

GES-5M190 GES-5M195

GES-5M180 GES-5M185 GES-5M200

195 Watt Monocrystalline Photovoltaic Module



Outstanding mechanical load performance enables each panel to withstand wind up to 200 km/h or snow up to 550 kg/m²



In-line Electroluminescence (EL) testing of each panel ensures no micro-cracks or mismatch on cells.



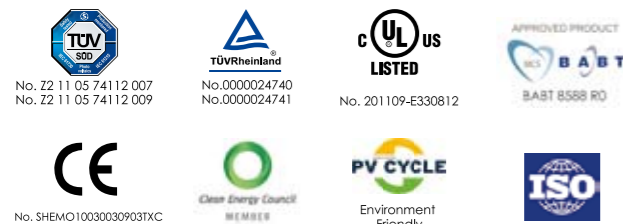
Ammonia Endurance Test(IEC62716) and Salt Mist Test(IEC61701) verified the excellent performance of each panel in harsh or unusual environments.



Aging test under 85 °C and 85 % relative humidity for at least 1500 hours guarantees a low power degradation for 25 years.



*Black modules are also available



Features

- Up to +5W power tolerance of each panel ensuring high ROI
- High cell conversion efficiency up to 18.5 %
- Outstanding electrical performance under high temperature and low-irradiance conditions
- Easy installation and all-weather applications thanks to innovative engineering design

Insurance

All performance and cooperation warranties are ensured with Product Liability and Financial Injury (E&O) Liability Insurance with CHUBB INSURANCE (CHINA) COMPANY LIMITED.

Warranty

GESOLAR guarantees

- Up to +5W power tolerance of each panel
- Workmanship and materials in 10 years
- 90 % minimum power output in 12 years
- 80 % minimum power output in 25 years

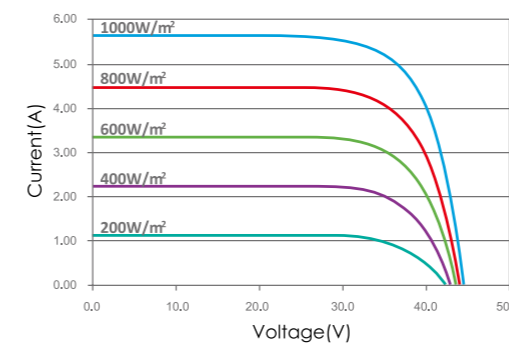
Electrical Characteristics

Characteristics	Unit	GES-5M180	GES-5M185	GES-5M190	GES-5M195	GES-5M200
Maximum Power (Pmax)	W	180	185	190	195	200
Power Tolerance	W	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)
Open Circuit Voltage (Voc)	V	44.4	44.6	44.8	45.0	45.2
Short Circuit Current (Isc)	A	5.35	5.53	5.68	5.80	5.89
Maximum Power Voltage (Vmp)	V	35.4	35.6	35.8	36.0	36.2
Maximum Power Current (Imp)	A	5.08	5.20	5.31	5.42	5.52
Cell Efficiency (ηc)	%	16.6~17.1	17.1~17.6	17.6~18.0	18.0~18.5	18.5~19.0
Module Efficiency (ηm)	%	14.1~14.5	14.5~14.9	14.9~15.3	15.3~15.7	15.7~16.1
Cell Technology	125mm×125mm, Monocrystalline Silicon ;72pcs(6×12)					
Pmax Temperature Coefficient	%/°C	-0.44				
Voc Temperature Coefficient	%/°C	-0.32				
Isc Temperature Coefficient	%/°C	+0.04				
Maximum System Voltage	VDC	1000(TUV);600(UL)				
Maximum Series Fuse Rating	A	8				
Operating Temperature	°C	-40 ~ +85				
NOCT	°C	45±2				

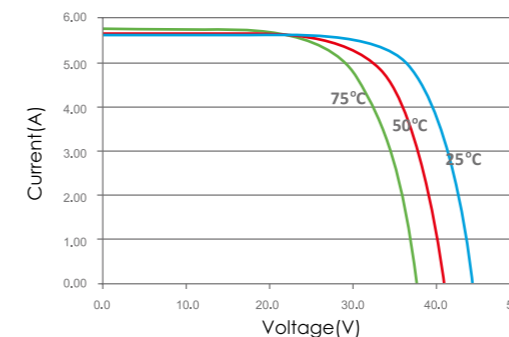
STC: 1000W/m², AM1.5 and 25°C cell temperature; NOCT: Nominal Operating Cell Temperature

I-V Curves

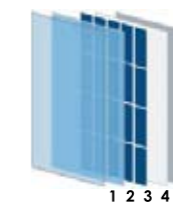
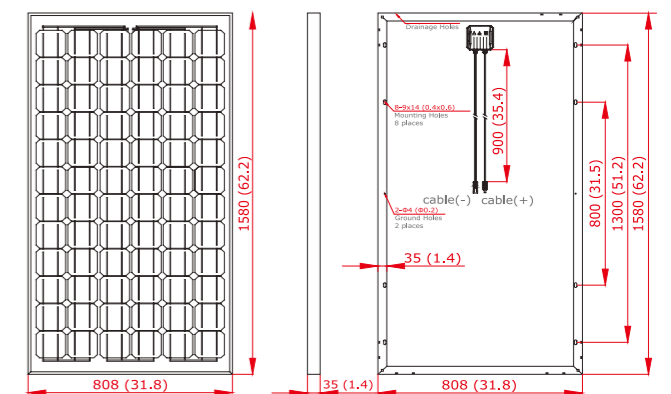
I-V Curves of PV Module GES-5M190
(Cell Temp. 25 °C)



I-V Curves of PV Module GES-5M190
at Different Cell Temperatures(AM1.5,1000W/m²)



Physical Characteristics Unit: mm(inch)



1. Tempered Glass
2. EVA(Ethylene Vinyl Acetate)
3. Solar Cells
4. EVA(Ethylene Vinyl Acetate)
5. Backsheet

Dimension	1580 x 808 x 35 mm (62.2 x 31.8 x 1.4 inch)
Weight	16 kg (35.3 lbs.)
Cable Length	900 mm (35.4 inch)
Bypass Diodes	3 pcs
Junction Box	IP65/IP67
Front Glass	3.2 mm (0.1 inch) tempered low-iron glass
Frame	Anodized aluminum alloy

* Specifications are subjected to change without further notice