

SH5/10T

Hybrid Three Phase Inverter

NEW



FULL BACKUP

- Built-in 63A bypass for full house backup
- 10ms seamless switch



FLEXIBLE APPLICATION

- Support 100% unbalance output in backup and on grid mode
- Max. 16A DC input current per string
- 50A fast charge/ discharge current



FRIENDLY INSTALLATION

- Plug & Play installation
- Quiet operation for indoor or outdoor installation



SAFE AND DURABLE

- Support precise AFCI
- IP65/C5



© 2023 Sungrow Power Supply Co., Ltd. All rights reserved. Subject to change without notice. Version 1.2

Type designation	SH5T	SH10T
Input (DC)		
Recommended max. PV input power	10000 Wp	20000 Wp
Max. PV input voltage		1000 V
Min. PV input voltage / Startup input voltage		150 V / 180 V
Rated PV input voltage		600 V
MPPT voltage range*		150 V - 950 V
No. of independent MPP trackers		2
No. of PV strings per MPPT	1 / 1	2 / 1
Max. PV input current	32 A (16 A / 16 A)	48 A (32 A / 16 A)
Max. DC short-circuit current	40 A (20 A / 20 A)	60 A (40 A / 20 A)
Max. current for input connector		30A
Battery Data		
Battery type		Li-ion battery
Battery voltage		100 V - 700 V
Max. charge / discharge current		50 A ** / 50 A **
Max. charge / discharge power	15000 W / 5000 W	15000 W / 10000 W
Input / Output (AC)		
Max. AC power from grid		43000VA****
Rated AC output power	5000 W	9999 W
Max. AC output apparent power	5000 VA	9999 VA
Max. AC output current	7.6 A	15.2 A
Rated AC voltage		3 / N / PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V
AC voltage range		270 V - 480 V
Rated grid frequency		50 Hz / 60 Hz
Grid frequency range		45Hz - 55 Hz / 55 Hz - 65 Hz
Harmonic (THD)		< 3 % (of rated power)
Power factor at Rated power / Adjustable power factor		> 0.99 / 0.8 leading to 0.8 lagging
Feed-in phases/connection phases		3 / 3-N-PE
Backup data (on grid mode)		
Max. output power for backup load		43000 W***
Max. output current for backup load		3 * 63 A
Backup data (off-grid mode)		
Rated voltage		3 / N / PE, 220 / 380 V; 230 / 400 V; 240 / 415 V (± 2 %)
Rated frequency		50 Hz / 60 Hz (± 0.2 %)
THDV(@Linear load)		< 2 %
Backup switch time		< 10 ms
Rated output power	5000W / 5000VA	10000W / 10000 VA
Peak output power ****	10000 W / 10000 VA, 10 s	15000 W / 15000 VA, 10 s
Efficiency		
Max. efficiency / European efficiency	97.9 % / 97.2 %	98.0 % / 97.5 %
Protection & Function		
Grid monitoring		Yes
DC reverse polarity protection		Yes
AC short-circuit protection		Yes
Leakage current protection		Yes
DC switch (solar)		Yes
Surge Protection		DC Type II / AC Type II
RO Zero		Yes
Battery input reverse polarity protectio		Yes
General data		
Topology (solar / battery)		Transformerless / Transformerless
Degree of protection		IP65
Dimensions (W * H * D)		620 mm * 480 mm * 195 mm
Weight		32 kg
Mounting method		Wall-mounting bracket
Operating ambient temperature range		-25 °C to 60 °C
Allowable relative humidity range(Non-condensing)		0 % - 100 %
Cooling method		Natural convection
Max. operating altitude		2000
Noise(Typical)		35 dB (A)
Display		LED
Communication		RS485, WLAN, Ethernet, CAN
DI / DO		DI * 4 / DO * 2 / DRM0
DC connection type		MC4 (PV, Max.6mm ²) / Plug and play connector (battery, Max.10mm ²)
AC connection type		Plug and play connector (Max.16mm ²)
Compliance		IEC / EN 62109, IEC 61000-6, EN 62477-1, IEC 61727, IEC62116, IEC62920, EN55011, CISPR 11, VDE-AR-N-4105, EN50549-1
Country of manufacture		China

*Please refer to the user manual for the full load MPPT voltage range

** Depending on the connected battery

*** Please refer to the user manual and modify the settings based on actual load power

**** Can be reached only if PV and battery power is sufficient

