

## BIPV Solar Module: Smile Solar SSR220MG Series



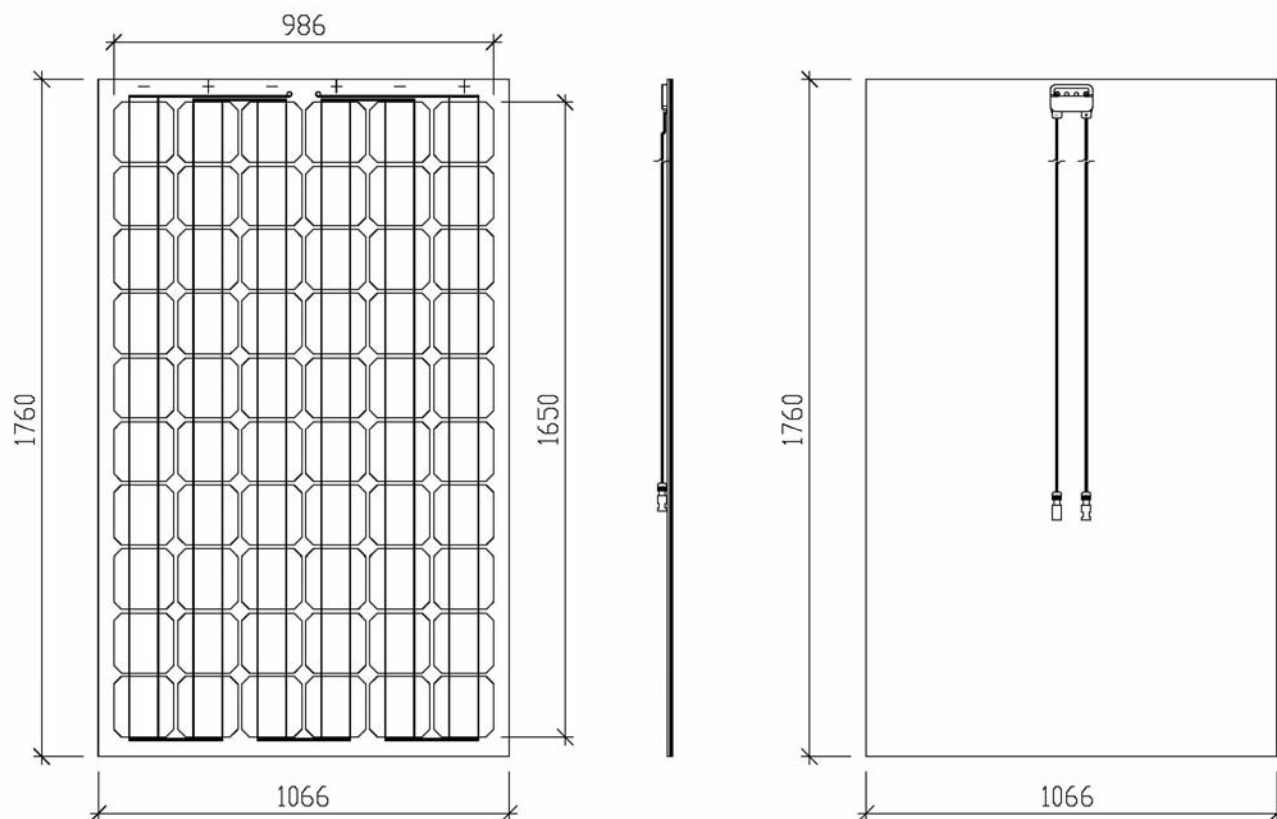
SSR200MG/SSR205MG/SSR210MG/SSR215MG/SSR220MG/  
SSR225MG/SSR230MG/SSR235MG

### Front View



## Technical Drawing

Unit: 【mm】



### Electrical Characteristics: Performance at STC\*1

| Model Type                 | SSR200MG | SSR205MG | SSR210MG | SSR215MG |
|----------------------------|----------|----------|----------|----------|
| Nominal Peak Power, Pmax   | 200W±5%  | 205W±5%  | 210W±5%  | 215W±5%  |
| Peak Power Voltage, Vpm    | 28.61V   | 28.95V   | 29.18V   | 29.40V   |
| Peak Power Current, Ipm    | 7.00A    | 7.08A    | 7.22A    | 7.36A    |
| Open Circuit Voltage, Voc  | 36.19V   | 36.62V   | 37.04V   | 37.45V   |
| Short Circuit Current, Isc | 7.58A    | 7.67A    | 7.77A    | 7.92A    |
| Cell Area Efficiency       | 12.29%   | 12.60%   | 12.91%   | 13.22%   |

\* STC: Standard Test Condition, 1000W/m<sup>2</sup>, AM 1.5, 25°C

### Electrical Characteristics: Performance at STC\*1

| Model Type                 | SSR220MG | SSR225MG | SSR230MG | SSR235MG |
|----------------------------|----------|----------|----------|----------|
| Nominal Peak Power, Pmax   | 220W±5%  | 225W±5%  | 230W±5%  | 235±5%   |
| Peak Power Voltage, Vpm    | 29.69V   | 29.46V   | 29.80V   | 29.75V   |
| Peak Power Current, Ipm    | 7.43A    | 7.69A    | 7.78A    | 7.90A    |
| Open Circuit Voltage, Voc  | 37.63V   | 37.20V   | 37.63V   | 37.55V   |
| Short Circuit Current, Isc | 8.00A    | 8.36A    | 8.46A    | 8.57A    |
| Cell Area Efficiency       | 13.52%   | 13.83%   | 14.14%   | 14.44%   |

\* STC: Standard Test Condition, 1000W/m<sup>2</sup>, AM 1.5, 25°C

## System Integration Parameter

|                        |                       |
|------------------------|-----------------------|
| Maximum System Voltage | 1000VDC(600VDC in US) |
| Series Fuse Rating     | 10A                   |
| Operating Temperature  | -40 to 85°C           |

## Thermal Characteristics

|                                                        |            |
|--------------------------------------------------------|------------|
| Temperature Coefficient TK Pmax (Peak Power)           | -0.52%/°C  |
| Temperature Coefficient TK Voc (Open Circuit Voltage)  | -0.38%/°C  |
| Temperature Coefficient TK Isc (Short Circuit Current) | +0.03%/°C  |
| Temperature Coefficient TK Vmp (Peak Power Voltage )   | -0.415%/°C |

## Component Materials

|                       |                                                                                                                                                                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cell Q'ty per Module  | 60 pcs                                                                                                                                                                                                                                               |
| Cell Type             | Mono-crystalline Silicon                                                                                                                                                                                                                             |
| Cell Dimensions       | 156 x 156 mm                                                                                                                                                                                                                                         |
| Laminate Construction | Front: Low-Iron Tempered Glass 5mm<br>(Basic design=5mm. >5mm or above, ex. 6mm. custom-made possible)<br>Encapsulation: Solar Cells Embedded in EVA<br>Rear: Tempered Glass 6mm<br>(Basic design=6mm. >6mm or above, ex. 7mm. custom-made possible) |
| Junction Box          | IP65 (TÜV Certified)                                                                                                                                                                                                                                 |
| Bypass Diodes         | 3 pcs                                                                                                                                                                                                                                                |
| Cable                 | 2 Cables(TÜV Certified)                                                                                                                                                                                                                              |
| Connector             | TÜV Certified                                                                                                                                                                                                                                        |
| Frame                 | No                                                                                                                                                                                                                                                   |

## Physical Specifications

|                   |                           |
|-------------------|---------------------------|
| Dimension (L×W×H) | 1760 × 1066 ×( 11.5±1) mm |
| Weight (kg)       | 53.5 kg                   |

## Quality Assurance

|                           |               |
|---------------------------|---------------|
| IEC61215:2005             | TÜV Certified |
| EN61730-1& EN61720-2:2007 | TÜV Certified |

## Performance Warranty

|     |          |
|-----|----------|
| 90% | 10 years |
| 80% | 25 years |