

# RiiO II

## - Inverter Charger -



RiiO II Series is a versatile transformer-based inverter charger, designed for backup power, off-grid and ESS applications. It features high surge power for heavy loads and a 4ms quick transfer for uninterrupted critical load support during outages, supports up to 9 parallel units, three-phase expansion, and AGS function. Its smart port allows for dual AC inputs or outputs configurations, enhancing system power flexibility and load management.

### Enhanced Flexibility

- Versatile for backup power, off-grid and ESS
- Parallel & three-phase up to 9 units, 72kVA
- Built-in a smart port for Gen input or 2nd AC output\*
- AGS function, Power assist & power control
- Compatible with mainstream lithium battery brands and generators

### ESS Capabilities

- Maximize self-consumption
- Lower electricity bills via peak shaving & time-of-use
- Grid feed-in for utility credits

### Superior Reliability

- Transformer-based, high surge power
- 4ms ultra-fast switch to battery power
- ECO Mode to prolong backup time
- Extremely low self-consumption power
- Max inverter efficiency 94%

### Easy O&M

- Auto restart when the AC is recovering
- Local monitoring via E4 LCD Monitor
- Remote monitoring and control via Nova Web & APP

\*Only available for 5kVA/6kVA/8kVA model

Model	RiiO II 2KVA-M	RiiO II 3KVA-M	RiiO II 3KVA-S	RiiO II 4KVA-S	RiiO II 5KVA-S	RiiO II 6KVA-S	RiiO II 8KVA-S
Power Assist	Yes						
AC Input Voltage Range (VAC)	175~265						
AC Input Frequency Range (Hz)	45~65						
AC Input Current (Transfer Switch) (A)	32	32	32	32	50	50	50

### Inverter

Nominal Battery Voltage (V)	24		48				
Input Voltage Range (V)	21-34		42~68				
AC Output Voltage (VAC)	220/230/240 ± 2%						
AC Output Frequency (Hz)	50/60 ± 0.1%						
Harmonic Distortion	<2%						
Cont. Output Power at 25°C (VA)	2000	3000	3000	4000	5000	6000	8000
Max Output Power at 25°C (W)	2000	3000	3000	4000	5000	6000	8000
Peak Power (W)	4000	6000	6000	8000	10000	12000	16000
Surge	300%						
Maximum Efficiency	91%	91%	93%	93%	94%	94%	95%
Zero Load Power (W)	13	17	17	19	22	25	32

### Charger

Charge Voltage 'Absorption' (V)	28.8		57.6				
Charge Voltage 'Float' (V)	27.6		55.2				
Battery Types	AGM / GEL / OPzV / Lead-Carbon / Flooded / Traction / Lithium						
Max AC Charge Current (A)	40	70	35	50	60	70	90
Temperature Compensation	Yes						

### Charger

AC Out1 Current (A)	32	32	32	32	50	50	50
Smart Port Current (A)	N/A				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)	499x272x144			570*310*154		620*320*164	
Net Weight (kg)	13	17	17	19	27	29	32
Cooling	Forced fan						
Protection Index	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						
Grid Regulation	NRS 097						