

Maximised energy yield for high-power PV rooftops

- ✓ Maximised energy output
- ✓ Smart and silent operation
- ✓ Enhanced performance
- ✓ Highest safety standards

A perfect fit for three-phase commercial and industrial (C&I) systems with high-power PV modules, the SDT G3 inverters, available in 50kW, allow for high current input. The inverters are designed for silent operation, while the integrated Type II surge protection on both AC and DC sides enhances overall safety. With its compact 33kg design, the inverter is lightweight, making installation and maintenance straightforward.

-  21A per string & 180% PV oversizing
-  AI-driven AFCI 3.0 for safety
-  Compact and lightweight design



Technical Data		GW50K-SDT-C30
Input		
Max. Input Voltage (V)		1100 ^{*1}
MPPT Operating Voltage Range (V) ^{*2}		140 ~ 1000
Start-up Voltage (V)		160
Nominal Input Voltage (V)		600
Max. Input Current per MPPT (A)		40
Max. Short Circuit Current per MPPT (A)		52
Number of MPP Trackers		4
Number of Strings per MPPT		2
Output		
Nominal Output Power (W)		50000
Nominal Output Apparent Power (VA)		50000
Max. AC Active Power (W)		50000
Max. AC Apparent Power (VA)		50000
Nominal Output Voltage (V)		220 / 380, 230 / 400, 240 / 415, 3L / N / PE or 3L / PE
Output Voltage Range (V)		180 ~ 280 (according to local standard)
Nominal AC Grid Frequency (Hz)		50 / 60
AC Grid Frequency Range (Hz)		45 ~ 55 / 55 ~ 65
Max. Output Current (A)		75.7@380Vac
Power Factor		~1 (Adjustable from 0.8 leading to 0.8 lagging)
Max. Total Harmonic Distortion		<3%
Efficiency		
Max. Efficiency		98.7%
European Efficiency		98.0%
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
AC Surge Protection		Type II
AFCI		Optional
Remote Shutdown		Integrated
PID Recovery		Optional
Power Supply at Night		Optional
Shadow Scanning		Integrated
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), WiFi + LAN + Bluetooth
Communication		RS485, WIFI + LAN + Bluetooth
Communication Protocols		Modbus-RTU (SunSpec Compliant), Modbus-TCP
Weight (kg)		33
Dimension (W x H x D mm)		646 x 484 x 230
Noise Emission (dB)		<50
Topology		Non-isolated
Self-consumption at Night (W)		<1 (Without AC SPS)
Ingress Protection Rating		IP66
DC Connector		MC4 (4 ~ 6mm ²)
AC Connector		OT / DT terminal (Max. 70mm ²)

*1: When the input voltage is 1000V-1100V, the inverter will enter standby mode. The inverter will return to normal operation state when the voltage returns to the MPPT working voltage range.

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

*: Please visit GoodWe website for the latest certificates.

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