



# RB48V300

IEEE/UL Battery  
Sizing by  
**MooreU**  
610-952-6067  
www.mooreu.com

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 @ 25A	720 min
Resistance	6 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	1 (Single Use)

## DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	200 A
Peak Discharge Current	250 A (4 s ±1 s)
BMS Discharge Current Cut-Off	390 A (5 s)
Recommended Low Voltage Disconnect	44 V
BMS Discharge Voltage Cut-Off	40 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)
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>

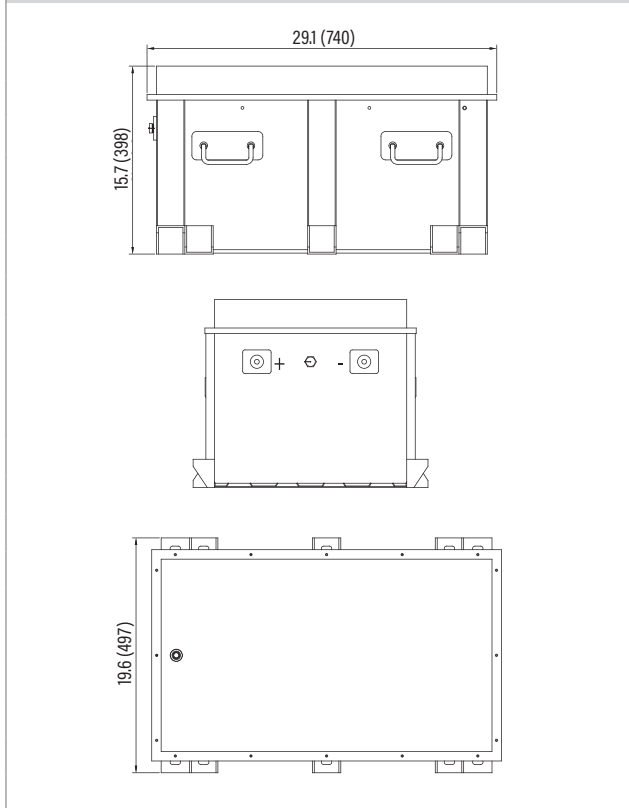
## CHARGE SPECIFICATIONS

Recommended Charge Current	≤100 A
Recommended Maximum Charge Current	200 A
BMS Charge Current Disconnect	300 A
Charge Current 14 to 32 °F (-10 to 0 °C)	≤0.1 C
Charge Current -4 to 14 °F (-20 to -10 °C)	≤0.05 C
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 & CE (battery) UL1642 (cells) (File# MH64523) IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9

## DIMENSIONAL SPECIFICATIONS





# RB48V300

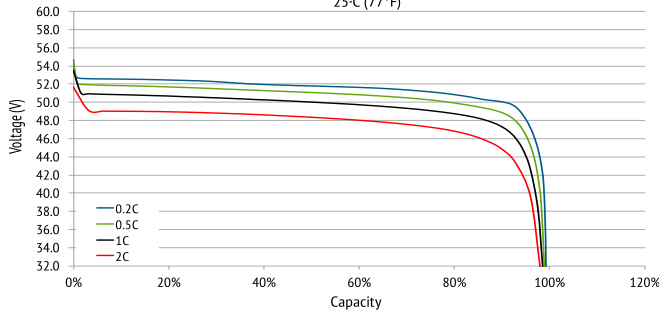
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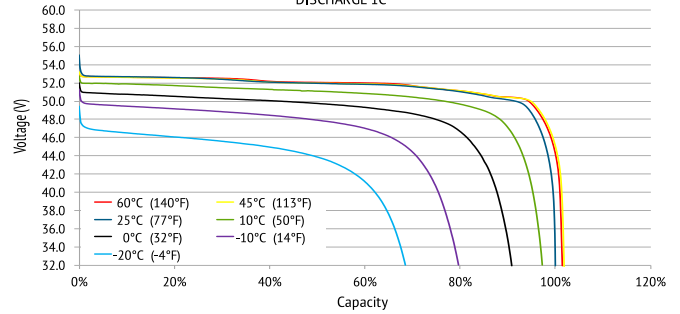
LITHIUM IRON PHOSPHATE BATTERY **LiFePO4**

## PERFORMANCE CHARACTERISTICS

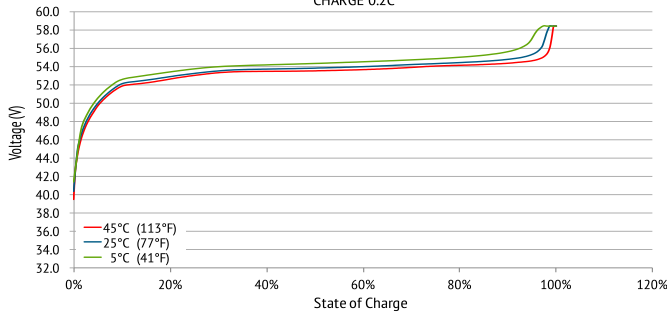
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS RATES  
25°C (77°F)



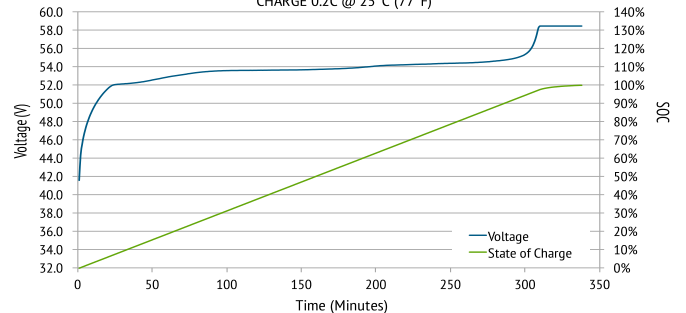
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
DISCHARGE 1C



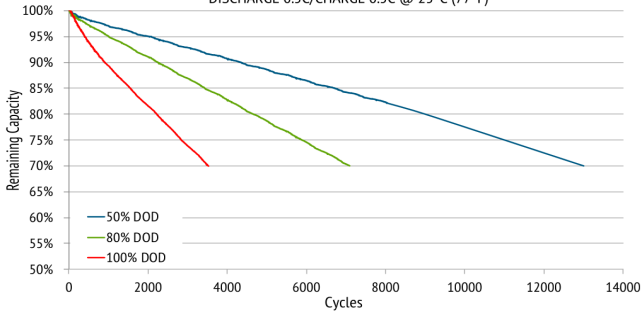
CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
CHARGE 0.2C



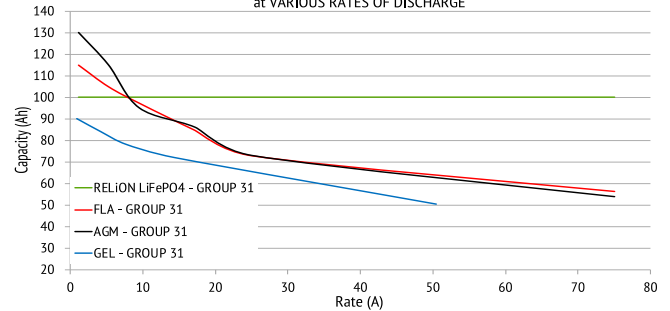
CHARGE VOLTAGE and STATE OF CHARGE (SOC)  
CHARGE 0.2C @ 25°C (77°F)



CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD)  
DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F)



CAPACITY of RELION LiFePO4 vs. LEAD ACID  
at VARIOUS RATES OF DISCHARGE



UN38.3

