

DC-DC 20A / 40A / 60A BATTERY CHARGER



Wide Battery Compatibility & Optimized Charging

Supports all 12V battery types: AGM, Flooded, Gel, Sealed, LiFePO₄ (LFP), and Lithium-ion.

Dedicated mode-selection switch enables optimal multi-stage charging (Bulk, Absorption, Float) for your specific battery type, maximizing efficiency and lifespan.

Lithium Activation function automatically recovers over-discharged lithium batteries.

Advanced Safety & System Flexibility

Comprehensive protection: Over-Voltage, Under-Voltage, Over-Temperature, Reverse Polarity, and Short-Circuit.

Red LED fault indicator simplifies troubleshooting.

Isolated Input/Output ensures stable and interference-free auxiliary battery charging.

LC Terminal enables a 50% current-limit mode for older or low-capacity alternators.

Optional temperature sensor provides temperature-compensated charging for lead-acid batteries (not for lithium).

Smart Alternator Integration & Starter Battery Protection

Compatible with conventional and smart alternators.

Operates only when the engine is running via the D+ ignition signal, preventing starter battery drain.

Supports generator starts and safeguards the starter battery during extended charging.

Recommended D+ Wiring: 18-16 AWG copper (cable not included).

Durable, Efficient & User-Friendly

Rugged & Reliable: Metal enclosure designed for RVs, commercial vehicles, marine, and off-grid use.

High Efficiency & Low Idle: >85% @ 14VDC (30% load), <0.75A idle consumption.

Cooling & Ease-of-Use: Integrated fans + clear LED indicators for simple battery selection and start.

SPECIFICATION

BASIC SPECIFICATIONS			
Model	RS-DC20	RS-DC40	RS-DC60
Output Power	250W	500W	750W
Rated Charge Current	20A	40A	60A
Idle Power Consumption	<0.45A	<0.6A	<0.75A
Dimensions (L × W × H)	8.4 × 7.4 × 3.1 in	10.3 × 7.4 × 3.1 in	12.3 × 7.4 × 3.1 in
Net Weight	4.0 lb	4.9 lb	6.2 lb
SYSTEM & PERFORMANCE			
Compatible Battery Types	AGM, Flooded, Gel, Sealed, LiFePO ₄ (LFP), Lithium-ion		
System Voltage	12VDC		
Input Voltage Range	10-16VDC		
Efficiency	>85% (@ 14VDC, 30% Load)		
Charging Profile	2-stage for lithium, 3-stage for lead-acid		
Float Voltage	13.5-13.8V		
Boost Voltage	14.4-14.8V		
Operating Temperature	-4 °F to 122 °F		
Certifications	CE, RoHS		