RiiO Sun II

Off-Grid Inverter

Single Phase | 230Vac

3kVA / 5kVA / 6kVA / 8kVA



RiiO Sun II is a robust, transformer-based inverter purpose-built for off-grid applications. It integrates a pure sine wave inverter, battery charger, MPPT solar charge controller, and a fast 4ms transfer switch. Designed with high start-up surge capability, it easily powers the most demanding appliances during off-grid operation.

- Transformer-based
- Parallel capability
- Dual MPPT trackers
- Programmable smart port

Superior Reliability

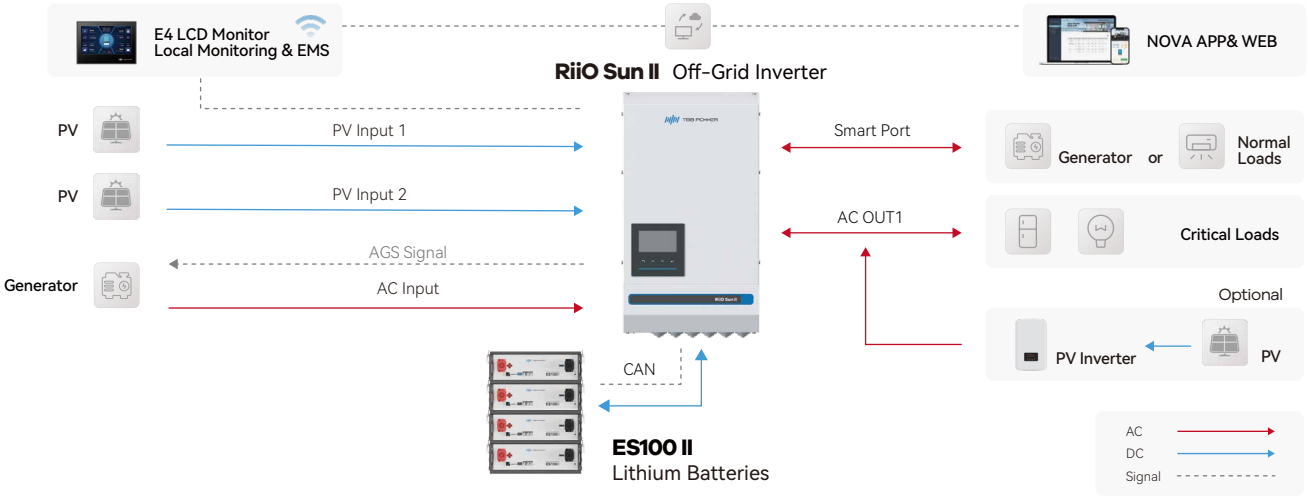
- Transformer-based design with 300% surge capability
- 4ms on/off-grid switching
- Maximize solar utilization and minimize energy waste
- Low idle power
- ECO Mode available

Enhanced Flexibility

- Robust for off-grid applications
- Parallel & three-phase up to 9 units, 72kVA
- Dual MPPT & smart port for GEN/load (5/6/8kVA)
- AC/DC coupling, AGS, Power Control & Power Assist
- Wide compatibility with lithium batteries & generators
- Battery-free operation available

Easy O&M

- All-in-one design for easy installation
- Auto restart on PV or AC recovery
- Bluetooth for local setup/monitoring (NOVA App)
- Remote monitoring and control via NOVA Web & App



Model	RiiO Sun II 3KVA-S	RiiO Sun II 5KVA-S	RiiO Sun II 6KVA-S	RiiO Sun II 8KVA-S Pro
Power Assist	Yes			
AC Input Range	175~265 VAC / 45~65Hz			
AC Input Current (Transfer Switch) (A)	32	50	50	50
Inverter				
Nominal Battery Voltage / Input Voltage (V)	48 / 42~68			
AC Output Voltage (VAC)	220/230/240 ± 2%			
AC Output Frequency (Hz)	50/60 ± 0.1%			
Harmonic Distortion / Surge	<2% / 300%			
Cont. Output Power at 25°C (VA)	3000	5000	6000	8000
Max Output Power at 25°C (W)	3000	5000	6000	8000
Peak Power (W)	6000	10000	12000	16000
Maximum Efficiency	93%	94%	94%	95%
Zero Load Power (W)	17	22	25	32
Charger				
Charge Voltage 'Absorption' / 'Float' (V)	57.6 / 55.2			
Battery Types	AGM / GEL / OPzV / Lead-Carbon / Flooded / Traction / Lithium			
Max AC Charge Current (A)	35	60	70	90
Temperature Compensation	Yes			
Solar Charge Controller				
Max Output Current (A)	60	100 (50 per tracker)		120 (60 per tracker)
Maximum PV Open Circuit Voltage (V)	250	250	250	250
MPPT Voltage Range (V)	65~245			
Number of MPPT Trackers	1	2	2	2
Maximum PV Input Current Per Tracker (A)	36	36+36	36+36	36+36
Max PV Short Circuit Current Per Tracker	40	40+40	40+40	40+40
Maximum Charge Power	3450W @ 57.6V	5760W @ 57.6V total, 2880W @ 57.6V per tracker		6900W @ 57.6V total, 3450W @ 57.6V per tracker
Allowable Maximum PV Power Per Tracker	5200	4400 + 4400		5200 + 5200
Charge Voltage 'Absorption' (V) / 'Float' (V)	57.6 / 55.2			
MPPT Charger Maximum Efficiency	98%			
MPPT Efficiency	>99.5%			
Protection	a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low; e) temperature too high; f) input voltage out of range;			
General Data				
AC Out1 Current (A)	32	50	50	50
Smart Port Current (A)	N/A	50	50	50
Transfer Time	4ms (<15ms in Weak AC source Mode)			
Protection	a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low; e) temperature too high; f) input voltage out of range; g) input voltage ripple too high; h) Fan block			
General Purpose Com. Port	RS485 (GPRS, WLAN optional)			
Programmable Relay	1x (30Vdc/3A or 250Vac/3A)			
Operating Temperature Range	-20°C to 65°C			
Relative Humidity in Operation	95% without condensation			
Altitude (m)	2000			
Mechanical Data				
Dimension (mm) (max)	499*272*144	570*310*154		620*320*164
Net Weight (kg)	18	29	31	34
Cooling / Protection Index	Forced fan / IP21			
Standards				
Safety	EN-IEC 62477-1, EN-IEC 62109-1, EN-IEC 62109-2			
EMC	EN-IEC 61000-6-1, EN-IEC 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12			

Note: Kinergy II-WiFi wireless data logger included as standard with RiiO Sun II.