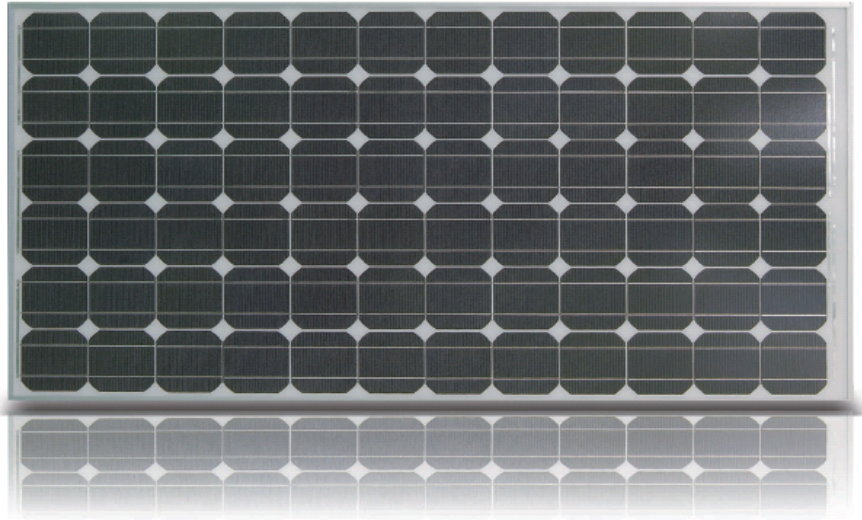




Standard  
Module

BIPV

Solar  
Car Sunroof



## Standard Module

### GSS5 Series 5" Cell Module (170, 175, 180 Wp)

#### Features

- 72 pre-sorted high efficient mono-crystalline silicon solar cells
- Long term stability by quality control and exact tuning of components
- Lower risk of short achieved by specifically non-overlapping bus bar design
- Strict power measurement that minimize the power tolerance to +/-3%
- Sorting limit of module classification to +/-2.5W
- Modules are manufactured in ISO 9001 and 14001 certificated facilities guarantee prime quality as well as environment-friendly products

#### IEC certificate

The test sequences of the IEC 61215 and IEC 61730 confirm that Gloria Solar modules are capable of withstand the artificial loads of the materials as well as safety qualification. It provides reliable performance and safety for entire range of Gloria Solar modules

#### Dimensions

Length * Width (mm)	1599*806
Thickness (mm)	40
Weight (kg)	15.8



## GSS5 Series 5" Cell Modules

### Electrical characteristics under standard test condition (STC) <sup>1</sup>

		GSS5-170A-E1	GSS5-175A-E1	GSS5-180A-E1
Maximum power (P <sub>max</sub> ) <sup>2</sup>	W	170	175	180
Voltage at maximum power (V <sub>mp</sub> )	V	35.5	35.7	36.0
Current at maximum power (I <sub>mp</sub> )	A	4.79	4.90	5.00
Open-circuit voltage (V <sub>oc</sub> )	V	44.6	44.8	45.0
Short-circuit current (I <sub>sc</sub> )	A	5.30	5.32	5.33
Module efficiency	%	13.1	13.5	13.9

1. STC : AM1.5G, 1000W /m<sup>2</sup>, cell temperature of 25 °C .

2. Power tolerance at maximum power under STC condition = ±3%

### Electrical characteristics under Normal Operating Cell Temperature (NOCT) <sup>3</sup> condition

		GSS5-170A-E1	GSS5-175A-E1	GSS5-180A-E1
Maximum power (P <sub>max</sub> )	W	121	125	128
Voltage at maximum power (V <sub>mp</sub> )	V	31.9	32.1	32.3
Current at maximum power (I <sub>mp</sub> )	A	3.81	3.90	3.98
Open-circuit voltage (V <sub>oc</sub> )	V	40.0	40.2	40.4
Short-circuit current (I <sub>sc</sub> )	A	4.30	4.37	4.46

3. NOCT Condition : irradiation 800W /m<sup>2</sup>, AM1.5 spectrum, wind speed of 1m/s and ambient temperature 20 °C .

### Temperature coefficient

Short-circuit current	$\alpha$	T <sub>s</sub> (I <sub>sc</sub> )	0.0248%/K
Open-circuit voltage	$\beta$	T <sub>c</sub> (V <sub>oc</sub> )	-0.2821%/K
Maximum power	$\gamma$	T <sub>c</sub> (P <sub>max</sub> )	-0.3812%/K

### Performance at low radiance

\*\* \*\* Module efficiency at 200 W/m<sup>2</sup>, 25°C is lower than that at STC by approximately 6.4% (relative)

### System Integration

\*\* Maximum system voltage= 1000 V

\*\* Fuse rating: 10A

