

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, 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 II 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
- PID recovery function



Superb Safety & Reliability

- Optional AFCI & rapid shutdown¹
- IP66 ingress protection



Friendly & Thoughtful Design

- Fanless cooling for quiet operation
- Software updates via USB

Technical Data	GW5000-MS-30	GW6000-MS-30	GW7000-MS-30	GW8500-MS-30	GW10K-MS-30
Input					
Max. Input Voltage (V)	600				
MPPT Operating Voltage Range (V)	40 ~ 560				
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	10000
Nominal Output Apparent Power (VA)	5000	6000	7000	8500	10000
Max. AC Active Power (W) ¹¹⁷	5500	6600	7700	9350	10000
Max. AC Apparent Power (VA) ²⁷	5500	6600	7700	9350	10000
Nominal Output Voltage (V)	220 / 230 / 240				
Output Voltage Range (V) (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) ³	24.0	28.7	33.5	40.7	43.5 ⁶
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion	<3%				
Efficiency					
Max. Efficiency ⁴	97.8%	97.8%	97.7%	97.9%	97.9%
European Efficiency ⁵	97.2%	97.2%	97.1%	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				
Rapid Shutdown	Optional				
Remote Shutdown	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, Modbus TCP				
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 ²)				
AC Connector	Plug and play connector (Max. 16mm ²)				

*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 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.

*7: For Chile and Sri Lanka Max. AC Active Power (W) & Max. Output Apparent Power (VA) GW5000-MS-30 is 5000, GW6000-MS-30 is 6000, GW7000-MS-30 is 7000, GW8500-MS-30 is 8500, GW10K-MS-30 is 10000.

*: Please visit GoodWe website for the latest certificates.

*: All pictures shown are for reference only. Actual appearance may vary.