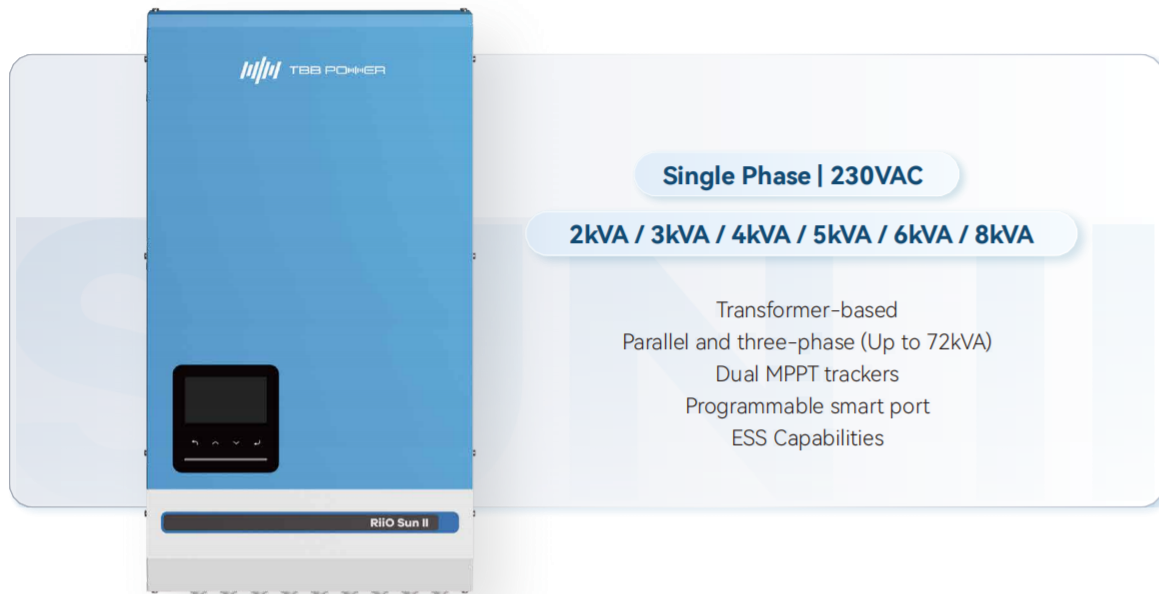


RiiO Sun II

- All-in-one Solar Inverter -



RiiO Sun II is a versatile transformer-based all-in-one solar inverter, designed for backup power, off-grid and ESS applications, integrating a pure sine wave inverter, battery charger, MPPT solar charge controller and a rapid 4ms automatic transfer switch in a compact casing. It's engineered to handle high surge loads and ensures continuous operation of critical load during outages. Additionally, RiiO Sun II enhances energy self-consumption, supports grid feed-in for utility credits, and optimizes costs with peak shaving and time-of-use strategies.

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^{*1}
- 2 MPPT trackers for flexible system design and higher yields^{*2}
- Up to 250V PV open circuit voltage
- Higher PV charging power and current
- AGS function, Power assist & power control
- Compatible with mainstream lithium battery brands and generators
- Optional to work without battery^{*3}

Easy O&M

- All-in-one design for easy installation
- Auto restart when the PV or AC is recovering
- Local monitoring via E4 LCD Monitor
- Remote monitoring and control via Nova Web & APP

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%, max MPPT efficiency 98%

ESS Capabilities

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

*1-2: Only available for 5kVA/6kVA/8kVA model

*3: Only for single-unit application with stable AC bypass supply, PV energy as a supplement for AC bypass

Model	RiiO Sun II 2KVA-M	RiiO Sun II 3KVA-M	RiiO Sun II 3KVA-S	RiiO Sun II 4KVA-S	RiiO Sun II 5KVA-S	RiiO Sun II 6KVA-S	RiiO Sun II 8KVA-S
Power Assist	Yes						
AC input range	175~265 VAC / 45~65 Hz						
AC input Current (transfer switch) (A)	32	32	32	32	50	50	50
Inverter							
Nominal battery voltage / Input voltage (V)	24 / 21-34			48 / 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' / 'float' (V)	28.8 / 27.6			57.6 / 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						
Solar Charge Controller							
Max output current (A)	80	80	60	60	100 (50 per tracker)		
Maximum PV open circuit voltage (V)	150	150	250	250	250	250	250
MPPT voltage range (V)	40~145			65~245			
Number of MPPT trackers	1	1	1	1	2	2	2
Maximum PV input current per tracker (A)	36	36	36	36	36 + 36	36 + 36	36 + 36
Max PV short circuit current per tracker	40A	40A	40A	40A	40 + 40A	40 + 40A	40 + 40A
Maximum charge power	2300W @ 28.8V		3450W @ 57.6V		5760W @ 57.6V total, 2880W @ 57.6V per tracker		
Allowable maximum PV power per tracker	3600W	3600W	5200W	5200W	4400 + 4400W	4400 + 4400W	4400 + 4400W
Charge voltage 'absorption' (V) / 'float' (V)	28.8 / 27.6			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	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)	14	18	18	20	29	31	34
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	RD 1699, NRS 097						