



sunways

German Heritage Since **1993**

www.sunways-tech.com



CONTENT

※ STORAGE SERIES 04

STH-3~6KTL-LS-P 04

STH-3-8KTL-LS 06

STH-3-8KTL-HS 08

STH-4-12KTL-HT-P 10

STH-15-33KTL-HT 12

※ BATTERY 14

STE-BS5-20kWh 14

STE-ES5-30kWh 16

STE-FS10-60kWh 18

STE-NS16 20

STE-MS5-10kWh 22



STH 3~6kW

Single Phase | 2 MPPTs | Hybrid inverter (LV)



- IP65 protection degree Outdoor and Indoor Application.
- Support TOU Mode (Peak Shaving).
- Max. 6pcs parallel for off-grid operation.
- Fast and easy data checking and commissioning via App or OLED display.
- Fast charging/discharging of up to 100A to meet the demand of higher consumption and energy trading.
- Up to 16A 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.
- 10 second 150% off-grid overload capacity, powering inductive & capacitive backup load 1.5 times rated current.

Model	STH-3KTL-LS-P	STH-3.6KTL-LS-P	STH-4KTL-LS-P	STH-4.6KTL-LS-P	STH-5KTL-LS-P	STH-6KTL-LS-P
PV Input						
Max. input power (W)	8000	8600	9000	9000	9000	9000
Starting voltage (V)	120					
Max. input voltage (V)	600					
Rated voltage (V)	360					
MPPT voltage range (V)	100-550					
No. of MPP Trackers	2					
Short-circuit current (A)	20					
Max. current (A)	16					
Battery						
Battery type	Lead acid, lithium battery					
Rated voltage (V)	51.2					
Input voltage (V)	42~60					
Rated charging/discharging power (W)	5000					
Max. charging/discharging current (A)	100					
Battery charging wake-up	Support					
Battery communication wake-up	Support					
Charging method	constant current, constant voltage, floating					
Output(Grid)						
Rated output power (W)	3000	3680	4000	4600	5000	6000
Output voltage range	180~270VAC					
Output frequency (HZ)	50/60					
Rated output current (A)	13	16	17.4	20	21.7	26.1
Adjustable power factor	1 (0.8 leading... 0.8 lagging)					
Grid type (V)	L, N, 230					
Current distortion rate	<3%					
Max. input power	6000	7360	8000	9200	10000	10000
Max. input Current (A)	26	32	34.8	40	43.5	43.5
Output(Back-up)						
Rated output power (W)	3000	3680	4000	4600	5000	5000
Max. apparent output power (VA,s)	4500,10	5520,10	6000,10	6900,10	7500,10	7500,10
Rated output voltage (V)	230					
Output current (A)	13	16	17.4	20	21.7	21.7
Output frequency (Hz)	50/60					
Output voltage range	180~270VAC					
Switch Time (ms)	<10					
Voltage distortion rate	<3%					
Efficiency						
Max. Efficiency	97.60%					
European efficiency	97.30%					
Max. efficiency on battery side and AC side	94.7%					
MPPT efficiency	99.9%					
General Data						
Standby power (W)	<10					
Dimension (W*H*D) (mm)	525*433*186					
Weight (kg)	25.65					
Installation type	Wall mounting					
Operating temperature range (° C)	-25° C~60° C					
Relative humidity range	0~95% RH					
Max. operating altitude (m)	4000					
Noise (dB)	<25					
Cooling	Natural convection					
Protection Degree	IP65					
Communication interface	Battery RS485,CAN, electricity meter SR845, WIFI, GPRS, Bluetooth					
Display	OLED					
Max.parallel connection	6 units					
Isolation method	High-frequency isolation					
Warranty period (years)	5 / 10 (optional)					

STH 3~8kW

Single Phase | 2 MPPTs | Hybrid inverter (HV)



- 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	17.8	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	3,600	4,000	4,600	5,000	6,000	7,500	8,000
Max. Output Power (W)	3,300	3,960	4,400	5,060	5,500	6,600	8,250	8,800
Back-up Output Rated Apparent Power (VA)	3,000	3,600	4,000	4,600	5,000	6,000	7,500	8,000
Max. Apparent Power (VA)	3,300	3,960	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)	<35 / <45
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.

STH 3~8kW

Single Phase | 2 MPPTs | Hybrid inverter (HV)



- Max. Efficiency up to 97.6%.
- With AC output ranging from 3kW to 8kW.
- Powerful load adaptability, support 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
Number of MPP Trackers	1	1	2	2	2	2	2	2
Number of DC Inputs per MPPT	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 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
Grid Type (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							
THDi @ Rated Power	<3%							
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 (ms)	<10							
Grid Type (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
THDi @ Rated Power	<3%							

Efficiency

Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
Euro 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 Detection	Integrated
DC Switch	Optional
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Anti-islanding Protection	Integrated
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated

General Data

Over Voltage Category	PV : II ; Main : III
Dimensions [W*H*D] (mm)	550*410*175
Weight (kg)	26
Protection Degree	IP65
Self-consumption at Night (W)	< 15
Topology	Transformerless
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)

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.

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

STH 4~12kW

Three Phase | 2 MPPTs | Hybrid inverter (HV)



- Max. Efficiency up to 98.2%.
- Up to 110% phase unbalanced output available on both on-grid and back-up outputs.
- Powerful load adaptability, support loads stable access.
- Oled display+App, two ways for data checking and management.
- 140-750V wide battery connection range to store more energy and optimize self-sufficiency rate.
- Arbitrary phase of back-up output allows up to 125% overloading ability.
- Maximum 200% back-up output overloading @60s.
- Uninterruptible power supply, switch to off-grid mode within 10ms.



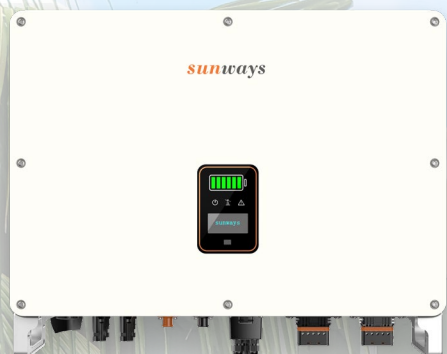
Model		STH-4KTL-HT-P	STH-5KTL-HT-P	STH-6KTL-HT-P	STH-8KTL-HT-P	STH-10KTL-HT-P	STH-12KTL-HT-P
PV Input	Max. Input Power (W)	6,400	8,000	9,600	12,800	16,000	19,200
	Start-up Voltage (V)	150	150	180	180	180	180
	Max. DC Input Voltage (V)	1,000	1,000	1,000	1,000	1,000	1,000
	Rated DC Input Voltage (V)	620	620	620	620	620	620
	MPPT Voltage Range (V)	150-850	150-850	200-850	200-850	200-850	200-850
	Number of MPP Trackers	2	2	2	2	2	2
	Number of PV Inputs	1	1	1	1	1	1
	Max. Input Current (A)	16/16 ^①	16/16 ^①	16/16 ^①	16/16 ^①	16/16 ^①	16/16 ^①
	Max. Short-circuit Current (A)	18/18	18/18	18/18	18/18	18/18	18/18
Battery	Battery Communication Mode	CAN / RS485					
	Battery Voltage Range (V)	140-750					
	Max. Charge/Discharge Current (A)	25/25					
	Rated Current of Built-in Fuse (A)	63					
Output (Grid)	Rated Output Power (W)**	4,000	5,000	6,000	8,000	10,000	12,000
	Max. Output Power (W)	4,400	5,500	6,600	8,800	11,000	13,200
	Max. Apparent Power (VA)	4,400	5,500	6,600	8,800	11,000	13,200
	Max. Input Apparent Power (VA)	8,000 ^②	10,000 ^②	12,000 ^②	16,000 ^②	16,500 ^②	16,500 ^②
	Max. Charging Power of Battery (W)	4,000	5,000	6,000	8,000	10,000	12,000
	Grid Type**	3L/N/PE, 230/400V					
	Rated AC Frequency (Hz)	50/60 45-55/55-65					
	Max. Output Current (A)	6.7	8.3	10	13.3	16.5	20
	Power Factor	0.8 leading...0.8 lagging					
	THDi @ Rated Power	<3%					
	DCI	< 0.5%In					
Output (Back-up)	UPS Switching Time (ms)	< 10					
	Grid Type	3L/N/PE, 230/400V					
	Rated AC Frequency (Hz)	50/60 45-55/55-65					
	Max. Apparent Power (VA)	4,400	5,500	6,600	8,800	11,000	13,200
	Peak Output Apparent Power (VA)	8,000 ^③ , 60s	10,000 ^③ , 60s	12,000 ^③ , 60s	16,000 ^③ , 60s	20,000 ^③ , 60s	20,000 ^③ , 60s
	Peak Output Apparent Power/per Phase (VA)	1,600 ^④	2,100 ^④	2,600 ^④	3,300 ^④	4,000 ^④	5,000 ^④
	THDi @ Rated Power	< 3%					
Efficiency	Max. Efficiency	98.1%	98.1%	98.1%	98.2%	98.2%	98.2%
	Euro Efficiency	97.3%	97.3%	97.3%	97.4%	97.4%	97.4%
	Max. Battery Charging Conversion Efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%
	Max. Battery Discharge Conversion Efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%

Protection		General Data	
DC Reverse Polarity Protection	Integrated	Dimensions [W*H*D] (mm)	550*410*175
Battery Input Reverse Connection Protection	Integrated	Weight (kg)	26~28
Insulation Resistance Detection	Integrated	Protection Degree	IP65
DC Switch	Optional	Self-consumption at Night (W)	< 15
Surge Protection	Integrated	Topology	Transformerless
Over-temperature Protection	Integrated	Operating Temperature Range (° C)	-30~60
Residual Current Protection	Integrated	Relative Humidity	0~100%
Anti-islanding Protection	Integrated	Operating Altitude (m)	4000 (derating > 3000)
AC Over-voltage Protection	Integrated	Cooling	Natural Convection
Overload Protection	Integrated	Noise Level (dB)	< 25
AC Short-circuit Protection	Integrated	Display	OLED & LED
		Communication	WiFi / LAN (Optional)

① STH-4K~12KTL-HT series maximum input current per string is 16A, products deliver upon the order.
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.
④ Only one of the three phases can reach up to 1.25 times, and the other two phases should be less than 1.1.
** Due to differences in voltage values in various countries, minor variations may occur. The final interpretation rights belong to Sunways.

STH 15~33kW

Three Phase | 2 MPPTs | Hybrid inverter (HV)



- Max. Efficiency up to 98.2%.
- Up to 110% phase unbalanced output available on both on-grid and back-up outputs.
- Powerful load adaptability, support loads stable access.
- Fast and easy data checking and commissioning via App or OLED display.
- 200~800V wide battery connection range to store more energy and optimize self-sufficiency rate.
- Support continuous 110% AC output overloading on both on-grid and back up sides.
- Diversified work modes that are compatible with the majority of application scenarios.
- Uninterruptible power supply, switch to off-grid mode within 10ms.

Model		STH-15KTL-HT	STH-17KTL-HT	STH-20KTL-HT	STH-25KTL-HT	STH-29.9KTL-HT	STH-30KTL-HT	STH-33KTL-HT
PV Input	Max. Input Power (W)	22,500	25,500	30,000	37,500	44,850	45,000	49,500
	Start-up Voltage (V)	190	190	190	190	190	190	190
	Max. DC Input Voltage (V)	1000	1000	1000	1000	1000	1000	1000
	Rated DC Input Voltage (V)	620	620	620	620	620	620	620
	MPPT Voltage Range (V)	200-850	200-850	200-850	200-850	200-850	200-850	200-850
	Number of MPP Trackers	2	2	2	2	2	2	2
	Number of DC Inputs per MPPT	2	2	2	2	2	2	2
	Max. Input Current (A)	32/32	32/32	32/32	32/32	32/32	32/32	32/32
Battery	Max. Short-circuit Current (A)	40/40	40/40	40/40	40/40	40/40	40/40	40/40
	Battery Communication Mode	CAN / RS485						
	Battery Voltage Range (V)	200-800						
	Max. Charge/Discharge Current (A)	50/50						
Output (Grid)	Rated Current of Built-in Fuse (A)	125						
	Rated Output Power (W)**	15,000	17,000	20,000	25,000	29,900	30,000	33,000
	Max. Output Power (W)	16,500	18,700	22,000	27,500	29,900	33,000	36,300
	AC Output Rated Apparent Power (VA)	15,000	17,000	20,000	25,000	29,900	30,000	33,000
	Max. Input Apparent Power (VA)	22,500 ^①	25,500 ^①	30,000 ^①	37,500 ^①	44,850 ^①	44,850 ^①	44,850 ^①
	Grid Type**	3L / N / PE, 230 (400)						
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60
	AC Output Rated Current (A)	21.7	24.6	29.0	36.2	43.3	43.5	47.8
	Max. Output Current (A)	25.0	28.3	33.3	41.7	49.8	50.0	55.0
	Power Factor	0.8 leading...0.8 lagging						
	THDi @ Rated Power	<3%						
	DCI	<0.5%In						
Output (Back-up)	Rated Output Power (W)	15,000	17,000	20,000	25,000	29,900	30,000	33,000
	Max. Output Power (W)	16,500	18,700	22,000	27,500	29,900	33,000	36,300
	Back-up Output Rated Apparent Power (VA)	15,000	17,000	20,000	25,000	29,900	30,000	33,000
	Max. Apparent Power (VA)	16,500	18,700	22,000	27,500	29,900	33,000	36,300
	Back-up output rated current (A)	21.7	24.6	29.0	36.2	43.3	43.5	47.8
	Max. Output Current (A)	25.0	28.3	33.3	41.7	49.8	50.0	55.0
	UPS switching time (ms)	<10						
	Grid Type	3L/N/PE, 230 (400)						
Efficiency	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60
	THDi @ Rated Power	<3%						
	Max. Efficiency	98.1%	98.1%	98.1%	98.2%	98.2%	98.2%	98.2%
	Euro Efficiency	97.3%	97.3%	97.3%	97.4%	97.4%	97.4%	97.4%
	MPPT Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
	Max battery charging conversion efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	97.3%
	Max battery discharge conversion efficiency	97.2%	97.2%	97.2%	97.3%	97.3%	97.3%	97.3%

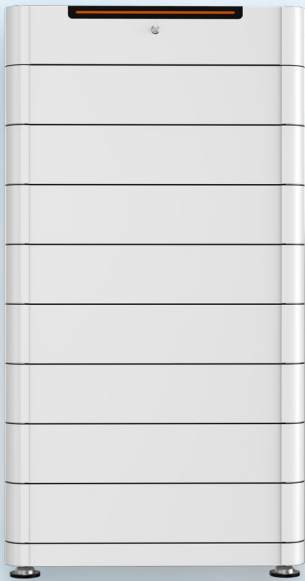
Protection		General Data	
DC Reverse Polarity Protection	Integrated	Over Voltage Category	PV: II , Main: III
Battery input reverse connection protection	Integrated	Dimensions [W*H*D] (mm)	640*490*290
Insulation Resistance Detection	Integrated	Weight (kg)	48
DC Switch	Optional	Protection Degree	IP66
Surge Protection	Integrated	Self-consumption at Night (W)	<15
Over-temperature Protection	Integrated	Topology	Transformerless
Residual Current Protection	Integrated	Operating Temperature Range (° C)	-30~60
Anti-islanding protection	Integrated	Relative Humidity (%)	0~100
AC Over-voltage Protection	Integrated	Operating Altitude (m)	3000
Overload protection	Integrated	Cooling	Smart Fan Cooling
AC Short-circuit Protection	Integrated	Noise Level (dB)	<50
		Display	OLED & LED
		Communication	WiFi/LAN (Optional)

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.

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

STE-BS 5~20kWh

Sunways Stackable Lithium Battery



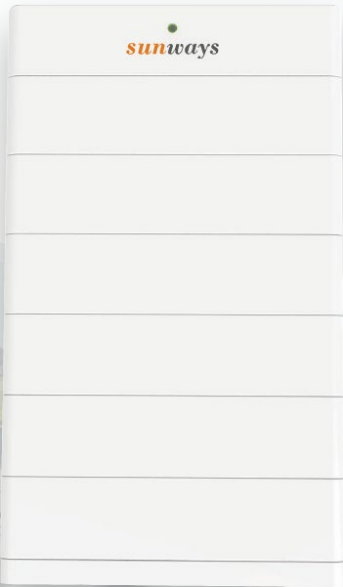
- Stack installation, time and cost-saving
- Longer cycle life battery(6,000 cycles)
- Support remote diagnosis & upgrade
- Charge your battery within one hour
- Optional battery capacity ranges from 5.12~20.48kWh
- Perfect match up with both residential and commercial inverter

Model	STE-BS5	STE-BS7	STE-BS10	STE-BS12	STE-BS15	STE-BS17	STE-BS20
Battery Usable Energy (kWh)	5.12	7.68	10.24	12.8	15.36	17.92	20.48
Battery Capacity (Ah)	50	50	50	50	50	50	50
Nominal Voltage (V)	102.4	153.6	204.8	256	307.2	358.4	409.6
Maximum Charge/Discharge Current (A)	50	50	50	50	50	50	50
Recommend Continuous Charge/Discharge Current (A)	25	25	25	25	25	25	25
Weight (kg)	74.5	101.6	128.7	155.8	182.9	210	237.1
Dimension[W*H*D] (mm)	708*497*315	708*634*315	708*771*315	708*908*315	708*1045*315	708*1182*315	708*1319*315
Protection Degree	IP54						
Cycle Life	6,000 cycles @ 90%DOD						
Operating Temperature Range (°C)	0~50						
Storage Temperature (°C)	0~35						
Relative Humidity	≤ 95%						
Altitude (m)	2000						
Internal Battery Module	STE-P2560						
Module Connection	Series / Hard Connection with Positioner						
Installation Method	Stackable						
Number of Modules	2	3	4	5	6	7	8
Communication Protocol/Connector Type	CAN/RJ45						

- Standard operating temperature for batteries is 25° C
- STH 3~8KTL-HS series suitable battery range from STE-BS5-BS20
- STH 4~12KTL-HT series suitable battery range from STE-BS7-BS20
- STH 15~33KTL-HT series suitable battery range from STE-BS10-BS20

STE-ES 5~30kWh

Sunways Stackable Lithium Battery



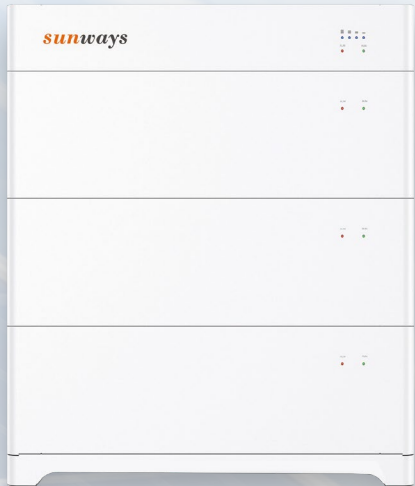
- LiFeP04 Safe Battery Chemistry
- ≥ 6,000 Cycles at 90% DOD
- “Z” type cell craft, makes better thermostability
- Smart BMS for Safety Protection
- Charge Temperature: 0°C ~50°C
- Discharge Temperature: 0°C ~-50°C

Model	STE-ES5	STE-ES10	STE-ES15	STE-ES20	STE-ES25	STE-ES30
Battery Usable Energy (kWh)	5.12	10.24	15.36	20.48	25.60	30.72
Battery Capacity (Ah)	50	50	50	50	50	50
Nominal Voltage (V)	102.4	204.8	307.2	409.6	512	614.4
Maximum Charge/Discharge Current (A)	50	50	50	50	50	50
Recommend Continuous Charge/Discharge Current (A)	25	25	25	25	25	25
Weight (kg)	73	119	165	211	257	303
Dimension [W*H*D] (mm)	700*365*430	700*530*430	700*695*430	700*860*430	700*1025*430	700*1190*430
Protection Degree	IP54					
Cycle Life	6,000 cycles @90% DOD					
Operating Temperature Range(° C)	0~50					
Storage Temperature(° C)	0~35					
Relative Humidity	≤ 95%					
Altitude (m)	2000					
Internal Battery Module	STE-P5120					
Module Connection	Series / Hard Connection with Positioner					
Installation Method	Stackable					
Number of Modules	1	2	3	4	5	6
Communication Protocol/Connector Type	CAN/RJ45					

· Standard operating temperature for batteries is 25° C
· STH 3~8KTL-HS series suitable battery range from STE-ES5-ES20
· STH 4~12KTL-HT series suitable battery range from STE-ES10-ES30
· STH 15~33KTL-HT series suitable battery range from STE-ES10-ES30

STE-FS 10~60kWh

Sunways Stackable Lithium Battery



- **Safer** Cobalt Free Lithium Iron Phosphate(LFP)Battery, safety and long lifespan, high efficiency and high-power density. Intelligent BMS, providing complete protection.
- **Reliable** Support high discharge power, module level Auto-balancing, under-voltage Automatic Restart.
- **Flexible** Modular design, easy to expand, Max capacity of 61.44 kWh. Suited to residential and commercial applications for increasing the self consumption ratio.
- **Convenient** Battery module auto networking, Automatic IP addressing, easy maintenance, remotely monitoring and upgrade, support USB drive upgrade the firmware.
- **Eco-Friendly** Use environmental protection materials,the whole module non-toxic, pollution-free.
- **Floor-stand** Free stand design, floor-mounted, saving installation space.

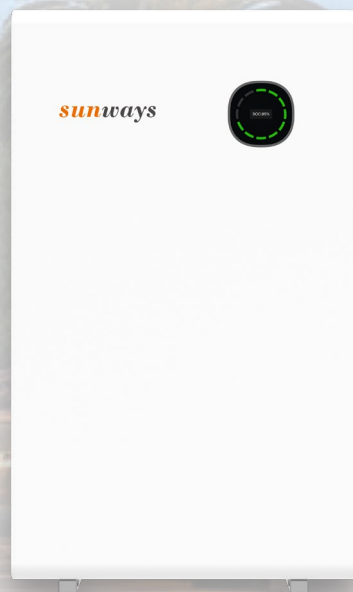
Model	STE-FS10	STE-FS20	STE-FS30	STE-FS40	STE-FS50	STE-FS60
Battery Usable Energy (kWh)	10.24	20.48	30.72	40.96	51.2	61.44
Battery Capacity (Ah)	100	100	100	100	100	100
Nominal Voltage (V)	102.4	204.8	307.2	409.6	512	614.4
Maximum Charge/Discharge Current (A)	70	70	70	70	70	70
Recommend Continuous Charge/Discharge Current (A)	50	50	50	50	50	50
Weight (kg)	105	194	283	372	461	550
Dimension [W*D*H](mm)	720*420*455	720*420*750	720*420*1045	720*420*1340	720*420*1635	720*420*1930
Protection Degree	IP65					
Cycle Life	6,000 cycles @90% DOD					
Operating Temperature Range (° C)	0~50					
Storage Temperature (° C)	0~35					
Relative Humidity	≤ 95%					
Altitude (m)	2000					
Internal Battery Module	STE-P10240					
Module Connection	Series / Hard Connection with Positioner					
Installation Method	Stackable					
Number of Modules	1	2	3	4	5	6
Communication Protocol/Connector Type	CAN/RJ45					

·Standard operating temperature for batteries is 25° C
·STH 3~8KTL-HS series suitable battery range from STE-FS10-FS40
·STH 4~12KTL-HT series suitable battery range from STE-FS20-FS50
·STH 15~33KTL-HT series suitable battery range from STE-FS20-FS50

STE-NS16

51.2V 320AH

Sunways Low-voltage Li-ion Battery

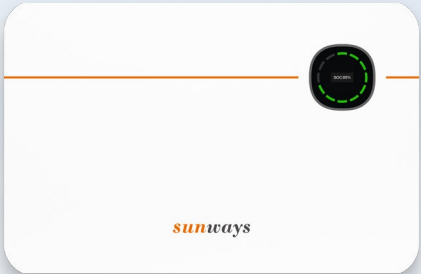


- Support both WiFi and Bluetooth configurations for greater adaptability.
- Long life >6000 cycles.
- Plug and play format for easy installation.
- The use of the most advanced lithium iron phosphate battery core technology.

Model	STE-NS16
Battery Type	51.2V 320 AH LiFePO4
Nominal Energy (kWh)	16.4
Usable Energy (kWh)	14.8
Peak Output Power(KW,10Seconds)	15.4
Round-Trip Efficiency	≥ 97.5%
Nominal Voltage(V)	51.2V
Operating Voltage(V)	44-58.4
Max Charge / Discharge Current (A)	200/200
Communication	CAN,RS485
Enclosure Protection Rating	IP21
Operating Temperature(℃)	-20~60
Cooling Type	Natural Cooling
Installation	Free Stand,Indoor
Cycles Life	>6,000(25℃)
Recommend DOD	90%
Dimension (W*H*D,mm)	573*981*168
Weight(Kg)	130
Humidity	5%-95%
Altitude(m)	<2,000
Warranty	5 Years
Safety Standard	UL1973/IEC62619/UN38.3

STE-MS 5/10kWh

Wall Mounted Batteries



- **Safety LiFePO4** LFP Baftery Chemistry
- **Easy Installation** Plug and Play
- **Wall Mounted** Upto 16 Units in Parallel
- **Stable &Reliable** Smart BMS
- **Long Battery Life** >6,000 Cycles Life (90% DOD)
- **Widely Compatible** Compatible with Mainstream Inverters

Model	STE-MS5	STE-MS10
Battery Type	51.2V 100Ah LiFePO4	51.2V 200Ah LiFePO4
Nominal Energy(kWh)	5.1	10.2
Usable Energy(kWh)	4.6	9.2
Peak Output Power (KW, 10Seconds)	7.7	10.2
Round-Trip Efficiency	97.5%	
Nominal Voltage(V)	51.2V	
Operating Voltage(V)	44-58.4	
Max Charge/Discharge Current(A)	100	150
Communication	CAN,RS485	
Enclosure Protection Rating	IP21	
Operating Temperature (° C)	-20-60	
Cooling Type	Natural Cooling	
Installation	Wall Mounted, Indoor	
Cycles Life	>6,000(25C)	
Recommend DOD	90%	
Dimension (W*H*D, mm)	650*430*155	780*540*155
Weight (kg)	48	88
Humidity	5%-95%	
Altitude(m)	<2,000	
Warranty	5 Years	
Scalability	Max 16 Pcs in Parallel	

sunways



WeChat



Sunways Portal