

SH15/20/25T

Hybrid Three Phase Inverter



FULL BACKUP

- Built-in 63 A bypass for whole home backup
- 10 ms seamless switch
- Peak output up to 36500 VA (10 s) in backup mode (SH25T)



FLEXIBLE APPLICATION

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



FRIENDLY INSTALLATION

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



SAFE AND DURABLE

- Support precise AFCI
- IP65/C5



Type designation	SH15T		SH20T		SH25T	
Input (DC)						
Recommended max. PV input power	30000 Wp		40000 Wp		50000 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 operating voltage range **			150 V - 950 V			
No. of independent MPP trackers			3			
No. of PV strings per MPPT			2 / 2 / 1			
Max. PV input current			80 A (32 A / 32 A / 16 A)			
Max. DC short-circuit current			100 A (40 A / 40 A / 20 A)			
Max. current for input connector			30 A			
Battery data						
Battery type			Li-ion battery			
Battery voltage range			100 V - 700 V			
Max. charge / discharge current ***			50 A / 50 A			
Max. charge / discharge power	30000 W / 15000 W		30000 W / 20000 W		30000 W / 25000 W	
Input and Output (AC)						
Max. AC power from grid ****			43000 VA			
Rated AC output power	15000 W		20000 W		25000 W	
Max. AC output apparent power	15000 VA		20000 VA		25000 VA	
Max. AC output current	22.8 A		30.4 A		37.9 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	45 Hz - 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	15000 W / 15000 VA		20000 W / 20000 VA		25000 W / 25000 VA	
Peak output power *****	25500 W / 25500 VA ,10 s		32000 W / 32000 VA ,10 s		36500 W / 36500 VA ,10 s	
Efficiency						
Max. efficiency / European efficiency	98.1 % / 97.6 %				98.2 % / 97.8 %	
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					
PID zero	Yes					
Battery input reverse polarity protection	Yes					
General data						
Topology (solar / battery)	Transformerless / Transformerless					
Degree of protection	IP65					
Dimensions (W * H * D)	620 mm * 480 mm * 245 mm					
Weight	38 kg				40 kg	
Mounting method	Wall-mounting bracket					
Operating ambient temperature range	-25 °C - 60 °C					
Allowable relative humidity range(Non-condensing)	0 % - 100 %					
Cooling method	Natural convection				Fan cooling	
Max. operating altitude	2000 m					
Noise(Typical)	35 dB (A)				50 dB (A)	
Display	LED					
Communication	RS485, WLAN, Ethernet, CAN					
DI / DO	DI * 4 / DO * 2 / DRM0					
DC connection type	MC4 compatible connector (PV,Max.6 mm²) /Plug and play connector (battery, Max.10 mm²)					
AC connection type	Plug and play connector (Max.16 mm²)					
Compliance	IEC / EN 62109, IEC 61000-6, EN 62477-1, IEC 61727, IEC 62116, IEC 62920, EN 55011, CISPR 11, VDE-AR-N-4105, EN 50549-1, NRS 097, AS/NZS 4777.2:2020, TOR Type A, R25, CEI 0-21					

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** 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

