GOODWE

SDT G3 Series

30-50kW I Three Phase I 2-4 MPPTs

The SDT G3 Series inverter, available in 30-50kW capacities, delivers exceptional performance with ultra-low noise operation below 50dB, making it ideal for a wide range of commercial and industrial (C&I) applications, especially noise-sensitive environments such as schools and hospitals.

High Power Generation

· Up to 4 MPPTs, Max. efficiency 98.7%
· Max. 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 safety
· 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

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Technical Data	GW30K-SDT-C30	GW30K-SDT-30	GW33K-SDT-C30	GW36K-SDT-C30	GW40K-SDT-C30	GW40K-SDT-P30	GW50K-SDT-C30
Input							
Max. Input Voltage (V)[*1]				1100			
MPPT Operating Voltage Range (V)[*2]	140 ~ 1000	140 ~ 950	140 ~ 1000	140 ~ 1000	140 ~ 1000	140 ~ 1000	140 ~ 1000
Start-up Voltage (V)				160			
Nominal Input Voltage (V)				600			
Max. Input Current per MPPT (A)	42 / 32	40 / 40 / 40	42 / 42 / 32	42 / 42 / 32	42 / 42 / 32	40	40
Max. Short Circuit Current per MPPT (A)	52.5 / 40	50 / 50 / 50	52.5 / 52.5 / 40	52.5 / 52.5 / 40	52.5 / 52.5 / 40	56	52
Number of MPP Trackers	2	3	3	3	3	4	4
Number of Strings per MPPT				2			
Output							
Nominal Output Power (kW)	30	30	33	36	40	40	50
Nominal Output Apparent Power (kVA)	30	30	33	36	40	40	50
Max. AC Active Power (kW)	33	30	33	36	40	40	50
Max. AC Apparent Power (kVA)	33	30	33	36	40	40	50
Nominal Output Voltage (V)				220 / 380, 230 / 400, 240 / 415, 3L / N / PE or 3L / PE			
Output Voltage Range (V) (according to local standard)	180 ~ 280	180 ~ 260	180 ~ 280	180 ~ 280	180 ~ 280	180 ~ 280	180 ~ 280
Nominal AC Grid Frequency (Hz)	50 / 60	50 / 60	50	50	50	50 / 60	50 / 60
AC Grid Frequency Range (Hz)	45 ~ 55 / 55 ~ 65		45 ~ 55			45 ~ 55 / 55 ~ 65	
Max. Output Current (A)	50	45.5	50.1	54.6	60.7	60.6	75.7
Power Factor				~1 (Adjustable from 0.8 leading to 0.8 lagging)			
Max. Total Harmonic Distortion				<3%			
Efficiency							
Max. Efficiency	98.6%	98.7%	98.6%	98.6%	98.6%	98.6%	98.7%
European Efficiency	98.3%	98.3%	97.8%	97.8%	97.8%	97.7%	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 III (Type II Optional)	Type II	Type III (Type II Optional)			Type II	Type II
AC Surge Protection	Type III (Type II Optional)	Type II	Type III (Type II Optional)			Type II	Type II
AFCI				Optional			
Rapid Shutdown				Optional			
Remote Shutdown				Integrated			
PID Recovery				Optional			
Power Supply at Night				Optional			
General Data							
Operating TemperatureRange (°C)				-30 ~ +60			
Relative Humidity				0 ~ 100%			
Max. Operating Altitude (m)				4000			
Cooling Method				Smart Fan Cooling			
User Interface				LED, LCD (Optional), WLAN + APP			
Communication				RS485, WiFi + LAN + Bluetooth, 4G + Bluetooth (Optional)			
Communication Protocols	Modbus-RTU (SunSpec Compliant), Modbus-TCP		Modbus RTU, Modbus TCP				Modbus-RTU (SunSpec Compliant), Modbus-TCP
Weight (kg)	21.1	30	28	28	28	31	33
Dimension (W × H × D mm)	530 × 413 × 227		585 × 483 × 230			585 × 483 × 237	646 × 484 × 230
Noise Emission (dB)	45	45	45	45	45	45	50
Topology				Non-isolated			
Self-consumption at Night (W)				<1			
Ingress Protection Rating				IP66			
DC Connector				MC4 (4 ~ 6mm²)			
AC Connector	OT / DT terminal (Max. 25mm²)		OT / DT terminal (Max. 35mm²)				OT / DT terminal (Max. 70mm²)

*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.

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