

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 50dB, 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%
- 20A 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 Power (kW)		75
Max. PV Input Power (kW)		90
Max. Input Voltage (V) ¹		1100
MPPT Operating Voltage Range (V) ^{2,3}		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)		50
Nominal Output Apparent Power (VA)		50
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
Rated Output Current (A)		180.4 @ 230 / 400 Vac, 173.9 @ 240 / 415 Vac
Max. Output Fault Current (Peak and Duration) (A)		230 @ 4.36μs
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
Rapid Shutdown		Optional
Remote Shutdown		Integrated
PID Recovery		Optional
Power Supply at Night		Optional
Shadow Scanning		Integrated
General Data		
Operating Temperature Range (°C)		-30 ~ +60
Cooling Method		Smart Fan Cooling
User Interface		LED, LCD (Optional), WLAN + APP
Communication		WiFi + Lan + Bluetooth or 4G + Bluetooth (optional)
Communication Protocols		ModbusRTU, ModbusTCP
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
Ingress Protection Rating		IP66
Anti-corrosion Class		C4
Country of Manufacture		China

*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: The PV input voltage should be higher than the Max. MPPT Voltage at Nominal Power.

*: Please visit GoodWe website for the latest certificates.