sunways

STH Series

- MAX. EFFICIENCY 98.2%
- IP66 PROTECTION

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.

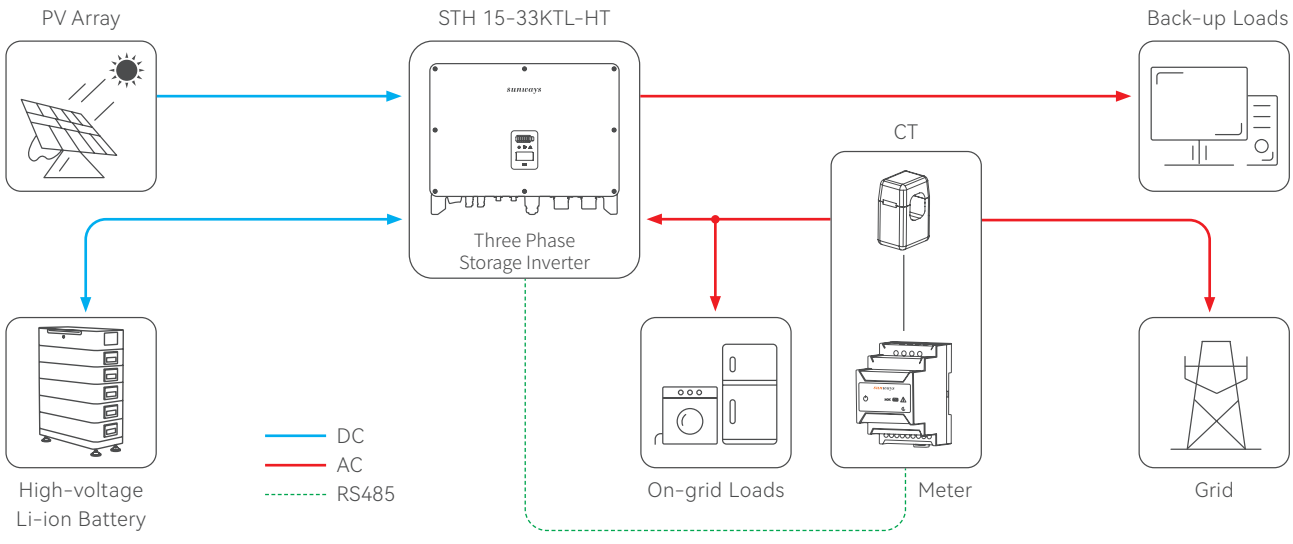
Fast and easy data checking and commissioning via App or OLED display.

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
	Max. Short-circuit Current (A)	40/40	40/40	40/40	40/40	40/40	40/40	40/40
Battery	Battery Communication Mode	CAN / RS485						
	Battery Voltage Range (V)	200-800						
	Max. Charge/Discharge Current (A)	50/50						
	Rated Current of Built-in Fuse (A)	125						
Output (Grid)	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)						
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60
	THDi @ Rated Power	<3%						
Efficiency	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	
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)	640*490*290
Weight (kg)	48
Protection Degree	IP66
Self-consumption at Night (W)	<15
Topology	Transformerless
Operating Temperature Range (℃)	-30~60
Relative Humidity (%)	0~100
Operating Altitude (m)	3000
Cooling	Smart Fan Cooling
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.