



# RB48V300

Voltage: 51.2V | Capacity: 300 Ah | Energy: 15.36 kWh

LITHIUM IRON PHOSPHATE BATTERY **LiFePO4**

## ELECTRICAL SPECIFICATIONS

Nominal Voltage	51.2 V
Nominal Capacity	300 Ah
Capacity @ 25 A	720 min
Resistance	6 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Batteries Connected in Series	1 (Single Use)

## DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	200 A
Peak Discharge Current	250 A (4 s ±1 s)
Discharge Over-Current Protection	390 A (5 s)
Recommended Low Voltage Disconnect	44.0 V
Discharge Under-Voltage Protection	40.0 V (2.5 ±0.1 vpc)
Reconnect Voltage	40.5 V (2.53 ±0.1 vpc)
BMS SOC Disconnect	5%

## TEMPERATURE SPECIFICATIONS

Discharge Temperature	-4 to 131 °F (-20 to 55 °C)
Charge Temperature*	-4 to 131 °F (-20 to 55 °C)
Recommended Storage Temperature	23 to 95 °F (-5 to 35 °C)
BMS High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	145 °F (63 °C)
BMS Low Temperature Disconnect	-4 °F (-20 °C)
Reconnect Temperature	-0.4 °F (-18 °C)

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

## MECHANICAL SPECIFICATIONS

Dimensions (L x W x H)	29.1 x 19.6 x 15.7" 740 x 497 x 398 mm
Weight	388 lbs (176 kg)
Terminal Type	M10 x 1.5
Terminal Torque	110 - 125 in-lbs (12.2 - 14 N-m)
Case Material	Steel Case
Enclosure Protection	IP65
Cell Type - Chemistry	Cylindrical - LiFePO <sub>4</sub>

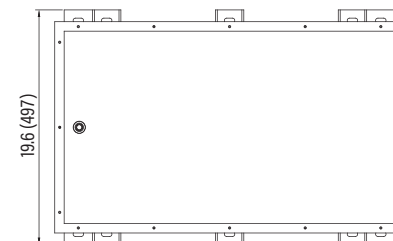
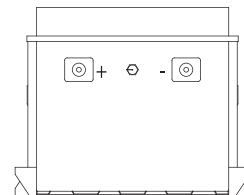
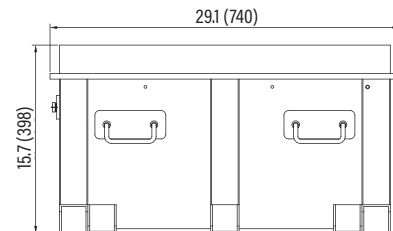
## CHARGE SPECIFICATIONS

Recommended Charge Current	≤100 A
Recommended Maximum Continuous Charge Current	200 A
BMS Charge Current Disconnect	300 A
Charge Current 14 to 32 °F (-10 to 0 °C)	≤0.1 C (20 A)
Charge Current -4 to 14 °F (-20 to -10 °C)	≤0.05 C (10 A)
Recommended Charge Voltage	56.0 V - 58.4 V
BMS Charge Voltage Disconnect	60.8 V (3.9 vpc)
Reconnect Voltage	60.3 V (3.87 vpc)

## COMPLIANCE SPECIFICATIONS

Certifications	UN38.3, UKCA & CE (battery) UL1642 (cells) (File# MH64523) IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9

## DIMENSIONAL SPECIFICATIONS





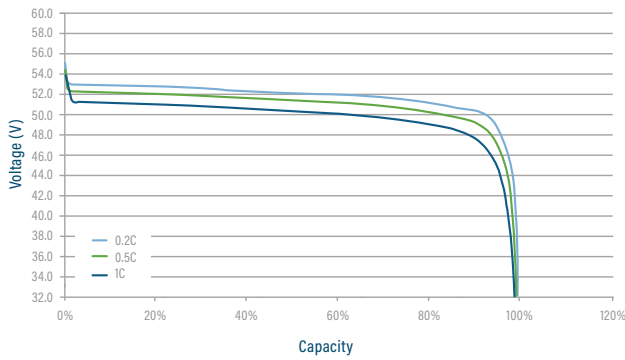
# RB48V300

Voltage: 51.2V | Capacity: 300 Ah | Energy: 15.36 kWh

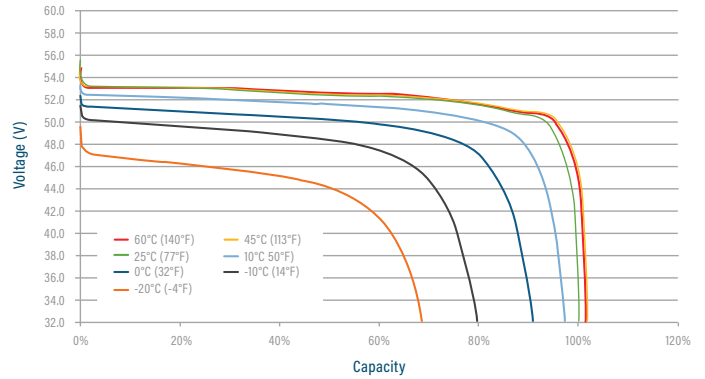
LITHIUM IRON PHOSPHATE BATTERY **LiFePO4**

## TYPICAL LITHIUM IRON PHOSPHATE CHARACTERISTICS\*

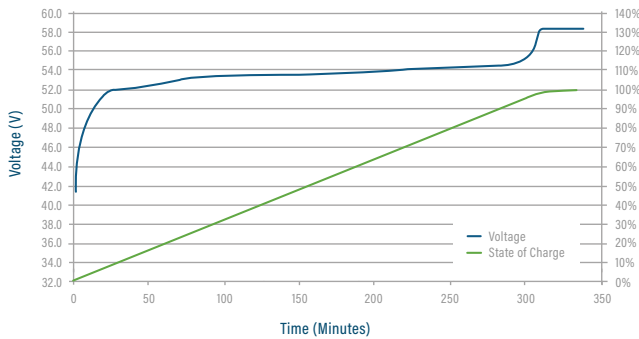
DISCHARGE VOLTAGE CHARACTERISTICS AT VARIOUS RATES  
25°C (77°F)



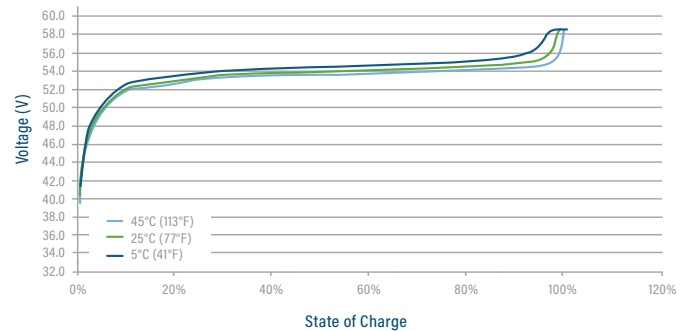
DISCHARGE VOLTAGE CHARACTERISTICS AT VARIOUS TEMPERATURES  
DISCHARGE 1C



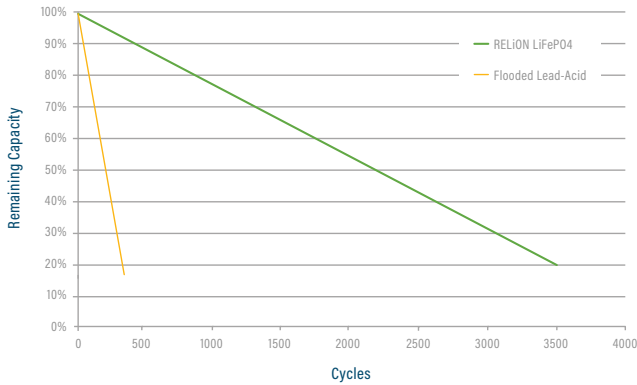
CHARGE VOLTAGE AND STATE OF CHARGE (SOC)  
CHARGE 0.2C @ 25°C (77°F)



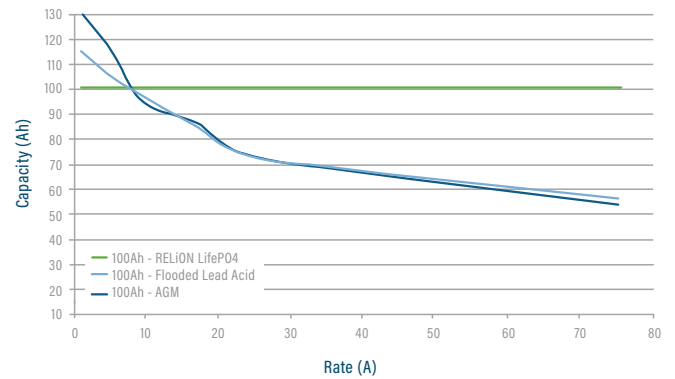
CHARGE VOLTAGE CHARACTERISTICS AT VARIOUS RATES  
CHARGE 0.2C



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.

