

## MS G3 Series

5-10kW | Single Phase | 3 MPPTs

The MS G3 single-phase inverters of 5-10kW provide powerful and versatile solution options for residential buildings. This model boasts 3 MPPTs for various complex rooftops, thus leading to high power efficiency. The ultra-low 50V startup voltage allows inverters to kick in earlier during the day and presents more power generation. In addition, by supporting up to 20A DC max. input current per MPPT, the MS G3 Series is ideal for high-power modules, which makes full use of power generated and presents lower LCOE. Importantly, optional PID (potential induced degradation) recovery function is supported for better module performance. The inverter also takes safety measures including optional Arc-Fault Circuit Interrupter (AFCI) and Type III Surge Protection Device (SPD) on both DC & AC sides to protect the system from electrical fire and lightning hazards in extreme environments.



### Smart Control & Monitoring

- Smart load control with dry contacts
- 24-hour load consumption monitoring



### High Power Generation

- Up to 20A max. DC input current per string
- Optional PID recovery function<sup>1</sup>



### Superb Safety & Reliability

- Optional AFCI & rapid shutdown<sup>1</sup>
- IP66 ingress protection



### Friendly & Thoughtful Design

- Fanless cooling for quiet operation
- Software updates via USB

<sup>1</sup>: Optional functions or devices are purchased separately.

| Technical Data                                            | GW5000-MS-30 | GW6000-MS-30 | GW7000-MS-30                                    | GW8500-MS-30                                      | GW9900-MS-30 | GW10K-MS-30        |
|-----------------------------------------------------------|--------------|--------------|-------------------------------------------------|---------------------------------------------------|--------------|--------------------|
| Input                                                     |              |              |                                                 |                                                   |              |                    |
| Max. Input Power (W)                                      | 7750         | 9300         | 10850                                           | 13175                                             | 15500        | 15500              |
| Max. Input Voltage (V)                                    |              |              |                                                 | 600                                               |              |                    |
| MPPT Operating Voltage Range (V)                          |              |              |                                                 | 40 ~ 560                                          |              |                    |
| PV Input Operating Voltage Range (V)                      |              |              |                                                 | 40 ~ 600                                          |              |                    |
| Start-up Voltage (V)                                      |              |              |                                                 | 50                                                |              |                    |
| Nominal Input Voltage (V)                                 |              |              |                                                 | 360                                               |              |                    |
| Max. Input Current per MPPT (A)                           |              |              |                                                 | 20                                                |              |                    |
| Max. Short Circuit Current per MPPT (A)                   |              |              |                                                 | 25                                                |              |                    |
| Number of MPP Trackers                                    |              |              |                                                 | 3                                                 |              |                    |
| Number of Strings per MPPT                                |              |              |                                                 | 1                                                 |              |                    |
| Output                                                    |              |              |                                                 |                                                   |              |                    |
| Nominal Output Power (W)                                  | 5000         | 6000         | 7000                                            | 8500                                              | 9990         | 10000              |
| Nominal Output Apparent Power (VA)                        | 5000         | 6000         | 7000                                            | 8500                                              | 9990         | 10000              |
| Max. AC Active Power (W) <sup>*1~*10</sup>                | 5500         | 6600         | 7700                                            | 9350                                              | 9990         | 10000              |
| Max. AC Apparent Power (VA) <sup>*2~*10</sup>             | 5500         | 6600         | 7700                                            | 9350                                              | 9990         | 10000              |
| Nominal Output Voltage (V)                                |              |              |                                                 | 220 / 230 / 240                                   |              |                    |
| Output Voltage Range (V)<br>(according to local standard) |              |              |                                                 | 160 ~ 270                                         |              |                    |
| Nominal AC Grid Frequency (Hz)                            |              |              |                                                 | 50 / 60                                           |              |                    |
| AC Grid Frequency Range (Hz)                              |              |              |                                                 | 45 ~ 55 / 55 ~ 65                                 |              |                    |
| Max. Output Current (A) <sup>*3</sup>                     | 24.0         | 28.7         | 33.5                                            | 40.7                                              | 43.4         | 43.5 <sup>*9</sup> |
| Rated Output Current(A)                                   | 24.0         | 28.7         | 33.5                                            | 40.7                                              | 43.1         | 43.5 <sup>*9</sup> |
| Power Factor                                              |              |              | ~1 (Adjustable from 0.8 leading to 0.8 lagging) |                                                   |              |                    |
| Max. Total Harmonic Distortion                            |              |              | <3%                                             |                                                   |              |                    |
| Efficiency                                                |              |              |                                                 |                                                   |              |                    |
| Max. Efficiency <sup>*5</sup>                             | 97.8%        | 97.8%        | 97.7%                                           | 97.9%                                             | 97.9%        | 97.9%              |
| European Efficiency <sup>*6</sup>                         | 97.2%        | 97.2%        | 97.1%                                           | 97.3%                                             | 97.3%        | 97.3%              |
| Protection                                                |              |              |                                                 |                                                   |              |                    |
| PV String Current Monitoring                              |              |              |                                                 | Integrated                                        |              |                    |
| PV Insulation Resistance Detection                        |              |              |                                                 | Integrated                                        |              |                    |
| Residual Current Monitoring                               |              |              |                                                 | Integrated                                        |              |                    |
| PV Reverse Polarity Protection                            |              |              |                                                 | Integrated                                        |              |                    |
| Anti-islanding Protection                                 |              |              |                                                 | Integrated                                        |              |                    |
| AC Overcurrent Protection                                 |              |              |                                                 | Integrated                                        |              |                    |
| AC Short Circuit Protection                               |              |              |                                                 | Integrated                                        |              |                    |
| AC Overvoltage Protection                                 |              |              |                                                 | Integrated                                        |              |                    |
| DC Switch                                                 |              |              |                                                 | Integrated                                        |              |                    |
| DC Surge Protection                                       |              |              |                                                 | Type III (Type II Optional)                       |              |                    |
| AC Surge Protection                                       |              |              |                                                 | Type III (Type II Optional)                       |              |                    |
| AFCI                                                      |              |              |                                                 | Optional                                          |              |                    |
| PID Recovery                                              |              |              |                                                 | Optional                                          |              |                    |
| Power Supply at Night                                     |              |              |                                                 | Optional                                          |              |                    |
| General Data                                              |              |              |                                                 |                                                   |              |                    |
| Operating Temperature Range (°C)                          |              |              |                                                 | -25 ~ +60                                         |              |                    |
| Relative Humidity                                         |              |              |                                                 | 0 ~ 100%                                          |              |                    |
| Max. Operating Altitude (m)                               |              |              |                                                 | 4000                                              |              |                    |
| Cooling Method                                            |              |              |                                                 | Natural Convection                                |              |                    |
| User Interface                                            |              |              |                                                 | LED, LCD (Optional), WLAN + APP                   |              |                    |
| Communication                                             |              |              |                                                 | RS485, Wifi + Lan + Bluetooth or 4G (Optional)    |              |                    |
| Communication Protocols                                   |              |              |                                                 | Modbus-RTU (SunSpec Compliant)                    |              |                    |
| Weight (kg)                                               |              |              |                                                 | 19.0                                              |              |                    |
| Dimension (W × H × D mm)                                  |              |              |                                                 | 441 × 507 × 210                                   |              |                    |
| Noise Emission (dB)                                       |              |              |                                                 | <30                                               |              |                    |
| Topology                                                  |              |              |                                                 | Non-isolated                                      |              |                    |
| Self-consumption at Night (W)                             |              |              |                                                 | <1                                                |              |                    |
| Ingress Protection Rating                                 |              |              |                                                 | IP66                                              |              |                    |
| DC Connector                                              |              |              |                                                 | MC4 (2.5 ~ 4mm <sup>2</sup> )                     |              |                    |
| AC Connector                                              |              |              |                                                 | Plug and play connector (Max. 16mm <sup>2</sup> ) |              |                    |
| Country of Manufacture                                    |              |              |                                                 | China                                             |              |                    |

\*1: For Brazil Max. AC Active Power (W) GW7000-MS-30 is 7000, GW8500-MS-30 is 8500.

\*2: For Brazil Max. AC Apparent Power (VA) GW7000-MS-30 is 7000, GW8500-MS-30 is 8500.

\*3: For Brazil Max. Output Current (A) GW7000-MS-30 is 33.5, GW8500-MS-30 is 40.7, GW10K-MS-30 is 45.5.

\*4: For Brazil Max. Efficiency GW7000-MS-30 is 97.5%, GW8500-MS-30 is 97.8%, GW10K-MS-30 is 97.8%.

\*5: For Brazil European Efficiency GW7000-MS-30 is 97.0%, GW8500-MS-30 is 97.2%, GW10K-MS-30 is 97.2%.

\*6: When the Nominal Output Voltage (V) is 220, Max. Output Current (A) & Nominal Output Current (A) GW10K-MS-30 is 45.5.

\*: Please visit GoodWe website for the latest certificates.