

RSI-LF Series 120V Low Frequency Off Grid Solar Inverter

Feature:

- Rated power 1kw to 4kw (110V/120V)
- Pure sine wave output
- Powerful charge rate up to 70Amp
- Built-in MPPT solar charge controller 40A/60A
- MPPT efficiency max 98%
- Built-in pure copper UI transformer
- DIP Switch offer customized performance
- High Efficiency Design & "Power Saving Mode" to Conserve Energy
- Supporting RS232 communication, AGS, BTS port
- Remote control panel (optional)
- Compatible to generator



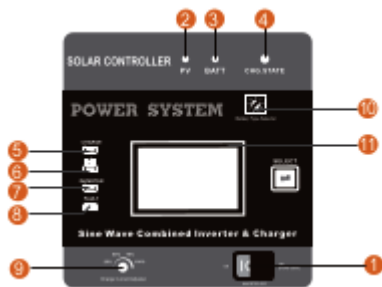
Introduction:

This is a multi-function inverter ,combining functions of inverter and mppt solar charger controller, solar charger and battery charger to offer uninterruptible power support with portable size. The comprehensive LCD display offers user-configurable and easy-accessible button operation such as battery charging current, AC/solar charger priority, and selectable input voltage based on different applications.

Back Panel

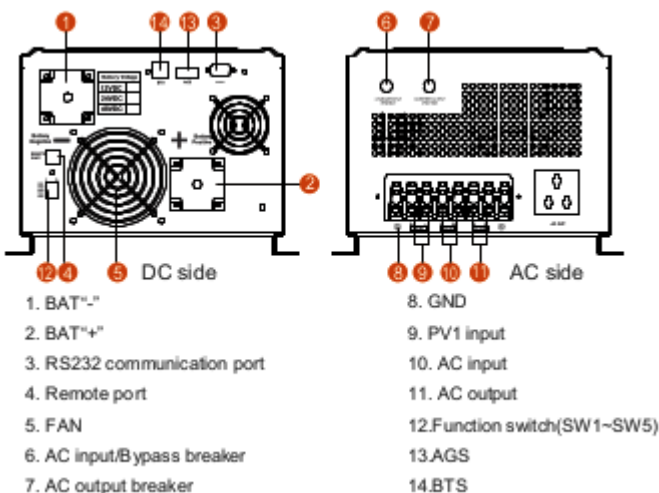


LCD/LED Display Information



- | | |
|-----------|---|
| 1. Switch | ON(Power saver): Power on with saver mode(power saver $\leq 25W$) INVERTER OFF: Power totally off(If there is AC power, inverter have charge function) ON: Power on without saver mode |
|-----------|---|
- 2. PV voltage normal
 - 3. Battery voltage normal
 - 4. PV Charging
 - 5. AC Charge
 - 6. AC power on
 - 7. inverter mode
 - 8. check inverter
 - 9. Charge current adjustable:25%,50%,75%,100%. (Optional)
 - 10. Battery type selector
 - 11. LCD display

Solar System Connection



| SPECIFICATION | | | | | | | | | | | | | |
|--------------------------------|---------------------------------------|---|--------------------|--------------------|------------------|------------------|------------------|------------------|------------------|-----------------------------------|------------------|-------|--|
| MODEL | RSI-1K-LF-12-120 | RSI-1K-LF-24-120 | RSI-1.5K-LF-12-120 | RSI-1.5K-LF-24-120 | RSI-2K-LF-12-120 | RSI-2K-LF-24-120 | RSI-3K-LF-12-120 | RSI-3K-LF-24-120 | RSI-3K-LF-48-120 | RSI-4K-LF-24-120 | RSI-4K-LF-48-120 | | |
| Nominal Battery System Voltage | 12VDC | 24VDC | 12VDC | 24VDC | 12VDC | 24VDC | 12VDC | 24VDC | 48VDC | 24VDC | 48VDC | | |
| INVERTER OUTPUT | Rated Power | 1KW | | 1.5KW | | 2KW | | 3KW | | 4KW | | | |
| | Surge Rating (20ms) | 3KW | | 4.5KW | | 6KW | | 9KW | | 12KW | | | |
| | Capable Of Starting Electric Motor | 1HP | | | | 2HP | | | | | | | |
| | Waveform | Pure sine wave/ same as input (bypass mode) | | | | | | | | | | | |
| | Nominal Output Voltage RMS | 110V/120VAC | | | | | | | | | | | |
| | Output Frequency | 50Hz/60Hz +/-0.3 Hz | | | | | | | | | | | |
| | Inverter Efficiency(Peak) | >88% | | | | | | | | | | | |
| | Line Mode Efficiency | >95% | | | | | | | | | | | |
| | Power Factor | 1.0 | | | | | | | | | | | |
| Typical Transfer Time | 10ms(max) | | | | | | | | | | | | |
| AC INPUT | Voltage | 120VAC | | | | | | | | | | | |
| | Selectable Voltage Range | 80-135VAC(For Personal Computers) | | | | | | | | | | | |
| | Frequency Range | 50Hz/60Hz (Auto sensing) 40-80Hz | | | | | | | | | | | |
| BATTERY | Minimum Start Voltage | 10.0VDC /10.5VDC for12VDC mode (*2 for 24VDC,) | | | | | | | | 20.0VDC-21.0VDC/ 40.0VDC-42.0VDC | | | |
| | Low Battery Alarm | 10.5VDC+/-0.3V for12VDC mode (*2 for 24VDC,) | | | | | | | | 21.0VDC+/-0.6V /42.0VDC+/-1.2V | | | |
| | Low Battery Cutoff | 10.0VDC+/-0.3V for12VDC mode (*2 for 24VDC,) | | | | | | | | 20.0VDC+/-0.6V /40.0VDC+/-1.2V | | | |
| | High Voltage Alarm | 16.0VDC+/-0.3V for12VDC mode (*2 for 24VDC,) | | | | | | | | 32.0VDC+/-0.6V /64.0VDC+/-1.2V | | | |
| | High Battery Voltage Recover | 15.5VDC+/-0.3V for12VDC mode (*2 for 24VDC,) | | | | | | | | 31.0VDC+/-0.6V / 62.0VDC+/-1.2V | | | |
| | Idle Consumption-Search Mode | <25W when power saver on | | | | | | | | <50W when power saver on | | | |
| CHARGER | Output Voltage | Depends on battery type | | | | | | | | | | | |
| | Charger AC Input Breaker Rating | 10A | | | 30A | | | | 40A | | | | |
| | Overcharge Protection S.D. | 15.7VDC for 12VDC mode (*2 for 24VDC,) | | | | | | | | 31.4VDC/62.8VDC | | | |
| | Maximum Charge Current | 35A | 20A | 45A | 25A | 65A | 35A | 75A | 45A | 30A | 65A | 35A | |
| BYPASS & PROTECTION | Input Voltage Waveform | Sine wave (grid or generator) | | | | | | | | | | | |
| | Nominal Input Frequency | 50Hz or 60Hz | | | | | | | | | | | |
| | Overload Protection (SMPS Load) | Circuit breaker | | | | | | | | | | | |
| | Output Short Circuit Protection | Circuit breaker | | | | | | | | | | | |
| | Bypass Breaker Rating | 10A | | | 30A | | | | 40A | | | | |
| | Max Bypass Current | 30Amp | | | | 40Amp | | | | | | | |
| SOLAR CHARGER | Maximum PV Array Power | 600W | 1200W | 600W | 1200W | 600W | 1200W | 600W | 1200W | 2400W | 1600W | 3200W | |
| | Maximum PV Charge Current | 40A | | | | | | | | 45A | 60A | | |
| | DC Voltage | 12V/24V atuo work | | | | | | | | 24V/48V atuo work | | | |
| | MPPT Range @ Operating Voltage | 16-100VDC @12V / 32-145VDC @ 24V | | | | | | | | 32-145VDC @ 24V / 64-145VDC @ 48V | | | |
| | Maximum PV Array Open Circuit Voltage | 100VDC/145VDC | | | | | | | | 145VDC | | | |
| | Maximum Efficiency | >98% | | | | | | | | | | | |
| | Standby Power Consumption | <2W | | | | | | | | | | | |
| MECHANICAL SPECIFICATIONS | Mounting | Wall mount | | | | | | | | | | | |
| | Dimensions (W*H*D) | 423*247*197mm | | | | | | | | 597x247x197mm | | | |
| | Net Weight (kg) | 18.5 | 18.4 | 19.5 | 19.4 | 23.5 | 32.2 | 28.7 | 27 | 23.3 | 41.3 | 39.4 | |
| | Shipping Dimensions(W*H*D) | 570*355*300mm | | | | | | | | 743*372*312mm | | | |
| | Shipping Weight (kg) | 21.5 | 21.4 | 22.4 | 22.5 | 25.8 | 25.6 | 31.2 | 29.6 | 25.1 | 44.7 | 42.8 | |
| OTHER | Operation Temperature Range | 0°C to 40°C | | | | | | | | | | | |
| | Storage Temperature | -15°C to 60°C | | | | | | | | | | | |
| | Audible Noise | 60dB MAX | | | | | | | | | | | |
| | Display | LED+LCD | | | | | | | | | | | |
| | Standard Warranty | 1 year | | | | | | | | | | | |

*Product specifications are subject to change without further notice.

| Approximate Back-up Time Table | | | | | |
|--------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Power Rate(w) | backup time(H) @1*100Ah | backup time(H) @2*100Ah | backup time(H) @4*100Ah | backup time(H) @4*200Ah | backup time(H) @8*200Ah |
| 1000 | 0.4806 | 1.602 | 3.50304 | 7.6896 | |
| 2000 | 0.2136 | 0.4806 | 1.602 | 3.50304 | 7.6896 |
| 3000 | 0.1068 | 0.2848 | 0.8544 | 2.136 | 4.8416 |
| 4000 | | 0.2136 | 0.4806 | 1.602 | 3.50304 |