

6500W ALL-IN-ONE ENERGY STORAGE SYSTEM



Integrated & High-Efficiency Power Solution

All-in-One System: Combines pure sine wave inverter, dual-MPPT solar charger, AC battery charger, and 48V/100Ah lithium battery module.

High Power AC Output: 6,500W continuous, 13,000W surge for motor and inductive loads.

High Solar Charging Capacity: Supports up to 8,000W PV input for maximum energy harvest.

Pure Sine Wave & Efficiency: Stable, grid-quality output (<5% THD); up to 91% inverter efficiency, >95% line-mode efficiency.

Advanced Monitoring & Smart Control

Intuitive Display & Status Indicators: 5 inch color LCD with touch interface and customizable RGB LED ring for real-time monitoring, system settings, and visual energy flow status.

Wi-Fi & Mobile App: Remote monitoring, control, and configuration (iOS & Android).

Flexible Programmable Settings: Adjustable output priority, charging parameters, timers, and operating modes.

Scalable & Flexible System Architecture

Parallel Operation: Up to 3 units for 19.5kW output; supports single-phase, split-phase, and three-phase setups.

Multiple Power Inputs: Works with grid, generator, and solar for true hybrid operation.

Expandable Operation Modes: Utility First, Solar First, SBU, and more—optimized for backup, off-grid, or energy efficiency.

Reliable Protection & Rugged Design

Comprehensive Safety: Overload, short circuit, over-temperature, PV over-voltage/current, and battery voltage protections.

Integrated Lithium BMS with Communication Ports: Built-in BMS ensures safe charging, temperature protection, and communicates with the inverter via RS485, CAN, and RS232 for system integration.

Robust & Modular Design: Thermally controlled fans, removable dust filter, wall-mountable, and reliable operation from 14°F to 104°F.

SPECIFICATIONS

Model	RS-A10
Product Name	6500W ALL-IN-ONE

AC OUTPUT

Rated Output Power	6,500W
Output Waveform	Pure Sine Wave (<5% THD)
Output Voltage	120V ±5%
Output Frequency	50/60Hz (Auto Detection)
Surge Power (5s)	13,000W
Peak Efficiency	Up to 91% (Inverter Mode)
Transfer Time	10ms (UPS) / 20ms (Appliance)

SOLAR CHARGER (MPPT)

Max PV Array Power	8,000W
Max PV Open-Circuit Voltage	250VDC
MPPT Voltage Range	90–230VDC
Max PV Input Current	18A × 2
PV Start-Up Voltage	80VDC ±5V

BATTERY & STORAGE

Nominal Voltage	48VDC
Typical Battery Capacity	100Ah (per module)
Max Charge Current	120A
Max Discharge Current	150A
Charging Algorithm	3-Stage
Parallel Operation	Up to 3 units

PHYSICAL & ENVIRONMENTAL

Operating Temperature	14°F to 104°F
Cooling	Thermally Controlled Fan
Ingress Protection	IP20 (Indoor Use)
Inverter (D × W × H)	8.4 × 24.5 × 19.7 in (55.1 lbs)
Battery (D × W × H)	8.4 × 24.5 × 21.7 in (121.3 lbs)
Certification	UL 458, FCC, CE, RoHS