



RiiO

Inverter Charger RiiO 2KVA-6KVA

RiiO is a new generation inverter charger designed for power shedding application. It integrates multiple functions including a high-performance true sine wave inverter, a powerful battery charger, and a high-speed automatic transfer switch.

RiiO inverter can be used in multiple applications. With a simple setting, you can compose a power backup, or simple solar hybrid system. Its distinguishing surge capability makes it capable to power most of demanding appliances, such as fridge, freeze, water pump and air-conditioner, etc.

With the function of generator power assist, it can be used to work with a limited AC source such as generator or limited grid. RiiO inverter can automatically adjust its charging current to protect the grid or the generator from overload. It can also work as the supplement source to the generator or grid once the temporary peak power appears.

- Generator power assist function enables small generators to handle big loadsLoad boost function for running the heavy duty loads
- Save 45% energy at max under the built-in ECO Mode(30% on average)
- Extremely high inverter efficiency up to 94%
- Harmonic distortion <2%
- Extremely low self-consumption power
- High performance designed for all kinds of inductive loads
- TBB premium II battery charging management
- Built in SOC estimation
- Equalization charging program available for flooded and OPZS battery
- Lithium battery charging available
- Fully programmable by APP
- Remote monitoring and control via Nova online portal



V1.0

Model No.	RiiO 2KVA-M	RiiO 3KVA-M	RiiO 2KVA-S	RiiO 3KVA-S	RiiO 4KVA-S	RiiO 5KVA-S	RiiO 6KVA-S
Product Topology	Transformer based						
Generator Power Assist	Yes						
AC input voltage range (VAC)	175~265						
AC input Frequency range (Hz)	45~65						
AC input Current (transfer switch) (A)	32					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%						
Load Power factor	1.0						
Cont. output power at 25°C (VA)	2000	3000	2000	3000	4000	5000	6000
Max Output power at 25°C (W)	2000	3000	2000	3000	4000	5000	6000
Peak power (3sec) (W)	4000	6000	4000	6000	8000	10000	12000
Surge	300%						
Maximum efficiency	91%	91%	93%	93%	93%	94%	94%
Zero load power (W)	13	17	13	17	19	22	25

Charger

Charge voltage 'absorption' (V)	28.8		57.6				
Charge voltage 'float' (V)	27.6		55.2				
Battery types	AGM/GEL/OPZV/Lead-Carbon/Li-ion/Flooded/Traction/TBB SUPER-L						
Max AC charge current (A)	40	70	20	35	50	60	70
Temperature compensation	Yes						

General Data

Output (AC Out) Current (A)	32	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 with Kinergy)	
Operating temperature range	-20°C to 65°C	
Relative humidity in operation	95% without condensation	
Altitude (m)	2000	

Mechanical Data

Dimension (mm) (max)	499 x 272 x 144					570 x 310 x 154	
Net weight (kg)	14	17	14	17	19	27	29
Cooling	Forced fan						
Protection index	IP21						

Standards

Safety	EN-IEC 62477-1						
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-3-11,EN61000-3-12						