

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 , 10s | 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 / DRMO | |
| 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, CEI 0-21 | | |
| Country of manufacture | China | | |

* 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

