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Sunways Three Phase Storage Inverter with Two MPPT

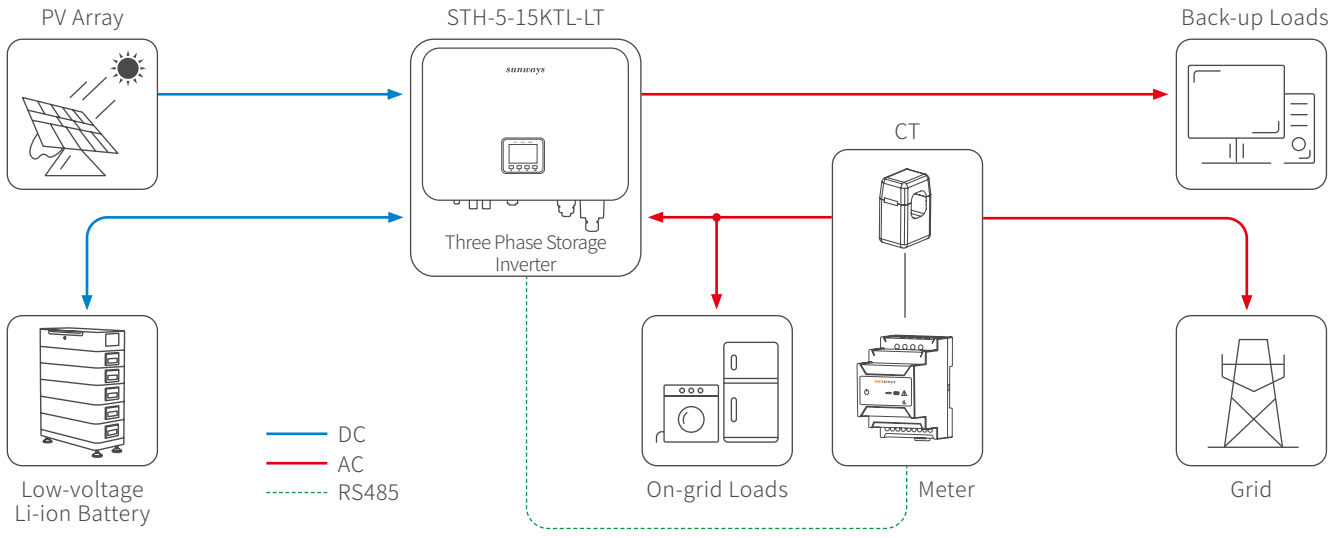
STH-5-15KTL-LT



MAX 98.2% EFFICIENCY

IP65 PROTECTION

- Max. efficiency up to 98.2%
- Up to 110% phase unbalanced output available on both on-grid and back-up outputs.
- Support back-up paralleling connection of up to 10 units.
- Fast charging/discharging of up to 200A to meet the demand of higher consumption and energy trading.
- Arbitrary phase of back-up output allows up to 125% overloading ability.
- Maximum 200% back-up output overloading @60s.
- UPS — Uninterruptible power supply, switch to off-grid mode within 10ms
- Friendly & Thoughtful Design: Easy installation, Elegant and compact design



TECHNICAL PARAMETERS

THREE PHASE:STH-5-15KTL-LT

Model		STH-5KTL-LT	STH-6KTL-LT	STH-8KTL-LT	STH-10KTL-LT	STH-12KTL-LT	STH-15KTL-LT
PV Input	Start-up Voltage (V)	160	160	160	160	160	160
	Max. DC Input Voltage (V)	1000	1000	1000	1000	1000	1000
	Rated DC Input Voltage (V)	600	600	600	600	600	600
	MPPT Voltage Range (V)	200-850	200-850	200-850	200-850	200-850	200-850
	No. of MPP Trackers	2	2	2	2	2	2
	No. of DC Inputs per MPPT	1/1	1/1	1/1	1/1	1/1	1/1
	Max. Input Current (A)	16/16	16/16	16/16	16/16	16/16	16/16
	Max. Short-circuit Current (A)	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)	42-58					
	Max. Charge/Discharge Current (A)	100/100	100/100	200/200	200/200	200/200	200/200
	Rated Current Of Built-in Fuse (A)	150	150	300	300	300	300
Output (Grid)	Rated Output Power (W)	5,000	6,000	8,000	10,000	12,000	15,000
	Max. Output Power (W)	5,500	6,600	8,800	11,000	13,200	16,500
	AC output rated apparent power (VA)	5,000	6,000	8,000	10,000	12,000	15,000
	Max. Apparent Power (VA)	5,500	6,600	8,800	11,000	13,200	16,500
	Max. Input Apparent Power (VA)	10,000①	12,000①	16,000①	16,500①	16,500①	16,500①
	Rated Output Voltage (V)	3L/N/PE, 220/230/240V					
	Rated AC Frequency (Hz)	50/60					
	AC output rated current (A)	7.3	8.7	11.6	14.5	17.4	21.7
	Max. Output Current (A)	8.3	10	13.3	16.5	20	25
	The measured Inrush current (A)	7A@4.4ms	7A@4.4ms	7A@4.4ms	7A@4ms	7A@4ms	7A@4ms
	Maximum output fault current (A)	33	33	33	40	40	40
	Maximum output overcurrent protection (A)	33	33	33	40	40	40
	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)	5,000	6,000	8,000	10,000	12,000	15,000
	Max. Output Power (W)	5,500	6,600	8,800	11,000	13,200	16,500
	Back-up output rated apparent power (VA)	5,000	6,000	8,000	10,000	12,000	15,000
	Max. Apparent Power (VA)	5,500	6,600	8,800	11,000	13,200	16,500
	Back-up output rated current (A)	7.3	8.7	11.6	14.5	17.4	21.7
	Max. Output Current (A)	8.3	10	13.3	16.5	20	25
	UPS switching time	<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
	Rated Output Voltage (V)	3L/N/PE, 230/400					
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
	Peak output apparent power (VA)	10,000②, 60s	12,000②, 60s	16,000②, 60s	20,000②, 60s	20,000②, 60s	20,000②, 60s
	Voltage harmonic distortion	<3% @Linear load					
Efficiency	Max. Efficiency	98.1%	98.1%	98.2%	98.2%	98.2%	98.2%
	European Efficiency	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%
	Max battery charging conversion efficiency	97.2%	97.2%	97.3%	97.3%	97.3%	97.3%
	Max battery discharge conversion efficiency	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 Protection	Integrated
DC Switch	Optional
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Anti-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
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	TFT3.5 LCD/ OLED
Communication	WiFi/GPRS/LAN (Optional)

Compliance

IEC62109, EN61000, C10/C11, VDE 4105, UNE217001, UNE217002, RD647, RD1699, CEI021, G99, EN62477, NRS097-2-1, EN50549, NRS097-2-1, UE2016/631, TOR Erzeuger Type A, OVE-Richitlinie R 25

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.
② Only one of the three phases can reach up to 1.25 times, and the other two phases should be less than 1.1.

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