



# RB48V25

Voltage: 51.2V | Capacity: 25 Ah | Energy: 1280 Wh | Group: 24

LITHIUM IRON PHOSPHATE BATTERY **LiFePO4**

## ELECTRICAL SPECIFICATIONS

Nominal Voltage	51.2 V
Nominal Capacity	25 Ah
Resistance	≤70 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Batteries Connected in Series	1 (Single Use)

## DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	20 A
Peak Discharge Current	25 A (4 ±1 s)
Discharge Over-Current Protection	60 A ±10 A (6 ±3 ms)
Recommended Low Voltage Disconnect	44.0 V
Discharge Under-Voltage Protection	40.0 V (2.5 ±0.1 vpc) (100 ±50 ms)
Reconnect Voltage	32.0 V (2.0 ±0.1 vpc)
Short Circuit Protection Response Time	400-600 μs

## TEMPERATURE SPECIFICATIONS

Discharge Temperature	-4 to 140° F (-20 to 60° C)
Charge Temperature*	-4 to 113° F (-20 to 45° C)
Recommended Storage Temperature	23 to 95° F (-5 to 35° C)
BMS High Temperature Cut-Off	149° F (65° C)
Reconnect Temperature	122° F (50° C)

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

## MECHANICAL SPECIFICATIONS

Dimensions (L x W x H)	10.2 x 6.7 x 8.4" 260 x 172 x 213.1 mm
Weight	27.6 lbs (12.5 kg)
Terminal Type	M8 x 1.25
Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)
Case Material	ABS & Polycarbonate blend (UL94-V0 flame rating)
Enclosure Protection (Waterproof Rating)	IP67
Cell Type - Chemistry	Cylindrical - LiFePO4

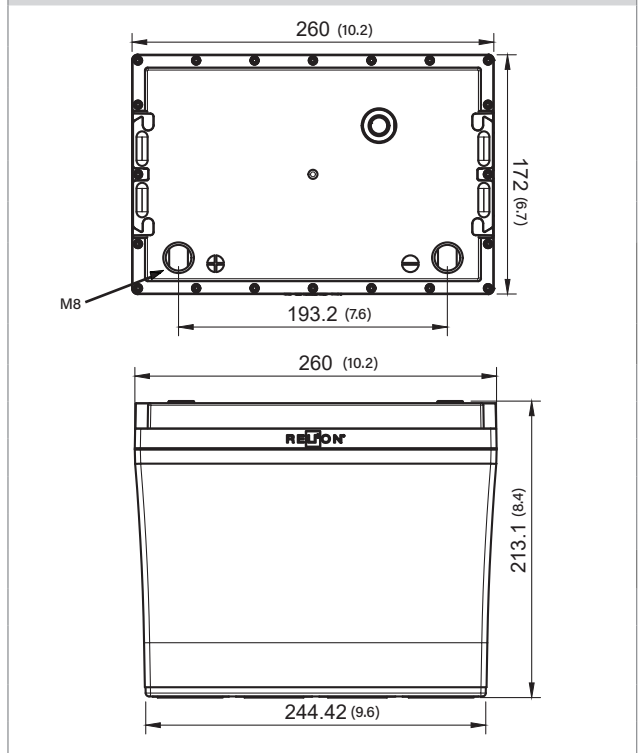
## CHARGE SPECIFICATIONS

Recommended Charge Current	1.25 A - 12.5 A
Recommended Maximum Charge Current	20 A
Charge Current 14 to 32°F (-10 to 0°C)	≤0.1 C (2 A)
Charge Current -4 to 14°F (-20 to -10°C)	≤0.05 C (1 A)
Recommended Charge Voltage	56.0 V - 58.4 V
BMS Charge Voltage Cut-Off	60.8 V (3.8 ±0.05 vpc) (1.0 ±0.5 s)
Reconnect Voltage	57.6 V (3.6 ±0.05 vpc)
Balancing Voltage	57.6 V (3.6 ±0.025 vpc)

## COMPLIANCE SPECIFICATIONS

Certifications	UN38.3, UKCA & CE (battery) UL1642 (cells) (File# MH62098) IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9

## DIMENSIONAL SPECIFICATIONS





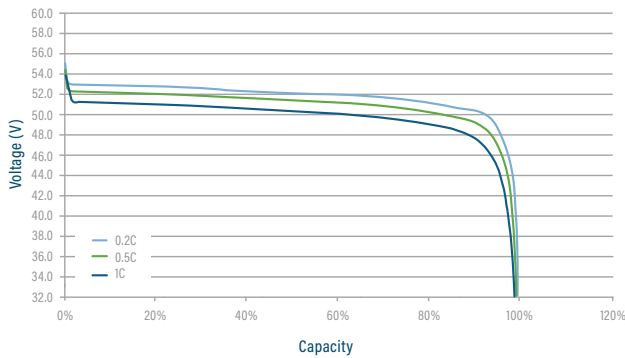
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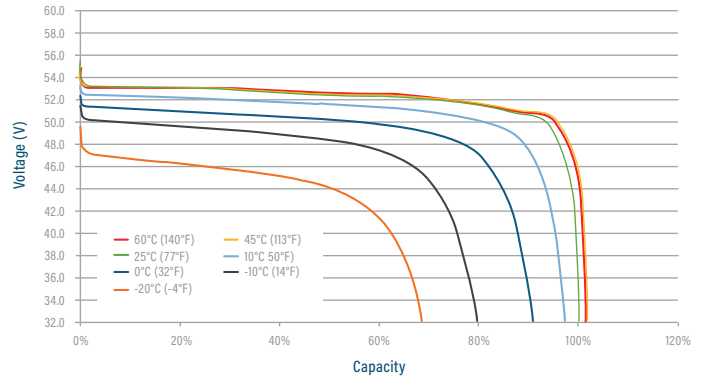
LITHIUM IRON PHOSPHATE BATTERY **LiFePO4**

## TYPICAL LITHIUM IRON PHOSPHATE CHARACTERISTICS\*

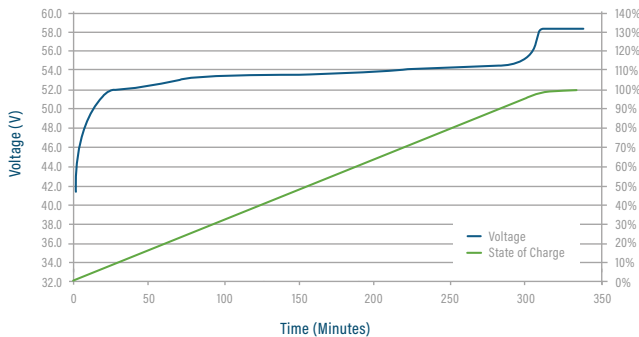
DISCHARGE VOLTAGE CHARACTERISTICS AT VARIOUS RATES  
25°C (77°F)



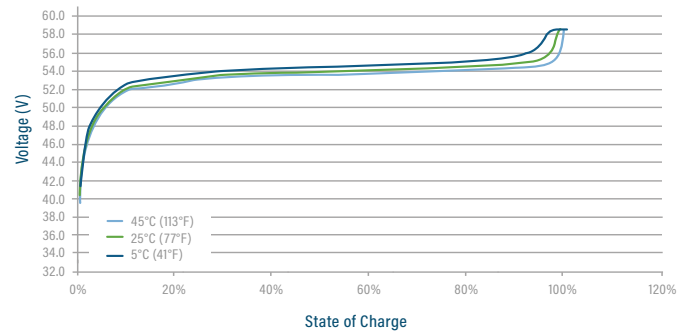
DISCHARGE VOLTAGE CHARACTERISTICS AT VARIOUS TEMPERATURES  
DISCHARGE 1C



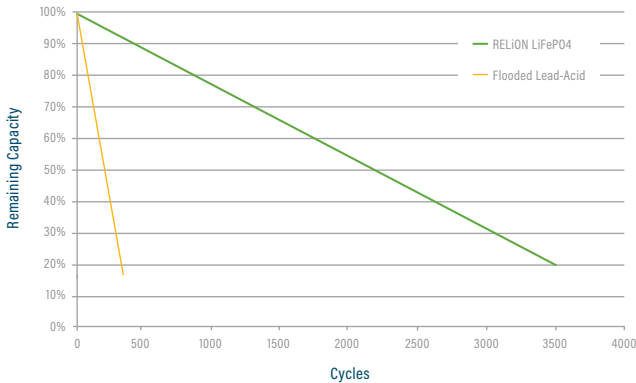
CHARGE VOLTAGE AND STATE OF CHARGE (SOC)  
CHARGE 0.2C @ 25°C (77°F)



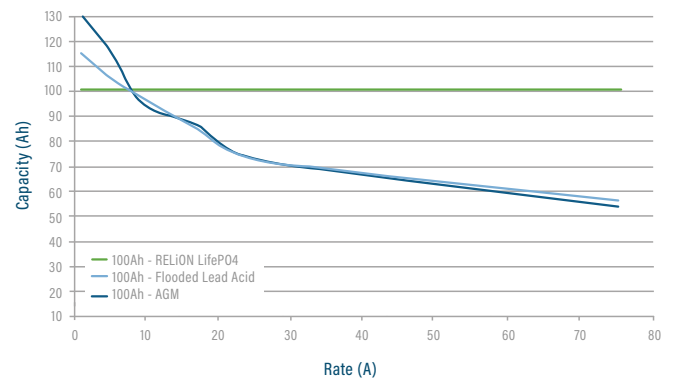
CHARGE VOLTAGE CHARACTERISTICS AT VARIOUS RATES  
CHARGE 0.2C



CYCLE LIFE VS. DEPTH OF DISCHARGE (DOD) AT 80%  
DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F)



CAPACITY OF RELiON LiFePO4 vs. LEAD ACID  
at VARIOUS RATES OF DISCHARGE



\*Performance between applications and batteries may vary. All results should be independently verified by customer.

