

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 mm ²) /Plug and play connector (battery, Max.10 mm ²)			
AC connection type	Plug and play connector (Max.16 mm ²)			
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, CFI 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

