12.8V 20Ah
LiFePO$_4$ BATTERIES

MODEL: RS-B1220



Safety & Structural Reliability

Grade A+ LiFePO$_4$ cells ensure long-term stability and thermal safety.

Advanced BMS ensures comprehensive multi-level electrical and thermal protection.

UL94 V-0 flame-retardant housing for enhanced durability.

Long Lifespan & Energy Efficiency

Industry-leading 3,000+ cycle life ensures extended service life.

Provides 256Wh of stable usable energy with ≤5% monthly self-discharge.

Maintenance-free LiFePO$_4$ chemistry provides clean, stable, and efficient power output.

All-Weather Operation & Cold Protection

Designed for demanding environments with a wide operating range of −4°F to 140°F.

Supports charging from 32°F to 131°F, with low-temperature charging capability below freezing.

System Expandability & Application

Supports up to 4 units in parallel (4P) for flexible system expansion.

Scalable capacity designed for RVs, marine systems, off-grid cabins, and backup power applications.

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SPECIFICATIONS

BATTERY	
Model	RS-B1220
Nominal Voltage	12.8V
Rated Capacity	20Ah
Nominal Energy	256Wh
Cell Chemistry	$LiFePO_4$
Cycle Life	3,000+
Parallel Expansion	Up to 4 units (4P)
Certifications	UL 1642, CE, UN 38.3
ELECTRICAL PERFORMANCE & CHARGING	
Charging Method	CC/CV
Max Charging Voltage	14.4V
Discharging Cutoff Voltage	10.0V
Recommended Charge Current	10A
Max Charge Current	20A
Max Continuous Discharge Current	30A
ENVIRONMENTAL	
Charge Temperature	32°F to 131°F
Discharge Temperature	-4°F to 140°F
Storage Temperature	32°F to 131°F (<1 Month) / 32°F to 113°F (>3 Months), ≤90% RH
MECHANICAL	
Terminals	M6
Housing Material	UL94 V-0 flame-retardant plastic
Dimensions (L × W × H)	7.1 × 3.1 × 6.5 in
Net Weight	4.6 lbs

BMS CAPABILITIES

Voltage Protection	Over-Charge Protection	YES
	Over-Discharge Protection	YES
Current Protection	Charging Over-Current Protection	YES
	Discharging Over-Current Protection	YES
Circuit Protection	Short-Circuit Protection	YES
Temperature Protection	High/Low Temperature Charging Protection	YES
	High/Low Temperature Discharging Protection	YES
	Internal FET Over-Temperature Protection	YES
Cell Management	Passive Cell Balancing	YES

SPECIFICATIONS INCLUDED IN THIS DATASHEET ARE SUBJECT TO CHANGE WITHOUT NOTICE.