



RB12V50AH

LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	50 Ah
Capacity @ 25A	150 min
Energy	640 Wh
Resistance	≤30 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<2% per Month
Maximum Modules in Parallel	16
Maximum Modules in Series	4 (48 Volts)

DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	50 A
Peak Discharge Current	110 A (0.7 s)
BMS Discharge Current Cut-Off	110 A (10s)
Recommended Low Voltage Disconnect	10.5 V
BMS Discharge Voltage Cut-Off	10 V (2s)
Reconnect Voltage	12 V
Short Circuit Protection	780A @ 400μs

TEMPERATURE SPECIFICATIONS

Discharge Temperature	14 to 167 °F (-10 to 75 °C)
Charge Temperature*	29 to 149 °F (-2 to 65 °C)
Storage Temperature	23 to 95 °F (-5 to 35 °C)
BMS High Temperature Cut-Off	167 °F (75 °C)
Reconnect Temperature	158 °F (70 °C)

*Refer to charge currents below 32°F (0°C)

MECHANICAL SPECIFICATIONS

Dimensions (L x W x H)	8.75" x 5.875" x 7.25" 222 x 149 x 184 mm
Weight	~15 lbs (7 kg)
Terminal Type	M6
Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)
Case Material	ABS
Enclosure Protection	IP55
Cell Type - Chemistry	Prismatic - LiFePO ₄

CHARGE SPECIFICATIONS

Recommended Charge Current	1 A - 50 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.2 - 14.6 V
Bulk / Absorb Voltage	14.2 - 14.6 V
Float Voltage	13.4 - 13.7 V

COMPLIANCE SPECIFICATIONS

Certifications	CE (battery) UN38.3 (battery) UL1642 & IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9





PERFORMANCE CHARACTERISTICS

