

SH5.0/10RT

Residential Hybrid Three phase Inverter



FLEXIBLE APPLICATION

- 150–600V wide battery voltage range
- Supports parallel connection with full communication between inverters
- Provides 100% unbalance loads in backup mode



ENERGY INDEPENDENCE

- Seamless transition to backup mode for protection against power outages
- Fast charging/discharging to meet the demand of higher consumption and energy trading



SMART MANAGEMENT

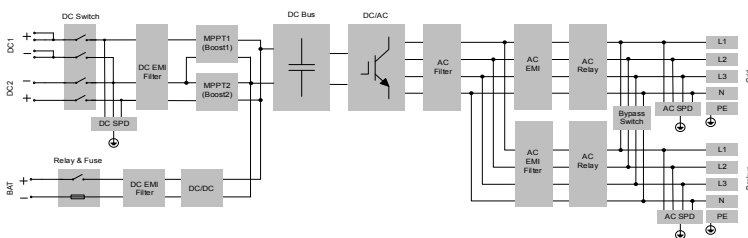
- High self-consumption with optimised built-in EMS
- Free online monitoring to enhance energy management for end user, installer and retailer
- Remote firmware update and customisable settings



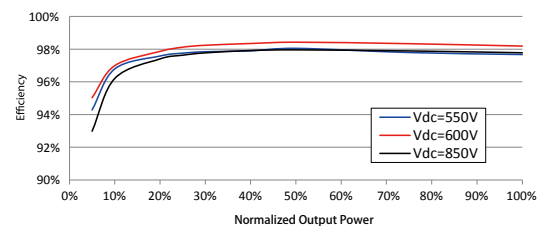
EASY INSTALLATION

- Unique push-in connectors for time-saving installation
- Touch free commissioning with smartphone
- Lightweight and compact

CIRCUIT DIAGRAM



EFFICIENCY CURVE



| Type designation | SH5.0RT | SH10RT |
|--|---|--|
| PV Input | | |
| Max. PV input power | 7500 W | 15000 W |
| Max. PV input voltage | | 1000 V |
| Startup voltage | 180 V | 250 V |
| Nominal input voltage | | 600 V |
| MPP voltage range | 150 V - 950 V | 200 V - 950 V |
| MPP voltage range for nominal power | 210 V - 850 V | 280 V - 850 V |
| No. of MPPTs | | 2 |
| Max. number of PV strings per MPPT | 1 / 1 | 1 / 2 |
| Max. PV input current | 25 A (12.5 A / 12.5 A) | 37.5 A (12.5 A / 25 A) |
| Max. current for input connector | | 16 A |
| Short-circuit current of PV input | 32 A (16 A / 16 A) | 48 A (16 A / 32 A) |
| AC Input and Output | | |
| Nominal AC output power | 5000 W | 10000 W |
| Nominal AC output current | 7.3 A | 14.5 A |
| Max. AC output apparent power | 5000 VA | 10000 VA |
| Max. AC output current | 7.6 A | 15.2 A |
| Nominal AC voltage | | 3 / N / PE, 220 / 380 V; 230 / 400 V; 240 / 415 V |
| AC voltage range | | 270 - 480 V |
| Nominal grid frequency / Grid frequency range | | 50 Hz / 45 - 55 Hz, 60 Hz / 55 - 65 Hz |
| THD | | <3 % (of nominal power) |
| DC current injection | | <0.5 % In |
| Power factor at nominal power / Adjustable power factor | | >0.99 / 0.8 leading to 0.8 lagging |
| Protection | | |
| LVRT | | Yes |
| Anti-islanding protection | | Yes |
| AC short circuit protection | | Yes |
| Leakage current protection | | Yes |
| DC switch (solar) | | Yes |
| DC fuse (battery) | | Yes |
| Overvoltage category | | III [MAINS], II [PV] [BATTERY] |
| SPD | | DC Type II / AC Type I |
| Battery Data | | |
| Battery type | | Li-ion battery |
| Battery voltage | | 150 V - 600 V |
| Max charge / discharge current | | 30 A* / 30 A* |
| Max charge / discharge power | 7500 W / 6000 W | 10600 W / 10600 W |
| Battery Data | | |
| Max. efficiency | 98.0% | 98.4% |
| European efficiency | 97.2% | 97.9% |
| Isolation method (solar / battery) | | Transformerless / Transformerless |
| Degree of protection | | IP65 |
| Operating ambient temperature range | | -25 °C - 60 °C |
| Allowable relative humidity range (non-condensing) | | 0% - 100% |
| Cooling method | | Natural convection |
| Max. operating altitude | | 4000 m (>3000 m derating) |
| Noise (Typical) | | 30dB (A) |
| Display | | LED |
| Communication | | RS485, WLAN, Ethernet, CAN, 4×DI, 1×DO |
| DC connection type | | MC4 (PV) / Sunclix (Battery) |
| AC connection type | | Plug and play connector |
| Compliance | | IEC / EN 62109-1, IEC / EN 62109-2, IEC / EN 61000-6-1, IEC / EN 61000-6-3, IEC / EN 61000-3, EN 62477-1, VDE-AR-N-4105, AS / NZS 4777.2 |
| Mechanical Data | | |
| Dimensions (W * H * D) | | 460 * 540 * 170 mm |
| Mounting method | | Wall-mounting bracket |
| Weight | | 27 kg |
| Backup Data | | |
| Nominal voltage | | 3 / N / PE, 220 Vac / 230 Vac / 240 Vac |
| Frequency range | | 50Hz / 60Hz |
| Total harmonic factor output voltage | | 2% |
| Switch time to emergency mode | | < 20ms |
| Nominal output power | 5000 W / 5000 VA | 10000 W / 10000 VA |
| Peak output power | 6000 W / 6000 VA,5min 10000 W / 10000 VA,10s | 12000 W / 12000 VA,5min |
| Parallel operation | | Yes / 2 |

* Depending on the connected battery

