

SH5.0/6.0RS

Residential Hybrid Single Phase Inverter

NEW



FLEXIBLE APPLICATION

- 80~460 V wide battery voltage range
- Ideal for both retrofitting and new installations
- Built-in smart PID recovery function



ENERGY INDEPENDENCE

- Seamless transition to backup mode, for protection against power outages
- Fast Charging or discharging, enabling higher self-consumption results
- Built-in EMS with advanced customization



USER FRIENDLY SETUP

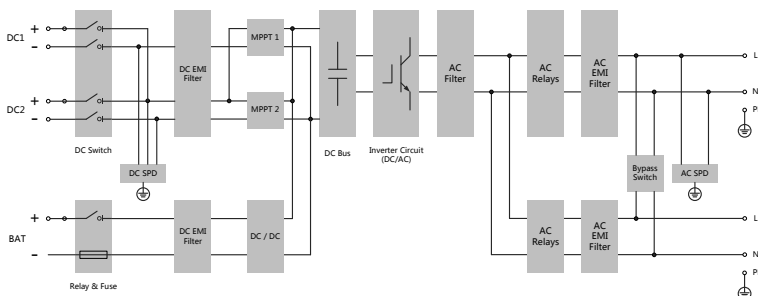
- Plug and play installation
- iSolarCloud monitoring available on App and Web
- Lightweight and compact, optimized for heat-dissipation



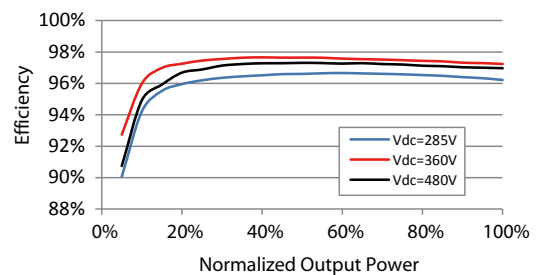
SMART MANAGEMENT

- Real time data (10 seconds refresh sample)
- 24/7 live monitoring both online and with integrated display
- Online IV curve scan and diagnosis

CIRCUIT DIAGRAM



EFFICIENCY CURVE



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| Type designation | SH5.0RS | SH6.0RS |
|--|------------------|--|
| Input (DC) | | |
| Recommended max. PV input power | 12000 Wp | 13000 Wp |
| Max. PV input voltage | | 600 V |
| Min. operating PV voltage / Start-up input voltage | | 40 V / 50 V |
| Rated PV input voltage | | 360 V |
| MPP voltage range | | 40V – 560 V |
| No. of independent MPP inputs | | 2 |
| Default No. of PV strings per MPPT | | 1 |
| Max. PV input current | | 32 A (16 A/16 A) |
| Max. DC short-circuit current | | 40 A (20 A/20 A) |
| Input / Output (AC) | | |
| Max. AC input power from grid | 12000 VA | 13000 VA |
| Rated AC output power | 5000 W* | 6000 W |
| Max. AC output power | 5000 VA* | 6000 VA |
| Rated AC output current (at 230 V) | 21.8 A** | 26.1 A |
| Max. AC output current | 22.8 A** | 27.3 A |
| Rated AC voltage | | 220 / 230 / 240 V |
| AC voltage range | | 154 V – 276 V |
| Rated grid frequency / | | 50 Hz / 45 – 55 Hz |
| Grid frequency range | | 60 Hz / 55 – 65 Hz |
| Harmonic (THD) | | <3 % (of rated power) |
| Power factor at rated power / | | >0.99 at default value at rated power |
| Adjustable power factor | | (adj. 0.8 overexcited/leading to 0.8 underexcited/lagging) |
| Feed-in phases / connection phases | | 1 / 1 |
| Efficiency | | |
| Max. efficiency / European efficiency | 97.7 % / 97.3 % | 97.7 % / 97.3 % |
| Protection & Function | | |
| Grid monitoring | | Yes |
| DC reverse polarity protection | | Yes |
| AC short circuit protection | | Yes |
| Leakage current protection | | Yes |
| Surge Protection | | DC Type II / AC Type II |
| DC switch(solar) | | Yes |
| DC fuse(battery) | | Yes |
| PID recovery function | | Yes |
| Battery input reverse polarity protection | | Yes |
| Battery Data | | |
| Battery type | | Li-ion battery |
| Battery voltage | | 80 V – 460 V |
| Max charge / discharge current | | 30 A / 30 A |
| Max charge / discharge power | | 6600 W |
| General Data | | |
| Dimensions (W * H * D) | | 490 * 340 * 170 mm |
| Weight | | 18.5 kg |
| Mounting method | | Wall-mounting bracket |
| Topology (Solar / Battery) | | Transformerless / Transformerless |
| Degree of protection | | IP65 |
| Operating ambient temperature range | | -25 °C to 60 °C |
| Allowable relative humidity range | | 0 % – 100 % |
| Cooling method | | Natural convection |
| Max. operating altitude | | 4000 m |
| Display | | LED digital display & LED indicator |
| Communication | | RS485 / Ethernet / WLAN / CAN |
| DI / DO | | DI * 4 / DO * 1 / DRM |
| DC connection type | | MC4 (PV) / Sunclix (Battery) |
| AC connection type | | Plug and Play |
| Grid compliance | | IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-3-11, IEC/EN 61000-3-12, EN 62477-1, AS/NZS 4777.2, EN 50549-1, CEI 0-21, G98 / G99 |
| Backup Data (on grid mode) | | |
| Rated output power for backup load | | 6000 W |
| Rated output current for backup load | | 27.3 A |
| Backup Data (off-grid mode) | | |
| Rated voltage | | 220 V / 230 V / 240 V (±2 %) |
| Frequency range | | 50 Hz / 60 Hz (±0.2 %) |
| Total output THDv for linear load | | < 2 % |
| Switch time to emergency mode | | < 10 ms |
| Rated output power | 5000 W / 5000 VA | 6000 W / 6000 VA |
| Peak output power | | 8400 VA, 10s |

* AS4777.2 4999W, 4999VA ** AS 4777.2 :Rated and Max. AC current is 21.7A

