

Three Phase Grid-Connection Inverter STH30-50KTG



High Yield & Efficiency

- SiC power components to increase power generation.
- 150% PV array oversizing, 110% AC output overloading, 16A input current per string, compatible with mainstream PV modules.
- Integrated anti-PID (Potential Induced Degradation) functions, significantly reduce the negative effect of PID.
- Low start-up voltage and wide MPPT voltage for more power generation time.

Safe & Reliable

- Type II AC&DC Surge Protection.
- Adaptable film bus capacitors to improve reliability of system.
- IP65 protection rating, C5 anti-corrosion rating, high environmental adaptability system Integration.
- Supporting AFCI protection, preventing sparking or arcing that may potentially cause electrical hazard.
- Built-in RS485, supports WiFi and 4G, firmware updates by USB ports or remotely.
- LED indicators for different status, LCD display for realtime data reading.

Aesthetic & Compact

- Screw free cover design, Integrated molding box without welding, good aesthetic & product stability and consistency.
- Light weight and compact size;
- Aluminum die-casting shell with reinforcing bars, 3-layer effective waterproof design for reliable harsh environment resistance.

Smart Management

- Supporting intelligent automatic I-V curve scanning for fault diagnosis, precisely positioning the abnormal string.
- Free online real-time monitoring of system power generation and energy management for end user, installer and retailer.

MODEL	STH30KTG	STH33KTG	STH36KTG	STH40KTG	STH50KTG
Max. Input Power	45 kW	49.5 kW	54 kW	60 kW	75 kW
Max. DC Voltage			1100 V		
Start-up Voltage			180 V		
Nominal Voltage			600 V		
MPPT Voltage Range			200-1000 V		
No. of MPP Trackers	3	3	3	4	4
No. of PV Strings per MPP Tracker			2		
Max. Input Current per MPP Tracker			32 A		
Max. Input short Current per MPP Tracker			40 A		
Output Data (AC)					
Nominal Output Power	30 kW	33 kW	36 kW	40 kW	50 kW
Max. AC Apparent Power	33 kVA	36 kVA	39.6 kVA	44 kVA	55 kVA
Nominal AC Voltage			230/400 V, 3L/N/PE or 3L/PE		
AC Grid Frequency			50/60 Hz		
Frequency Range			(45-55)/(55-65) Hz		
Max. Output Current (PF=0.9)	48.3 A	54.5 A	60 A	66.7 A	84.1 A
Power Factor			>0.99		
Adjustable Power Factor			0.8 leading...0.8 lagging		
THDi			<3% (Rated Power)		
Efficiency					
Max. Efficiency			98.4%		
European Efficiency			98.2%		
MPPT Efficiency			99.9%		
Protection					
Anti-flow Protection			Optional		
DC Reverse Polarity Protection			Yes		
DC Switch			Yes		
DC Surge Protection			Type II		
Insulation Resistance Monitoring			Yes		
Residual-current Monitoring Unit (GFCI)			Yes		
AC Short-circuit Protection			Yes		
AC Surge Protection			Type II		
Grid Monitoring			Yes		
Anti-islanding Protection			Yes		
String Fault Monitoring			Yes		
AFCI Protection			Optional		
General Data					
Dimensions (W×H×D)			590 x 480 x 237 mm		
Weight	32 kg	32 kg	32 kg	34 kg	35kg
Operating Temperature Range			-25°C~+60°C (45°C derating)		
Relative Humidity			0~100%		
Altitude			4000 m (>2000 m derating)		
Self-consumption at Night			<1 W		
Topology			Transformerless		
Cooling			Intelligent Air Cooling		
Protection Rating			IP66		
Guarantee Period			5 Years / 10 Years (Optional)		
Display			LED & LCD		
Communication			Yes: RS485/USB, Optional: 4G/WiFi		
Standards Compliance					
Grid Connection			NB/T 32004, G98/G99, VDE 0126, VDE 4105, VDE 0124, EN 50549-1/2, CE10-21/CE10-16, AS 4777.2, IEC 61727, IEC 62116, PEA, MEA		
Safety Standards			IEC 62109-1/2		
Others			EN 61000-6-1/2/3/4, IEC 61683, IEC 60068(1,2,14,30)		