










Sunways Single Phase Storage Inverter
 STH-3K/3.6K/4.2K/4.6K/5K/6K/7K/8KTL-HS

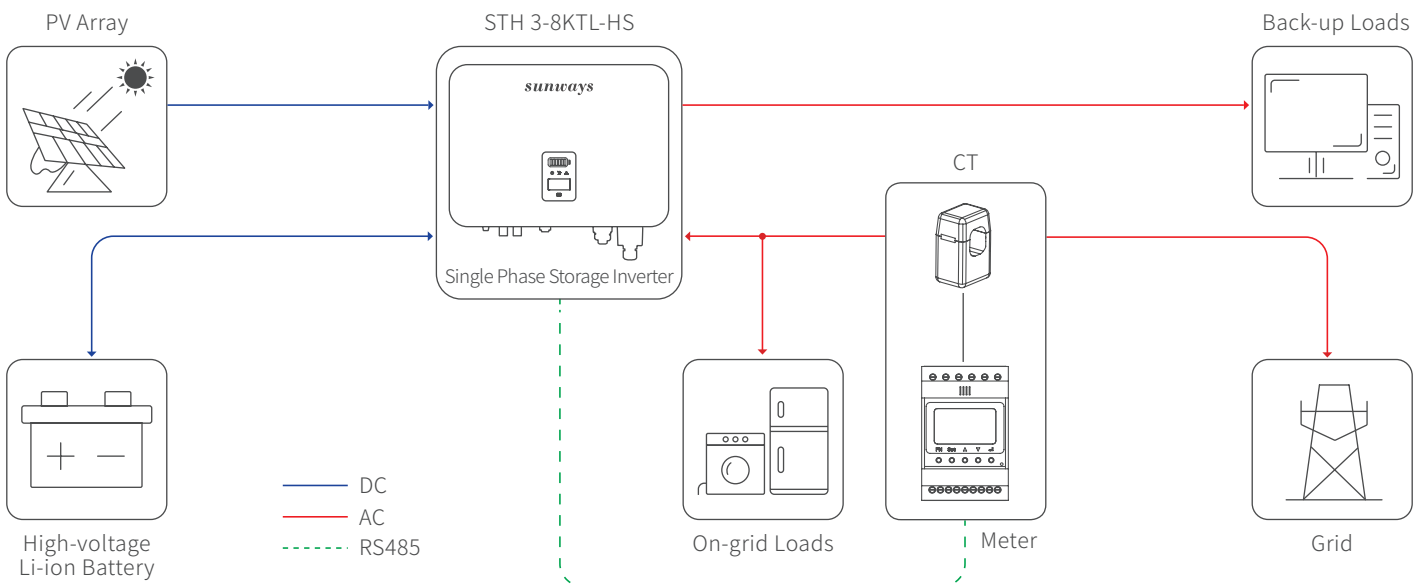
MAX 97.6% EFFICIENCY

IP65 PROTECTION

10 YEARS WARRANTY



 Max. efficiency up to 97.6%	 With AC output ranging from 3kW to 8kW	 Fanless design, ultra-silence
 Powerful load adaptability, support multiple loads stable access	 Oled display+App, two ways for data checking and management	 85~500V super wide battery voltage range, adapt to bigger capacity battery
 Up to 30A charging and discharging current allows bigger capacity battery accessing and faster charging	 Intelligent EMS management, power dispatching from PV, Battery and Grid is more flexible	 Uninterruptible power supply, switch to off-grid mode within 10ms



TECHNICAL PARAMETERS

SINGLE PHASE:STH-3K/3.6K/4.2K/4.6K/5K/6K/7K/8KTL-HS

Model	STH-3KTL-HS	STH-3.6KTL-HS	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)	4,500	5,400	6,300	6,900	7,500	9,000	10,500	12,000
	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	2	2	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)	13.5/13.5	13.5/13.5	13.5/13.5	13.5/13.5	13.5/13.5	13.5/13.5	13.5/13.5	13.5/13.5
Max. Short-circuit Current (A)	18/18	18/18	18/18	18/18	18/18	18/18	18/18	18/18	
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 (kW)	3	3.6	4.2	4.6	5/4.99 ^①	6	7	8
	Max. Output Power (kW)	3.3	3.96	4.6	4.6	5.5/4.99 ^①	8.8	11	13.2
	Max. Apparent Power (kVA)	3.3	3.96	4.6	4.6	5.5/4.99 ^①	8.8	11	13.2
	Max. Input Apparent Power (kVA)	6 ^②	7.2 ^②	8.4 ^②	9.2 ^②	10 ^②	11 ^②	11 ^②	11 ^②
	Max. Charging Power of Battery (kW)	3	3.6	4.2	4.6	5/4.99 ^①	6	7	8
	Rated Output Voltage (V)	L/N/PE, 220/230/240V							
	Rated AC Frequency (Hz)	50/60Hz 45-55Hz/55-65Hz							
	Max. Output Current (A)	15	18	21	21	25/21.7 ^①	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)	UPS Switching Time	<10ms							
	Rated Output Voltage (V)	L/N/PE, 220/230/240V							
	Rated AC Frequency (Hz)	50/60Hz 45-55Hz/55-65Hz							
	Max. Apparent Output Power (kVA)	3.3	3.96	4.6	4.6	5.5/4.99 ^①	8.8	11	13.2
	Peak Overload Apparent Power (kVA)	6 ^③ , 60s	7.2 ^③ , 60s	8.4 ^③ , 60s	9.2 ^③ , 60s	10 ^③ , 60s	10 ^③ , 60s	10 ^③ , 60s	10 ^③ , 60s
	Voltage Harmonic Distortion	<3% @Linear Load							
	Efficiency	Max. Efficiency	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%	97.0%
Max. Battery Charging Conversion Efficiency	96.6%	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%	96.6%

Protection	
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
DC Switch	Integrated
Surge Protection	Integrated (Type II)
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 The grid feed in power for AS/NZS 4777.2 is limited 4.99kW & 4.99kVA & 21.7A.

② 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.

③ 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.