

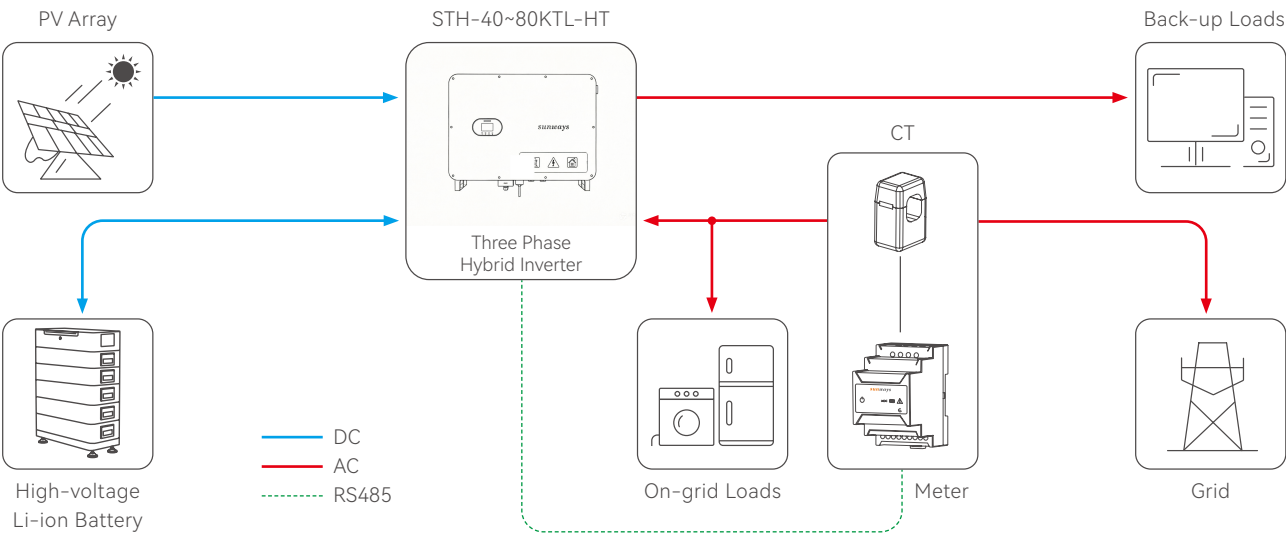
• MAX. EFFICIENCY 98.2%
• IP66 PROTECTION

STH 40~80kW

Three Phase | 5 MPPTs | Hybrid inverter (HV)



- Max. Efficiency up to 98.2%.
- Maximum 44A input current per MPPT, support high power solar panel.
- AFCI optional
- Fast and easy data checking and commissioning via App or OLED display.
- 200~920V wide battery connection range to store more energy and optimize self-sufficiency rate.
- Diversified work modes that are compatible with the majority of application scenarios.
- Uninterruptible power supply, switch to off-grid mode within 10ms.
- Powerful load adaptability, support loads stable access.



Model		STH-40KTL-HT	STH-50KTL-HT	STH-60KTL-HT	STH-70KTL-HT	STH-80KTL-HT
PV Input	Start-up Voltage (V)	180	180	180	180	180
	Max. DC Input Voltage (V)	1100 ^①	1100 ^①	1100 ^①	1100 ^①	1100 ^①
	Rated DC Input Voltage (V)	620	620	620	620	620
	MPPT Voltage Range (V)	180-1000 ^②	180-1000 ^②	180-1000 ^②	180-1000 ^②	180-1000 ^②
	No. of MPP Trackers	4	5	5	5	5
	No. of DC Inputs per MPPT	2/2/2/2	2/2/2/2/2	2/2/2/2/2	2/2/2/2/2	2/2/2/2/2
	Max. Input Current (A)	44/44/44/44	44/44/44/44/44	44/44/44/44/44	44/44/44/44/44	44/44/44/44/44
	Max. Short-circuit Current (A)	55/55/55/55	55/55/55/55/55	55/55/55/55/55	55/55/55/55/55	55/55/55/55/55
Battery	backfeed current to the array (A)	0	0	0	0	0
	Battery communication mode	CAN / RS485				
	Battery voltage range (V)	200-920				
	Number of battery input	2				
Output (Grid)	Max. charge / discharge current(A)	180 (90x2)				
	Rated Output Power (kW)	40	50	60	70	80
	Max. Output Power (kW)	44	55	66	77	88
	AC output rated apparent power (kVA)	40	50	60	70	80
	Max. Apparent Power (kVA)	44	55	66	77	88
	Max. Input Apparent Power (kVA)	60(Max charging power of battery 40KW)	75(Max charging power of battery 50KW)	90(Max charging power of battery 60KW)	105(Max charging power of battery 70KW)	120(Max charging power of battery 80KW)
	Rated Output Voltage (V)	3 / N / PE, 230 (400)				
	Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60	50/60
	AC output rated current (A)	58	72.5	87	101.4	115.9
	Max. Output Current (A)	66.7	83.3	100	116.7	133.3
	Power Factor	0.8 leading...0.8 lagging				
	Max. total harmonic distortion	<3% @Rated Output Power				
	DCI	<0.5%In				
	Rated Output Power (kW)	40	50	60	70	80
Output (Back-up)	Max. Output Power (kW)	44	55	66	77	88
	Max. Apparent Power (kVA)	44 (48 @ 60sec, 60 @ 10sec)	55 (60 @ 60sec, 75 @ 10sec)	66 (72 @ 60sec, 90 @ 10sec)	77 (84 @ 60sec, 105 @ 10sec)	88 (96 @ 60sec, 120 @ 10sec)
	Back-up output rated current (A)	58	72.5	87	101.4	115.9
	Max. Output Current (A)	66.7	83.3	100	116.7	133.3
	UPS switching time	<10ms				
	Rated Output Voltage (V)	3/N/PE 230 (400)				
	Rated AC Frequency (Hz)	50/60				
	Voltage harmonic distortion	<3% @Linear load				
Efficiency	Max. Efficiency	98.10%	98.10%	98.20%	98.20%	98.20%
	European Efficiency	97.30%	97.30%	97.40%	97.40%	97.40%
	MPPT Efficiency	99.90%	99.90%	99.90%	99.90%	99.90%
	Max battery charging conversion efficiency	97.20%	97.20%	97.30%	97.30%	97.30%
	Max battery discharge conversion efficiency	97.20%	97.20%	97.30%	97.30%	97.30%

Protection	
DC Reverse Polarity Protection	Integrated
Battery input reverse connection protection	Integrated
Insulation Resistance Protection	Integrated
DC Switch	Optional
AFCI	Optional
Surge Protection	Integrated
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)	995*778*356
Weight (KG)	95
Protection Degree	IP66
Topology	Transformerless
Operating Temperature Range (°C)	-30~60
Relative Humidity (%)	0~100
Operating Altitude (m)	3000
Cooling	Smart Fan Cooling
Noise Level (dB)	<50
Display	OLED & LED
Communication	WiFi/GPRS/LAN (Optional)

① The maximum input voltage is the maximum DC input voltage that the inverter can withstand exceeding this voltage may cause damage, and such damage is not covered under warranty.

② The inverter's operating voltage range under extreme low temperatures should be within 160V to 1000V, not the open circuit voltage range. Exceeding this range may cause the inverter to go into standby mode.