



RB50-HP

Voltage: 12.8V | Capacity: 50 Ah | Energy: 640 Wh | Group: 24

LITHIUM IRON PHOSPHATE BATTERY **LiFePO₄**

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	50 Ah
Capacity @ 25A	120 min
Resistance	≤50 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	1 (Single Use)

DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	50 A
Peak Discharge Current	400 A (≤3 s)
BMS Discharge Current Cut-Off	550 A ±60 A (42 ±22 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 vpc) (100 ±50 ms)
Reconnect Voltage	10 V (2.5 ±0.1 vpc)
Short Circuit Protection	200-800 μs

TEMPERATURE SPECIFICATIONS

Discharge Temperature	-4 to 140 °F (-20 to 60 °C)
Charge Temperature*	-4 to 113 °F (-20 to 45 °C)
Storage Temperature	23 to 95 °F (-5 to 35 °C)
BMS High Temperature Cut-Off	185 °F ±5 °F (85 °C ±5 °C)
Reconnect Temperature	140 °F ±59 °F (60 °C ±15 °C)
Storage Temperature	23 to 95 °F (-5 to 35 °C)

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

MECHANICAL SPECIFICATIONS

Dimensions (L x W x H)	10.2 x 6.6 x 8.6" 260 x 168 x 218 mm
Weight	18.7 lbs (8.5 kg)
Terminal Type	M8 x 1.25 x 12mm
Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)
Case Material	ABS
Enclosure Protection	IP66
Cell Type - Chemistry	Cylindrical - LiFePO ₄

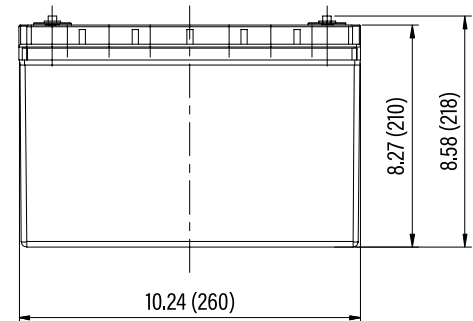
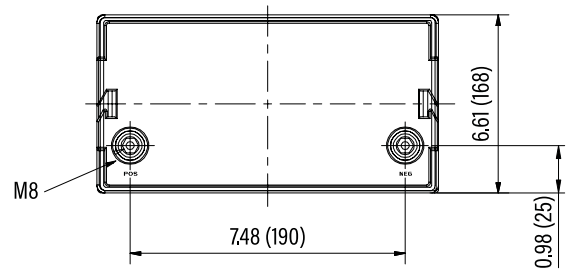
CHARGE SPECIFICATIONS

Recommended Charge Current	2.5 A - 25 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.2 V - 14.6 V
Charge Current 32° to 14°F (0 to -10 °C)	≤0.1 C
Charge Current -4° to 14°F (-20 to -10 °C)	≤0.05 C
BMS Charge Voltage Cut-Off	15.2 V (3.8 ±0.05 vpc) (1.0 ±0.5 s)
Reconnect Voltage	14.4 V (3.6 ±0.05 vpc)
Balancing Voltage	14.4 V (3.6 ±0.025 vpc)

COMPLIANCE SPECIFICATIONS

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

DIMENSIONAL SPECIFICATIONS





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PERFORMANCE CHARACTERISTICS

