

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

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) ^{*1*10}	5500	6600	7700	9350	9990	10000
Max. AC Apparent Power (VA) ^{*2*10}	5500	6600	7700	9350	9990	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	43.4	43.5 ^{*9}
Rated Output Current(A)	24.0	28.7	33.5	40.7	43.1	43.5 ^{*9}
Power Factor			~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Max. Total Harmonic Distortion			<3%			
Efficiency						
Max. Efficiency ^{*5}	97.8%	97.8%	97.7%	97.9%	97.9%	97.9%
European Efficiency ^{*6}	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 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: 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.

** : Please refer to the user manual for the MPPT Voltage Range at Nominal Power.