

GOODWE

SDT G3 Series

50kW | Three Phase | 4 MPPTs

The SDT G3 Series inverter, with a 50kW capacity, delivers exceptional performance. It excels in being able to operate at an ultra-low noise level of under 50 dB, ensuring its suitability for a wide range of commercial and industrial (C&I) applications, especially in noise-sensitive environments, such as schools and hospitals.



High Power Generation

- 4 MPPTs, Max. efficiency 98.7%
- 21A per string & 180% PV oversizing



Cost-Effective Design

- Support aluminum cable for lower LCOE
- String-level monitoring for easy O&M



Superb Safety & Reliability

- AI-driven AFCI 3.0 for safety¹
- Type II SPD on both AC and DC sides
- IP66 ingress protection



Friendly & Thoughtful Design

- Operate quietly at under 50dB
- Compact design for easy installation

1: Optional functions or devices are purchased separately.

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 ^{*3}		Optional
Emergency Power Off		Optional
Rapid Shutdown		Optional
Remote Shutdown		Optional
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 ^{*4}
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.

*3: For Brazil and Colombia is Integrated.

*4: For Brazil, WiFi+Bluetooth is standard.

*: Please visit GoodWe website for the latest certificates.

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