

SMT Series

50-80kW | Three phase | 6 MPPTs

The SMT Series string inverters, available in 50kW to 80kW capacities, are designed to meet the demands of commercial and industrial (C&I) applications by delivering high energy yields and exceptional power density. The 50kW model is specifically engineered for low-voltage (127/220Vac) commercial installations.

Specifically tailored to accommodate high-power PV modules, it boasts multiple MPPTs and a high input current of 21A per DC string, ensuring optimized overall yield. Safety is paramount, with both DC and AC sides featuring Type II surge protection, while AFCI is available as an optional feature.



Smart Control & Monitoring

- Remote data monitoring
- Compatible with multiple communication methods



High Power Generation for High Returns

- Up to 180% DC input oversizing¹
- 6 MPPTs, Max. efficiency 98.6%



Superb Safety & Reliability

- Type II Surge Protection for both DC and AC
- IP66 protection for outdoor installation safety
- AFCI optional²



Flexible & Adaptable Applications

- Compatible with 182/210mm modules
- Wide input operating voltage range

^{*1}: Applies only to GW50K-SMT-L-G10. The GW80K-SMT supports DC input oversizing of up to 150%.

^{*2}: Optional functions or devices are purchased separately.

Technical Data	GW50K-SMT-L-G10	GW80K-SMT
Input		
Max. Input Voltage (V)	900 ⁶	1100 ⁵
MPPT Operating Voltage Range (V)	180 ~ 800	180 ~ 1000
Start-up Voltage (V)	180	200
Nominal Input Voltage (V)	370	600
Max. Input Current per MPPT (A)		42
Max. Short Circuit Current per MPPT (A)		52.5
Number of MPP Trackers		6
Number of Strings per MPPT		2
Output		
Nominal Output Power (kW)	50	80
Nominal Output Apparent Power (kVA)	50	80
Max. AC Active Power (kW)	50	88 ¹
Max. AC Apparent Power (kVA)	50	88 ²
Nominal Output Voltage (V)	127 / 220, 3L / N / PE or 3L / PE	220 / 380, 230 / 400, 3L / N / PE or 3L / PE
Output Voltage Range (V)	176 ~ 246	323 ~ 457
Nominal AC Grid Frequency (Hz)		50 / 60
AC Grid Frequency Range (Hz)		45 ~ 55 / 55 ~ 65
Max. Output Current (A)	131.2	128.0
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)	
Max. Total Harmonic Distortion		<3%
Efficiency		
Max. Efficiency		98.6%
European Efficiency		98.1%
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 II (Type I + II Optional)
AC Surge Protection		Type II
AFCI	Optional ³	Optional
Emergency Power Off	-	Optional
Rapid Shutdown		Optional
Remote Shutdown	Optional ³	Optional
PID Recovery		Optional
Reactive Power Compensation at Night		Optional
Power Supply at Night		Optional
General Data		
Operating Temperature Range (°C)		-30 ~ +60
Relative Humidity		0 ~ 100%
Max. Operating Altitude (m)		4000
Cooling Method		Smart Fan Cooling
User Interface	LED, LCD (Optional), APP	LED, APP
Communication	RS485, WiFi + LAN + Bluetooth ⁴	RS485, WiFi or LAN or 4G
Communication Protocols	Modbus-RTU, (SunSpec Compliant)	Modbus-RTU
Weight (kg)		64
Dimension (W x H x D mm)		700 x 550 x 260
Topology		Non-isolated
Self-consumption at Night (W)		<1
Ingress Protection Rating		IP66
DC Connector		MC4 (4 ~ 6mm ²)
AC Connector		OT / DT terminal (Max. 150mm ²)
Mounting Method		Wall Mounted

*1: For Chile Max. AC Active Power (kW): GW80K-SMT is 80.

*2: For Chile Max. AC Apparent Power (kVA): GW80K-SMT is 80.

*3: For Brazil, AFCI and Remote Shutdown are integrated.

*4: For Brazil: communication is RS485, WiFi + Bluetooth, WiFi + LAN + Bluetooth (Optional).

*5: When the input voltage ranges from 1000V to 1100V, the inverter will enter the standby state. When the input voltage returns to the MPPT operating voltage range, the inverter will resume normal operating state.

*6: When the input voltage ranges from 800V to 900V, the inverter will enter the standby state. When the input voltage returns to the MPPT operating voltage range, the inverter will resume normal operating state.

*: Please visit GoodWe website for the latest certificates.

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

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