ENERGIE Sonnex
Brighten the future

Three Phase Grid-Connection Inverter
STH3-15KTG

High Yield & Efficiency

- Max. Efficiency of inverter is up to 98.6%.
- 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.
- 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.
- IP66 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.
- Fanless design, natural heat dissipation, low noise.

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.

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MODEL	STH3KTG	STH4KTG	STH5KTG	STH6KTG	STH7KTG	STH8KTG	STH9KTG	STH10KTG	STH11KTG	STH12KTG	STH13KTG	STH15KTG
Max. Input Power	4.5 kW	6 kW	7.5 kW	9 kW	10.5 kW	12 kW	13.5 kW	15 kW	16.5 kW	18 kW	19.5 kW	22.5 kW
Max. DC Voltage	1100 V											
Start-up Voltage	180 V											
Nominal Voltage	600 V											
MPPT Voltage Range	140~1000 V											
No. of MPP Trackers	2											
No. of PV Strings per MPP Tracker	1 / 1				1 / 2							
Max. Input Current per MPP Tracker	16A / 16A				16A / 32A							
Max. Input short Current per MPP Tracker	20 / 20 A				20 / 40 A							
Output Data (AC)												
Nominal Output Power	3 kW	4 kW	5 kW	6 kW	7 kW	8 kW	9 kW	10 kW	11 kW	12 kW	13 kW	15 kW
Max. AC Apparent Power	3.3 kVA	4.4 kVA	5.5 kVA	6.6 kVA	7.7 kVA	8.8 kVA	9.9 kVA	11 kVA	12.1 kVA	13.2 kVA	14.3 kVA	16.5 kVA
Nominal AC Voltage	230/400 V, 3L/N/PE											
AC Grid Frequency	50/60 Hz											
Frequency Range	(45-55)/(55-65) Hz											
Max. Output Current (PF=0.9)	4.8 A	6.4 A	8.0 A	9.6 A	11.2 A	12.8 A	14.3 A	15.9 A	17.5 A	19.1 A	20.7 A	23.9 A
Power Factor	>0.99											
Adjustable Power Factor	0.8leading...0.8lagging											
THDi	<3% (Rated Power)											
Efficiency												
Max. Efficiency	98.4%				98.5%						98.6%	
European Efficiency	97.5%				98.0%						98.1%	
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	/				Optional							
AFCI Protection	Optional											
General Data												
Dimensions (W×H×D)	440×370×140 mm				440×370×186 mm						440×370×186 mm	
Weight	13 kg				16 kg						17 kg	
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	Natural convection										Intelligent Air Cooling	
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, CEI0-21/CEI0-16, 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)											