



Description

The Renogy PRO 3000 W Pure Sine Wave Inverter with Transfer Switch converts 12 VDC battery power into clean 230 VAC household-style electricity for RV, van, marine and off-grid cabin systems. Rated at 3000 W continuous with 6000 W of surge headroom, it runs demanding loads such as microwaves, kettles and power tools while its pure sine wave output (THD ≤3%) keeps sensitive electronics safe.

An integrated Automatic Transfer Switch continuously monitors external AC and seamlessly hands loads over to shore power or a generator in MAX. 25 ms, while a built-in RCD and a full suite of electronic protections safeguard the whole AC system. Built-in Bluetooth (Modbus) and an RJ45 CAN port deliver live monitoring from the companion app or a wired system controller.

Key Features

◆ Integrated Transfer Switch

A built-in Automatic Transfer Switch detects valid AC-in (187–264 VAC / 40–70 Hz) and switches loads to shore power or generator in MAX. 25 ms — no manual switching.

◆ Pure Sine Wave Output

Clean 230 VAC ±3% at 50 Hz ±0.3 Hz with THD ≤3%, safe for motors, electronics and sensitive appliances.

◆ Comprehensive Protection

Integrated RCD plus reverse-polarity, over-voltage, under-voltage, overload and over-temperature protection safeguard the inverter and the AC system.

◆ 3000 W / 6000 W Surge

3000 W continuous output with 6000 W peak power handles high-inrush appliances and power tools with confidence.

◆ Bluetooth & CAN Monitoring

Built-in Bluetooth (Modbus) and one RJ45 CAN port provide live status in the companion app and wired system integration.

◆ Efficient & Energy-Saving

Up to 91% peak efficiency with low 15 W no-load loss and an ECO standby mode that draws <10 W when idle.

Applications



RV & Van



Off-grid Cabin



Marine

Designed for 12 V house systems in recreational vehicles, off-grid cabins and boats, delivering mains-style AC power with automatic shore-power switchover.

Technical Specifications

Output & Power

Model	RIV1230PU-23S
Rated Power	3000 W
Peak Power	6000 W
Output Voltage	230 VAC $\pm 3\%$
Output Frequency	50 Hz ± 0.3 Hz
Output Waveform	Pure Sine Wave
Maximum Efficiency	91 %
Total Harmonic Distortion (THD)	≤ 3 %
No-Load Loss	15 W
ECO Standby Power	< 10 W

DC Input

DC Rated Input Voltage	12 VDC
DC Input Voltage Range	10.5 V ~ 16 V

Transfer Switch

Bypass (AC) Input	187–264 VAC / 40–70 Hz
Transfer Time	MAX. 25 ms
Transfer Relay Rating	MAX. 16

Protection

Integrated RCD	Yes
Reverse-Polarity Protection	Yes
Over-Voltage Protection	Yes
Under-Voltage Protection	Yes
Overload Protection	Yes
Over-Temperature Protection	Yes

Communication

Bluetooth (Modbus)	Built-in
CAN Communication	RJ45 (one)

General

Operating Temperature	-20°C ~ 60°C
Dimensions (L × W × H)	455 × 270 × 124 mm

Certification & Warranty

Certification	CE, RoHS, R10, RCM, SAA
Warranty	3 years

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