

- MAX. EFFICIENCY 97.6%
- IP66 PROTECTION

STH 3~8kW

Single Phase | 1/2 MPPTs | Hybrid inverter (LV)



IP66
protection degree.



Support diesel generators
and charging piles.



Max. 3pcs parallel for
off-grid operation.



Fast and easy data checking
and commissioning.



Up to 160A
Fast charging/discharging.



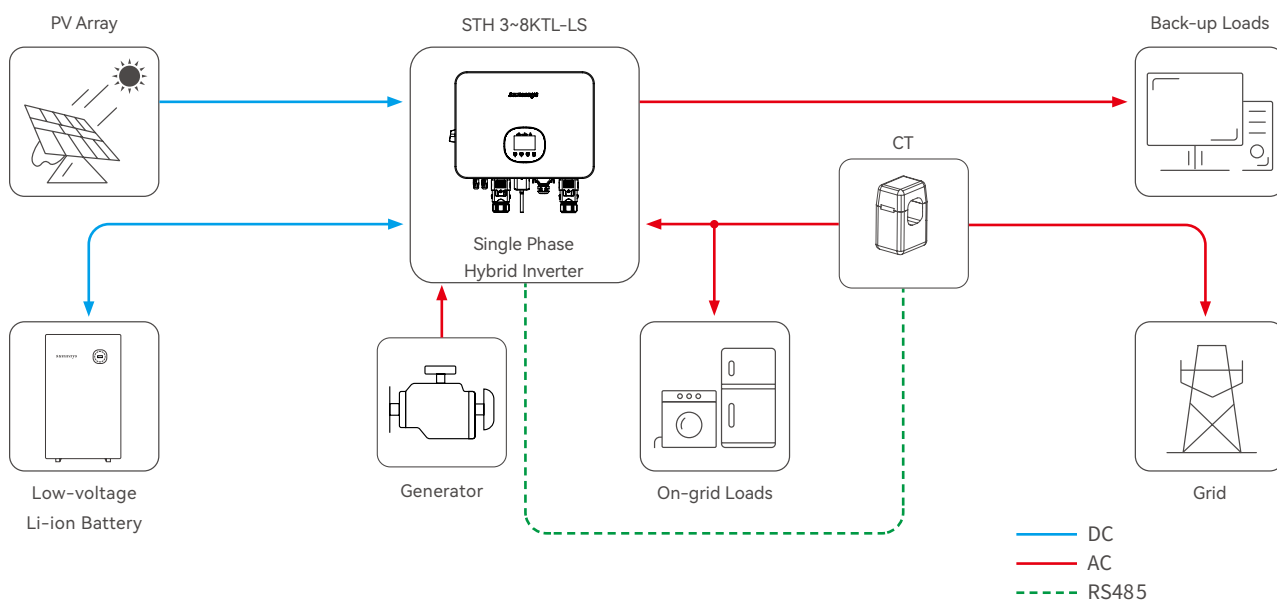
Up to 20A
maximum PV input current.



Switch to off-grid mode
within 10ms.



Powering inductive & capacitive
backup load 2 times rated current.



Model	STH-3KTL-LSS	STH-3.6KTL-LSS	STH-4KTL-Ls	STH-4.6KTL-Ls	STH-5KTL-Ls	STH-6KTL-Ls	STH-7.5KTL-Ls	STH-8KTL-Ls
PV Input								
Start-up Voltage (V)	58	58	58	58	58	58	58	58
Max. DC Input Voltage (V)	600	600	600	600	600	600	600	600
Rated DC Input Voltage (V)	360	360	360	360	360	360	360	360
MPPT Voltage Range (V)	80-550	80-550	80-550	80-550	80-550	80-550	80-550	80-550
No. of MPP Trackers	1	1	2	2	2	2	2	2
No. of DC Inputs per MPPT	1	1	1/1	1/1	1/1	1/1	1/1	1/1
Max. Input Current (A)	20	20	20/20	20/20	20/20	20/20	20/20	20/20
Max. Short-circuit Current (A)	25	25	25/25	25/25	25/25	25/25	25/25	25/25

Battery

Battery Type	Lithium battery (with BMS)/Lead Acid							
Battery Communication Mode	CAN							
Battery Voltage Range (V)	40-60	40-60	40-60	40-60	40-60	40-60	40-60	40-60
Max. Charge/Discharge Current (A)	80/80	80/80	100/100	100/100	120/120	120/120	160/160	160/160

Output (Grid)

Rated Output Power (W)**	3,000	3,680	4,000	4,600	5,000	6,000	7,500	8,000
Max. Output Power (W)	3,300	3,680	4,400	5,060	5,500	6,600	8,250	8,800
AC Output Rated Apparent Power (VA)	3,000	3,680	4,000	4,600	5,000	6,000	7,500	8,000
Max. Apparent Power (VA)	3,300	3,680	4,400	5,060	5,500	6,600	8,250	8,800
Rated Output Voltage (V)**	L/N/PE, 220/230							
Rated AC Frequency (Hz)	50/60							
AC Output Rated Current (A)	13	16	17.4	20	21.7	26.1	32.6	34.8
Max. Output Current (A)	15	16	20	23	25	30	37.5	40
The measured Inrush current (A)	8.8A@28μs							
Max. Output Fault Current (A)	50	50	50	50	80	80	80	80
Max. Output Overcurrent Protection (A)	50	50	50	50	80	80	80	80
Power Factor	0.8 leading ...0.8 lagging							
Max. Total Harmonic Distortion	<3% @Rated Output Power							
DCI	<0.5%In							

Output (Back-up)

Rated Output Power (W)	3,000	3,680	4,000	4,600	5,000	6,000	7,500	8,000
Max. Output Power (W)	3,300	3,680	4,400	5,060	5,500	6,600	8,250	8,800
Back-up Output Rated Apparent Power (VA)	3,000	3,680	4,000	4,600	5,000	6,000	7,500	8,000
Max. Apparent Power (VA)	3,300	3,680	4,400	5,060	5,500	6,600	8,250	8,800
Back-up Output Rated Current (A)	13	16	17.4	20	21.7	26.1	32.6	34.8
Max. Output Current (A)	15	16	20	23	25	30	37.5	40
UPS Switching Time	<10ms							
Rated Output Voltage (V)	L/N/PE, 220/230							
Rated AC Frequency (Hz)	50/60							
Peak Output Apparent Power (VA)	6,000 ^① , 10s	7,200 ^① , 10s	8,000 ^① , 10s	10,000 ^① , 10s	10,000 ^① , 10s	12,000 ^① , 10s	12,000 ^① , 10s	12,000 ^① , 10s
Load Capacity of Motors	/	/	/	/	4HP	4HP	4HP	4HP

Efficiency

Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
European Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%
MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%

Protection

DC Reverse Polarity Protection	Integrated
Insulation Resistance Protection	Integrated
DC Switch	Integrated
AFCI	Optional
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Islanding Protection	Integrated
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated

General Data

Over Voltage Category	DC : II ; AC : II
Dimensions (mm)	488*374*205
Weight (KG)	20 / 21
Protection Degree	IP66
Self-consumption at Night (W)	< 15
Topology	Transformerless
Operating Temperature Range (°C)	-25~60
Relative Humidity (%)	0~100
Operating Altitude (m)	3000
Cooling	Natural Convection / Fan
Noise Level (dB)	<40 / <50
Display	LCD/ OLED
Communication	WiFi/Bluetooth

① The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.

*For G98 setting the Maximum output Power and Rated Power and Max Apparent Power in (W and VA) is equal to and not more than (3600 W) or 15.6A

**Due to differences in voltage values in various countries, minor variations may occur. The final interpretation rights belong to Sunways.