

sunways

Sunways Single Phase Storage Inverter with Two MPPT

STH-3~3.6KTL-HSS、STH-4.2K~8KTL-HS

MAX 97.6% EFFICIENCY

IP65 PROTECTION



Max. efficiency up to 97.6%



With AC output ranging from 3kW to 8kW



Powerful load adaptability, support multiple loads stable access



Fast and easy data checking and commissioning via App or OLED display



Wide battery voltage range allows more battery modules connection and increases self consumption rate.



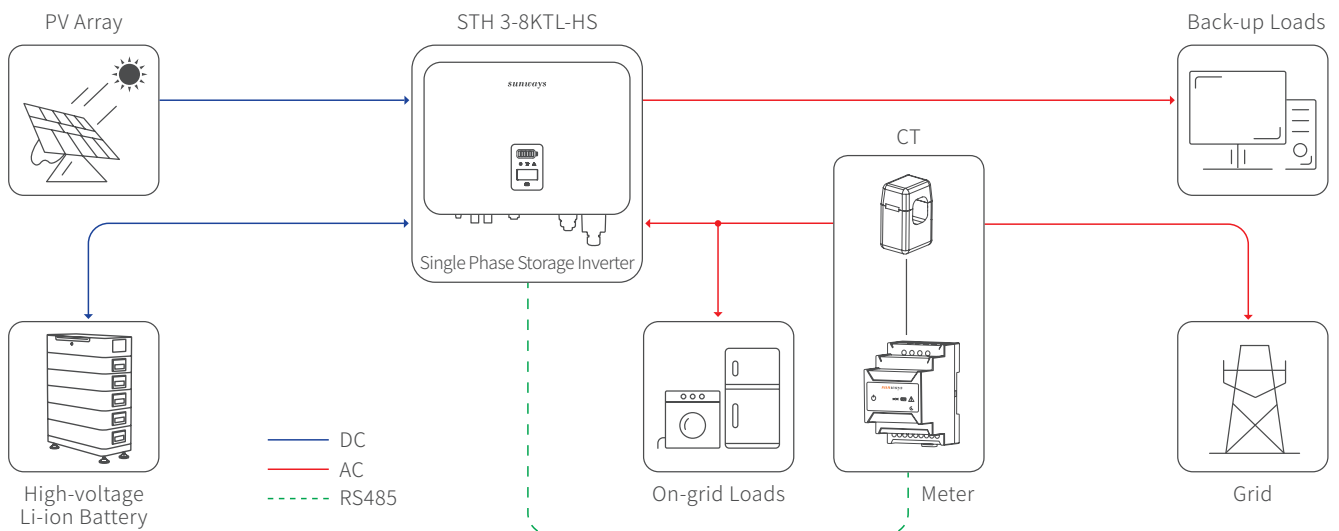
Fast charging/discharging of up to 30A to meet the demand of higher consumption and energy trading.



Up to 15A maximum PV input current allows most higher current PV panels connection and lowers the system LCOE.



Uninterruptible power supply, switch to off-grid mode within 10ms



Model		STH-3KTL-HSS	STH-3.6KTL-HSS	STH-4.2KTL-HS	STH-4.6KTL-HS	STH-5KTL-HS	STH-6KTL-HS	STH-7KTL-HS	STH-8KTL-HS
PV Input	Max. Input Power (W)	4,800	5,760	6,720	7,360	8,000	9,600	11,200	12,800
	Start-up Voltage (V)	80	80	80	80	80	80	80	80
	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)	100-550	100-550	100-550	100-550	100-550	100-550	100-550	100-550
	No. of MPP Trackers	1	1	2	2	2	2	2	2
	No. of PV Inputs per MPPT	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
	Max. Input Current (A)	15	15	15/15	15/15	15/15	15/15	15/15	15/15
Max. Short-circuit Current (A)	20	20	20/20	20/20	20/20	20/20	20/20	20/20	
Battery	Battery Type	Lithium Battery (with BMS)							
	Battery Communication Mode	CAN / RS485							
	Battery Voltage Range (V)	85-500							
	Max. Charge/Discharge Current (A)	30/30							
	Rated Current of Built-in Fuse (A)	63							
Output (Grid)	Rated Output Power (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
	Max. Output Power (W)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
	Max. Apparent Power (VA)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
	Max. Input Apparent Power (VA)	6,000 ^①	7,200 ^①	8,400 ^①	9,200 ^①	10,000 ^①	12,000 ^①	12,000 ^①	12,000 ^①
	Max. Charging Power of Battery (W)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
	Rated Output Voltage (V)	L/N/PE, 220/230/240V							
	Rated AC Frequency (Hz)	50/60							
	Max. Output Current (A)	15	18	21	21	25/21.7	28.7	35	36.3
	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	3,600	4,200	4,600	5,000	6,000	7,000	8,000
	Max. Output Power (W)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
	Back-up output rated apparent power (VA)	3,000	3,600	4,200	4,600	5,000	6,000	7,000	8,000
	Max. Apparent Power (VA)	3,300	3,960	4,600	4,600	5,500	6,600	7,700	8,000
	Back-up output rated current (A)	13	15.7	18.3	20	21.7	26.1	31.8	36.3
	Max. Output Current (A)	15	18	21	21	25/21.7	28.7	35	36.3
	UPS switching time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
	Rated Output Voltage (V)	L/N/PE, 220/230/240							
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
	Peak output apparent power (VA)	3,900 ^② , 60s	4,700 ^② , 60s	5,500 ^② , 60s	6,000 ^② , 60s	6,500 ^② , 60s	7,800 ^② , 60s	9,100 ^② , 60s	10,000 ^② , 60s
Voltage harmonic distortion	<3% @Linear load								
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%
	Max. Battery Charging Conversion Efficiency	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%
	Max. Battery Discharge Conversion Efficiency	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%	96.6%

Protection	
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
DC Switch	Optional
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Islanding Protection	Frequency Shift, Integrated
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated

General Data	
Over Voltage Category	PV: II ; Main: III
Dimensions (mm)	550W*410H*175D
Weight (KG)	26
Protection Degree	IP65
Self-consumption at Night (W)	< 15
Topology	Transformer less
Operating Temperature Range (° C)	-30~60
Relative Humidity (%)	0~100
Operating Altitude (m)	4000 (derating@ > 3000)
Cooling	Natural Convection
Noise Level (dB)	< 25
Display	OLED & LED
Communication	WiFi/ LAN (Optional)

Compliance

IEC62109、IEC62116、VDE4105、VDE0126、AS4777、RD1699、NBR16149、IEC61727、IEC60068、IEC61683、EN50549、EN61000

① Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery.

② 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.