

# 690~710 Watt

White Grid Glass Glass

HJT



MG690-710G12-132D4

## Key Features



### High Efficiency

Leading module efficiency in industry, up to 23%



### Hetero Junction Technology Half Cell

Series-then-parallel cell connection design, more reliable soldering technology



### High Reliability

Two times EL/Critical Visual inspection



### Excellent Anti-PID Performance

2 times of industry standard Anti-PID test



### Excellent Rear Side Power Generation

Bifaciality is up to 90%, up to 25% more energy yield than conventional modules



### Superior Low Irradiance Performance

Excellent low irradiance performance, increase power generation in low-light conditions like mornings, evenings and cloudy days

## Product and Quality Certifications

IEC 61215, IEC 61730

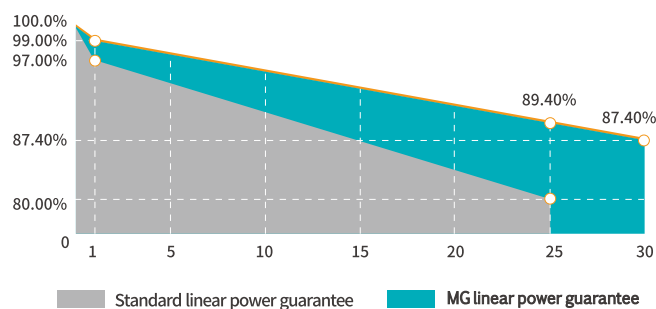
ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety Management System

IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test

IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test



### Electrical Characteristics (STC\*)

|                                 |               |        |        |        |        |        |        |
|---------------------------------|---------------|--------|--------|--------|--------|--------|--------|
| Maximum Power (Pmax)            | 680W          | 685W   | 690W   | 695W   | 700W   | 705W   | 710W   |
| Module Efficiency (%)           | 21.89%        | 22.05% | 22.21% | 22.37% | 22.53% | 22.70% | 22.86% |
| Optimum Operating Voltage (Vmp) | 41.49V        | 41.65V | 41.80V | 41.95V | 42.10V | 42.25V | 42.39V |
| Optimum Operating Current (Imp) | 16.39A        | 16.45A | 16.51A | 16.57A | 16.63A | 16.69A | 16.75A |
| Open Circuit Voltage (Voc)      | 49.50V        | 49.66V | 49.82V | 49.98V | 50.13V | 50.29V | 50.44V |
| Short Circuit Current (Isc)     | 17.19A        | 17.25A | 17.31A | 17.37A | 17.43A | 17.49A | 17.55A |
| Operating Module Temperature    | -40 to +85 °C |        |        |        |        |        |        |
| Maximum System Voltage          | DC1500V (IEC) |        |        |        |        |        |        |
| Maximum Series Fuse             | 30A           |        |        |        |        |        |        |
| Power Tolerance                 | 0~+5W         |        |        |        |        |        |        |
| Bifaciality                     | 85% ± 5%      |        |        |        |        |        |        |

\*STC: Irradiance 1000 W/m<sup>2</sup>, cell temperature 25 °C, AM=1.5. Tolerance of Pmax is within +/- 3%.

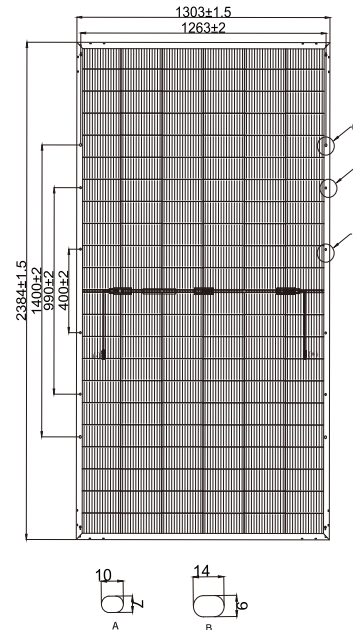
### Bstc\*\*

|                                 |        |        |        |        |        |        |        |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|
| Maximum Power (Pmax)            | 750W   | 755W   | 760W   | 765W   | 770W   | 775W   | 780W   |
| Optimum Operating Voltage (Vmp) | 41.49V | 41.65V | 41.80V | 41.95V | 42.10V | 42.25V | 42.39V |
| Optimum Operating Current (Imp) | 18.08A | 18.13A | 18.19A | 18.24A | 18.29A | 18.35A | 18.41A |
| Open Circuit Voltage (Voc)      | 49.50V | 49.66V | 49.82V | 49.98V | 50.13V | 50.29V | 50.44V |
| Short Circuit Current (Isc)     | 18.96A | 19.01A | 19.07A | 19.12A | 19.17A | 19.22A | 19.28A |

\*\*BSTC: Front side irradiation 1000W/m<sup>2</sup>, back side reflection irradiation 135W/m<sup>2</sup>, AM=1.5, ambient temperature 25 °C.

### Mechanical Specifications

|                  |   |
|------------------|---|
| Cell Type        | HJT Mono 210 × 105mm  |
| Cell Connection  | 132 (6 × 22)  |
| Module Dimension | 2384 × 1303 × 35 mm   |
| Weight           | 38.7 kg   |
| Junction Box     | IP68  |
| Output Cable     | 4mm <sup>2</sup> , 300mm in length, length can be customized / UV resistant |
| Connectors Type  | MC4 original / MC4 compatible   |
| Frame            | Anodised aluminum alloy   |
| Encapsulant      | EPE   |
| Front Load       | 5400 Pa   |
| Rear Load        | 2400 Pa   |
| Glass Thickness  | (F) 2.0mm anti-reflective solar glass   (B) 2.0mm solar glass               |



### Temperature Characteristics

|                                     |              |
|-------------------------------------|--------------|
| Nominal Operating Cell Temp. (NOCT) | 44 °C ± 2 °C |
| Temperature Coefficient of Pmax     | -0.26%/ °C   |
| Temperature Coefficient of Voc      | -0.24%/ °C   |
| Temperature Coefficient of Isc      | 0.04%/ °C    |

### Safety & Warranty

|                      |                         |
|----------------------|-------------------------|
| Safety Class         | Class II                |
| Product Warranty     | 15 yrs Workmanship      |
| Performance Warranty | 30 yrs Linear Warranty* |

\* Less than 1% attenuation in the 1st year, the annual attenuation from the 2nd year is no more than 0.375%, and the power is no less than 88% until the 30th year.