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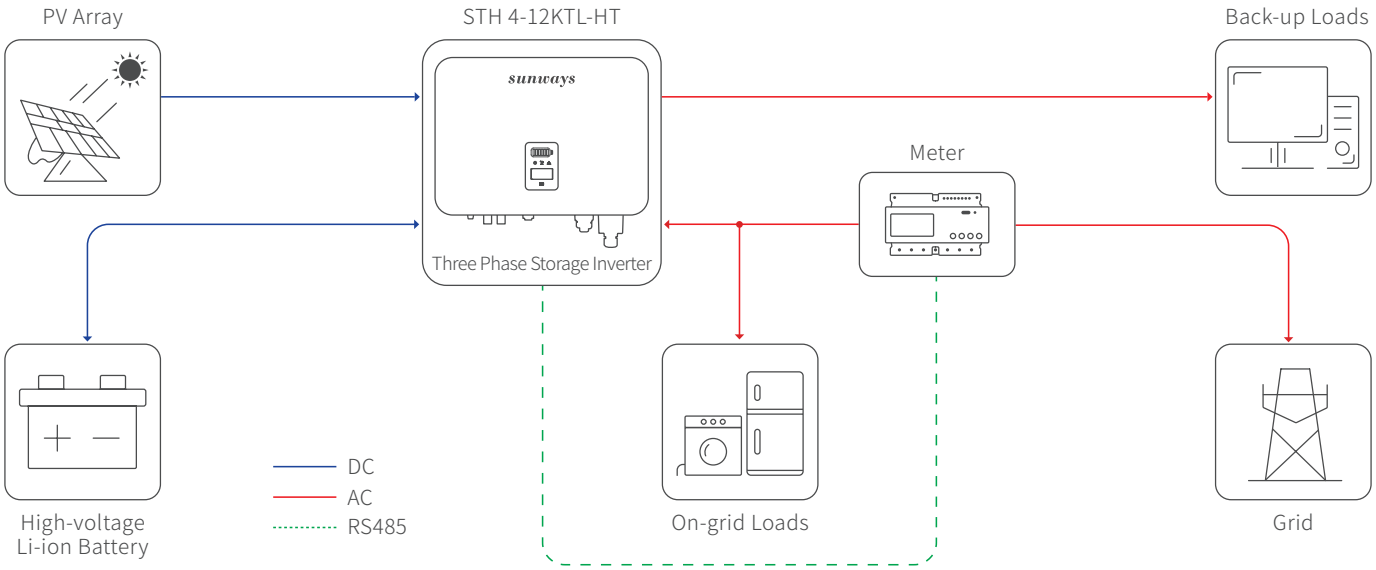
Sunways Three Phase Storage Inverter

STH-4K/5K/6K/8K/10K/12KTL-HT

MAX 98.2% EFFICIENCY

IP65 PROTECTION

Max. efficiency up to 98.2%	Support unbalance output on both on-grid and back-up side	Fanless design, ultra-silence
Powerful load adaptability, support multiple loads stable access	Oled display+App, two ways for data checking and management	180~750V super wide battery voltage range, adapt to bigger capacity battery
New pin type AC connector introduced, easy to use and safer	BMS Intelligent BMS management, power dispatching from PV, Battery and Grid is more flexible	UPS Uninterruptible power supply, switch to off-grid mode within 10ms



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TECHNICAL PARAMETERS

THREE PHASE:STH-4K/5K/6K/8K/10K/12KTL-HT

Model		STH-4KTL-HT	STH-5KTL-HT	STH-6KTL-HT	STH-8KTL-HT	STH-10KTL-HT	STH-12KTL-HT
PV Input	Max. Input Power (W)	5,200	6,500	7,800	10,400	13,000	15,600
	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
	No. of MPP Trackers	2	2	2	2	2	2
	No. of PV Inputs	1/1	1/1	1/1	1/1	1/1	1/1
	Max. Input Current (A)	13/13	13/13	13/13	13/13	13/13	13/13
	Max. Short-circuit Current (A)	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)	180-750					
	Max. Charge/Discharge Current (A)	25/25					
	Rated Current of Built-in Fuse (A)	63					
Output (Grid)	Rated Output Power (kW)	4	5	6	8	10	12
	Max. Output Power (kW)	4.4	5.5	6.6	8.8	11	13.2
	Max. Apparent Power (kVA)	4.4	5.5	6.6	8.8	11	13.2
	Max. Input Apparent Power (kVA)	8①	10①	12①	16①	16.5①	16.5①
	Max. Charging Power of Battery (kW)	4	5	6	8	10	12
	Rated Output Voltage (V)	3L/N/PE, 230/400V					
	Rated AC Frequency (Hz)	50/60Hz 45-55Hz/55-65Hz					
	Max. Output Current (A)	6.7	8.3	10	13.3	16.5	20
	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)	3L/N/PE, 230/400V					
	Rated AC Frequency (Hz)	50/60Hz 45-55Hz/55-65Hz					
	Max. Apparent Output Power (kVA)	4.4	5.5	6.6	8.8	11	13.2
	Peak Overload Apparent Power (kVA)	8②, 60s	10②, 60s	12②, 60s	16②, 60s	20②, 60s	20②, 60s
	Peak Output Apparent Power/per Phase (kVA)	1.6③	2.1③	2.6③	3.3③	4③	5③
	Voltage Harmonic Distortion	<3% @Linear Load					
Efficiency	Max. Efficiency	98.1%	98.1%	98.1%	98.2%	98.2%	98.2%
	European 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	
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
DC Switch	Optional
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	
Dimensions (mm)	550W*410H*175D
Weight (kg)	26~28
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、NRS097-2-1

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.
③ Peak output apparent of power per phase is the max output apparent power that won't trigger the overload protection.

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