiency
- ◆ Photovoltaic module with bypass diode minimizes the power drop caused by shade. Textured cell surface to reduce the reflection of sunlight and BSF(Back Surface Field)structure to improve cell conversion efficiency :18.0%
- ◆ Using low-iron tempered glass,EVA resin and an aluminium frame for extended outdoor use
- ◆ DC 24V system and high-voltage output for grid connected system
- ◆ Output terminal:Lead wire with waterproof connector

Specifications HG-200S

Cell	Monocrystalline silicon solarcells, 125mm square
Number of cells and connections	72 in series
Application	DC 24V system
Maximum system voltage	DC 1,000V
Series fuse rating	10A
Nominal power	200W
Dimensions	1580×808×50mm
Weight	16.2Kg
Type of output terminal	Lead wire with connector

Absolute maximum ratings

Parameters	Rating	Unit
Operating temperature	-40 to +85	°C
Storage temperature	-40 to +85	°C

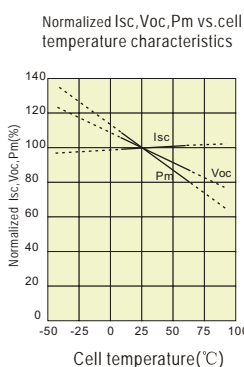
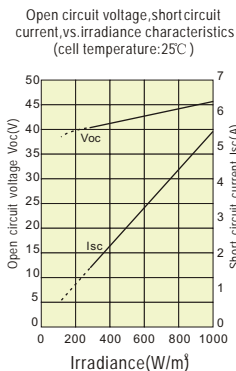
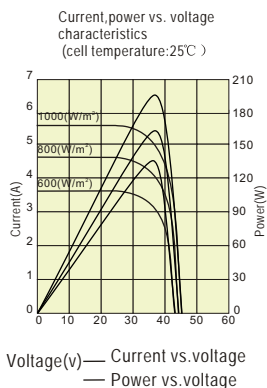
Temperature coefficients

αP_m	-0.490%/°C
αI_{sc}	+0.050%/°C
αV_{oc}	-152mv/°C

Electro-optical characteristics

Parameters	Symbol	Min.	Type	Unit	Conditions
Open circuit voltage	V _{oc}	—	45.4	V	Standard test conditions (STC)
Maximum power voltage	V _{pm}	—	38.0	V	
Short circuit current	I _{sc}	—	5.61	A	Irradiance 1,000W/m ²
Maximum power current	I _{pm}	—	5.27	A	
Maximum power	P _m	190.0	200.0	W	AM1.5
Encapsulated solar cell efficiency	η_c	—	18.0	%	Module temperature 25°C
Module efficiency	η_m	—	15.7	%	

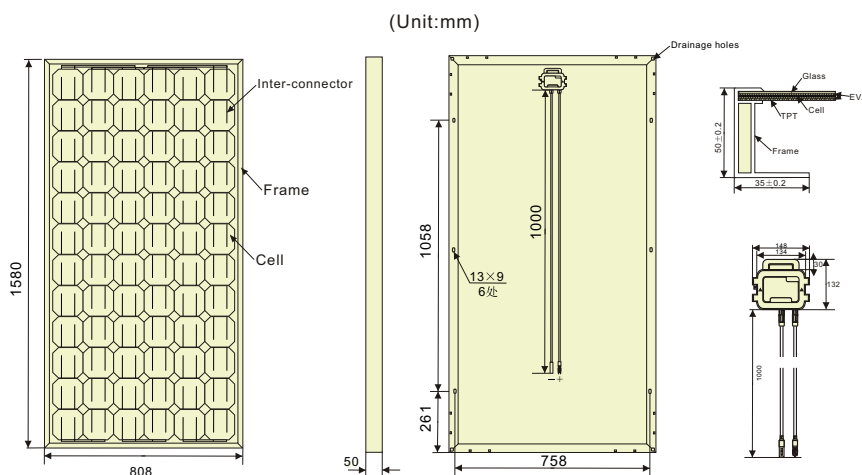
Characteristics



Applications

- ◎ Grid connected residential system
- ◎ Office buildings
- ◎ Solar power stations
- ◎ Solar villages
- ◎ Villas, mountain cottages
- ◎ Pumps
- ◎ Lighting equipment
- ◎ Traffic signs
- ◎ Radio relay stations
- ◎ Beacons
- ◎ Telemeter systems
- ◎ Telecommunication systems

Outline dimensions





山东泰岱光伏科技有限公司
TD SOLAR COMPANY LIMITED



230watt Monocrystalline solar module specifications

Module Type	TDM6660-230
Cell Type	Mono Crystalline 156mm × 156mm
Maximum power (Wp)	230
Open circuit voltage (V)	37,40
Short circuit current (A)	8,23
Maximum power voltage (V)	29,41
Maximum power current (A)	7,83
Number of cells (Pcs)	60
Size of module (mm)	1640mm × 992mm × 50mm
Maximum system voltage (V)	DC 1000V
Weight per module	18.5Kg
Temperature coefficients of Isc	+ 0.08%/°C
Temperature coefficients of Voc	-0.313%/°C
Temperature coefficients of Pm	-0.37%/°C
Operating Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C
Surface Maximum Load Capacity	2400-Pa
Allowable Hail Load	227g steel ball falls down from 1m height
Junction Box	IP65 Standard
Length of Cables (mm)	900mm
Module Efficiency (%)	14.14%
Frame (Material, Corners, etc.)	Aluminum
Power Tolerance	± 3%
Nominal Operating Cell Temperature	45 ± 2°C
Standard Test Conditions	AM 1000W/M2 Cell temperature 25°C
Warranty	5 years product warranty
Quantity per 40 feet container	494PCS