

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 function¹



Superb Safety & Reliability

- Optional AFCI & rapid shutdown¹
- IP66 ingress protection



Friendly & Thoughtful Design

- Fanless cooling for quiet operation
- Software updates via USB

¹: Optional functions or devices are purchased separately.

Technical Data	GW5000-MS-30	GW6000-MS-30	GW8500-MS-30	GW10K-MS-30
Input				
Max. Input Power (W) ⁸	7750	9300	13175	15500
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	8500	10000
Nominal Output Apparent Power (VA)	5000	6000	8500	10000
Max. AC Active Power (W) ^{1,7}	5500	6600	9350	10000
Max. AC Apparent Power (VA) ^{2,7}	5500	6600	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	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%	97.9%	97.9%
European Efficiency ⁵	97.2%	97.2%	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	
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			WiFi, RS485 or LAN (Optional)	
Communication Protocols			Modbus-RTU (SunSpec Compliant)	
Weight (kg)			19.0	
Dimension (W x H x D mm)			441 x 507 x 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)	
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: For where the Nominal Output Voltage (V) is 220, Max. Output Current (A) GW10K-MS-30 is 45.5, Nominal Output Current (A) GW10K-MS-30 is 45.5.

*7: For Chile 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.

*8: For Brazil Max. Input Power (W), GW5000-MS-30 is 9000, GW6000-MS-30 is 10800, GW8500-MS-30 is 15300, GW10K-MS-30 is 18000.

*: Please visit GoodWe website for the latest certificates.