

# GOODWE

## MS Series

### 5-10kW | 3 MPPTs | Single Phase

The MS Series of 5-10kW single phase inverters with 3 MPPTs for complex rooftops, is a powerful and versatile solution for the expanding need of the residential market. It is truly a champion over the competition in terms of DC oversizing, offering as much as 200% and achieving up to 110% AC overloading. With a start-up voltage of only 80V, the MS series is able to generate electricity earlier than equivalent products, achieving a high efficiency of 97.7%. The MS is compatible with bi-facial modules and its maximum current input reaches 16 A per string. The MS also comes with integrated Arc-Fault Circuit Interrupter (AFCI) protection and is lightweight for easy installation.



Compatible with bi-facial modules



97.7% max. Efficiency



3 MPPTs



Up to 110% AC output overloading



80V Startup Voltage



Up to 200% DC input oversizing

| Technical Data                            | GW5000-MS                                        | GW6000-MS                    | GW8500-MS                    | GW10K-MS                     |
|-------------------------------------------|--------------------------------------------------|------------------------------|------------------------------|------------------------------|
| <b>Input</b>                              |                                                  |                              |                              |                              |
| Max.Input Power (W)                       | 10000                                            | 12000                        | 13500                        | 13500                        |
| Max.Input Voltage (V)                     | 600                                              | 600                          | 600                          | 600                          |
| MPPT Operating Voltage Range (V)          | 80 ~ 550                                         | 80 ~ 550                     | 80 ~ 550                     | 80 ~ 550                     |
| Start-up Voltage (V)                      | 80                                               | 80                           | 80                           | 80                           |
| Nominal Input Voltage (V)                 | 360                                              | 360                          | 360                          | 360                          |
| Max. Input Current per MPPT (A)           | 16                                               | 16                           | 16                           | 16                           |
| Max. Short Circuit Current per MPPT (A)   | 20                                               | 20                           | 20                           | 20                           |
| Number of MPP Trackers                    | 3                                                | 3                            | 3                            | 3                            |
| Number of Strings per MPPT                | 1                                                | 1                            | 1                            | 1                            |
| <b>Output</b>                             |                                                  |                              |                              |                              |
| Nominal Output Power (W)                  | 5000                                             | 6000                         | 8500                         | 10000                        |
| Nominal Output Apparent Power (VA)        | 5000                                             | 6000                         | 8500                         | 10000                        |
| Max. AC Active Power (W) <sup>*1</sup>    | 5500                                             | 6600                         | 9350                         | 10000                        |
| Max. AC Apparent Power (VA) <sup>*2</sup> | 5500                                             | 6600                         | 9350                         | 10000                        |
| Nominal Output Voltage (V)                | 220 / 230 / 240                                  | 220 / 230 / 240              | 220 / 230 / 240              | 220 / 230 / 240              |
| Nominal AC Grid Frequency (Hz)            | 50 / 60                                          | 50 / 60                      | 50 / 60                      | 50 / 60                      |
| Max. Output Current (A)                   | 25.0                                             | 30.0                         | 42.5                         | 45.5                         |
| Power Factor                              | ~ 1 (Adjustable from 0.8 leading to 0.8 lagging) |                              |                              |                              |
| Max. Total Harmonic Distortion            | <3%                                              | <3%                          | <3%                          | <3%                          |
| <b>Efficiency</b>                         |                                                  |                              |                              |                              |
| Max. Efficiency                           | 97.7%                                            | 97.7%                        | 97.7%                        | 97.7%                        |
| European Efficiency                       | 97.3%                                            | 97.3%                        | 97.3%                        | 97.3%                        |
| <b>Protection</b>                         |                                                  |                              |                              |                              |
| PV Insulation Resistance Detection        | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| Residual Current Monitoring               | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| PV Reverse Polarity Protection            | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| Anti-islanding Protection                 | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| AC Overcurrent Protection                 | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| AC Short Circuit Protection               | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| AC Overvoltage Protection                 | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| DC Switch                                 | Integrated                                       | Integrated                   | Integrated                   | Integrated                   |
| DC Surge Protection                       | Type II                                          | Type II                      | Type II                      | Type II                      |
| AC Surge Protection                       | Type III (Type II Optional)                      |                              |                              |                              |
| AFCI                                      | Optional                                         | Optional                     | Optional                     | Optional                     |
| Remote Shutdown                           | Optional                                         | Optional                     | Optional                     | Optional                     |
| <b>General Data</b>                       |                                                  |                              |                              |                              |
| Operating Temperature Range (°C)          | -25 ~ +60                                        | -25 ~ +60                    | -25 ~ +60                    | -25 ~ +60                    |
| Relative Humidity                         | 0 ~ 100%                                         | 0 ~ 100%                     | 0 ~ 100%                     | 0 ~ 100%                     |
| Max. Operating Altitude (m)               | 3000                                             | 3000                         | 3000                         | 3000                         |
| Cooling Method                            | Natural Convection                               | Natural Convection           | Natural Convection           | Natural Convection           |
| User Interface                            | LED, LCD                                         | LED, LCD                     | LED, LCD                     | LED, LCD                     |
| Communication                             | WiFi, RS485 or LAN (Optional)                    |                              |                              |                              |
| Communication Protocols                   | Modbus-RTU (SunSpec Compliant)                   |                              |                              |                              |
| Weight (kg)                               | 22.5                                             | 22.5                         | 22.5                         | 22.5                         |
| Dimension (W × H × D mm)                  | 511 × 415 × 175                                  | 511 × 415 × 175              | 511 × 415 × 175              | 511 × 415 × 175              |
| Topology                                  | Non-isolated                                     | Non-isolated                 | Non-isolated                 | Non-isolated                 |
| Self-consumption at Night (W)             | <1                                               | <1                           | <1                           | <1                           |
| Ingress Protection Rating                 | IP65                                             | IP65                         | IP65                         | IP65                         |
| DC Connector                              | MC4 (4 ~ 6 mm <sup>2</sup> )                     | MC4 (4 ~ 6 mm <sup>2</sup> ) | MC4 (4 ~ 6 mm <sup>2</sup> ) | MC4 (4 ~ 6 mm <sup>2</sup> ) |
| AC Connector                              | AC Connector                                     | AC Connector                 | AC Connector                 | AC Connector                 |
| Country of Manufacture                    | China                                            | China                        | China                        | China                        |

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

\*1: For Belgium Max. AC Active Power (W): GW5000-MS is 5000, GW6000-MS is 6000, GW7000-MS is 7000, GW8500-MS is 8500, GW10K-MS is 10000.

\*2: For Belgium Max.Output Apparent Power (VA): GW5000-MS is 5000, GW6000-MS is 6000, GW7000-MS is 7000, GW8500-MS is 8500, GW10K-MS is 10000.