



MS Series

5-10kW | Single Phase | 3 MPPTs

The MS Series of 5-10kW single phase inverter with 3 MPPTs for complex rooftops is a powerful and versatile solution for the expanding needs of residential usage. 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 startup voltage of only 80V, the MS series can generate electricity earlier than equivalent products. This considerably low startup voltage means that the solar system can generate power from dawn to dusk to harness as much solar energy as possible, even in very weak sunshine or poor weather conditions. The MS is compatible with bi-facial modules and its maximum current input reaches 16A per string.



Smart Control & Monitoring

- Power export limit
- Load consumption monitoring



High Power Generation

- Up to 16A max. DC input current per string
- Up to 200% DC input oversizing & 110% AC output overloading



Superb Safety & Reliability

- IP65 ingress protection
- Quality and robust components



Friendly & Thoughtful Design

- Fanless cooling for quiet operation
- Elegant and compact design

Technical Data	GW5000-MS	GW6000-MS	GW7000-MS	GW8500-MS	GW10K-MS
Input					
Max. Input Voltage (V)	600	600	600	600	600
MPPT Operating Voltage Range (V)	80 ~ 550	80 ~ 550	80 ~ 550	80 ~ 550	80 ~ 550
Start-up Voltage (V)	80	80	80	80	80
Nominal Input Voltage (V)	360	360	360	360	360
Max. Input Current per MPPT (A)	16	16	16	16	16
Max. Short Circuit Current per MPPT (A)	20	20	20	20	20
Number of MPP Trackers	3	3	3	3	3
Number of Strings per MPPT	1	1	1	1	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)	5500	6600	7700	9350	10000
Max. AC Apparent Power (VA)	5500	6600	7700	9350	10000
Nominal Output Voltage (V)	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240	220 / 230 / 240
Output Voltage Range (V) (according to local standard)	180 ~ 265	180 ~ 265	180 ~ 265	180 ~ 265	180 ~ 265
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65	45 ~ 55 / 55 ~ 65	45 ~ 55 / 55 ~ 65	45 ~ 55 / 55 ~ 65	45 ~ 55 / 55 ~ 65
Max. Output Current (A)	25.0	30.0	35.0	42.5	45.5
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)				
Max. Total Harmonic Distortion	<3%	<3%	<3%	<3%	<3%
Efficiency					
Max. Efficiency	97.7%	97.7%	97.7%	97.7%	97.7%
European Efficiency	97.3%	97.3%	97.3%	97.3%	97.3%
Protection					
PV Insulation Resistance Detection	Integrated	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring	Integrated	Integrated	Integrated	Integrated	Integrated
PV Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overcurrent Protection	Integrated	Integrated	Integrated	Integrated	Integrated
AC Short Circuit Protection	Integrated	Integrated	Integrated	Integrated	Integrated
AC Overvoltage Protection	Integrated	Integrated	Integrated	Integrated	Integrated
DC Switch	Integrated	Integrated	Integrated	Integrated	Integrated
DC Surge Protection	Type II	Type II	Type II	Type II	Type II
AC Surge Protection	Type III (Type II Optional)				
AFCI	Optional	Optional	Optional	Optional	Optional
Remote Shutdown	Optional	Optional	Optional	Optional	Optional
General Data					
Operating Temperature Range (°C)	-25 ~ +60	-25 ~ +60	-25 ~ +60	-25 ~ +60	-25 ~ +60
Relative Humidity	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%	0 ~ 100%
Max. Operating Altitude (m) ^{**}	4000	4000	4000	4000	4000
Cooling Method	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Natural Convection
User Interface	LED, LCD, WLAN + APP				
Communication	WiFi, RS485 or LAN (Optional)				
Communication Protocols	Modbus-RTU (SunSpec Compliant)				
Weight (kg)	22.5	22.5	22.5	22.5	22.5
Dimension (W × H × D mm)	415 × 511 × 175	415 × 511 × 175	415 × 511 × 175	415 × 511 × 175	415 × 511 × 175
Topology	Non-isolated	Non-isolated	Non-isolated	Non-isolated	Non-isolated
Self-consumption at Night (W)	<1	<1	<1	<1	<1
Ingress Protection Rating	IP65	IP65	IP65	IP65	IP65
DC Connector	MC4 (4 ~ 6mm ²)	MC4 (4 ~ 6mm ²)	MC4 (4 ~ 6mm ²)	MC4 (4 ~ 6mm ²)	MC4 (4 ~ 6mm ²)
AC Connector	AC Connector	AC Connector	AC Connector	AC Connector	AC Connector

*1: For Australia Max. Operating Altitude (m) is 3000.

*: Please visit GoodWe website for the latest certificates.