



# RB24V20

Voltage: 25.6V | Capacity: 20 Ah | Energy: 512 Wh | Group: U1

LITHIUM IRON PHOSPHATE BATTERY **LiFePO<sub>4</sub>**

## ELECTRICAL SPECIFICATIONS

Nominal Voltage	25.6 V
Nominal Capacity	20 Ah
Capacity @ 25A	48 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	30 A
Peak Discharge Current	60 A (7.5 s ±2.5 s)
BMS Discharge Current Cut-Off	170 A ±20 A (10 ±5 ms)
Recommended Low Voltage Disconnect	22 V
BMS Discharge Voltage Cut-Off	16 V (2.0 ±0.08 vpc) (20 ±6 ms)
Reconnect Voltage	20 V (2.5 ±0.05 vpc)
Short Circuit Protection	200-600 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	176 °F (80 °C)
Reconnect Temperature	122 °F (50 °C)

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

## MECHANICAL SPECIFICATIONS

Dimensions (L x W x H)	7.7 x 5.2 x 6.7" 195 x 131 x 171 mm
Weight	11.9 lbs (5.4 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 <sub>4</sub>

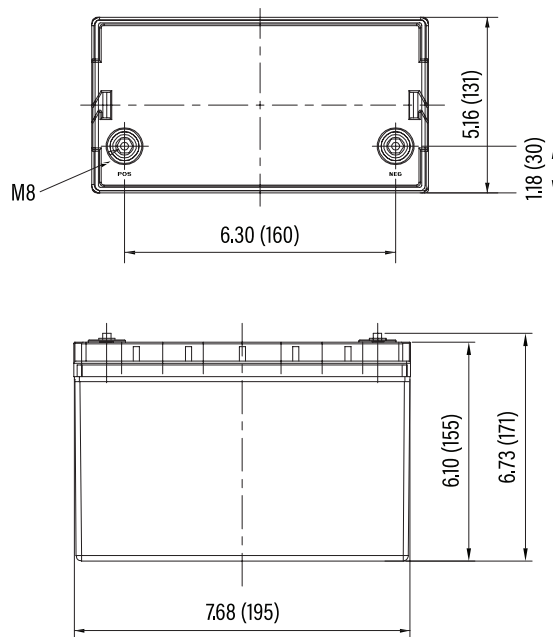
## CHARGE SPECIFICATIONS

Recommended Charge Current	1 A - 10 A
Maximum Charge Current	30 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	28.4 V - 29.2 V
BMS Charge Voltage Cut-Off	31.2 V (3.9 ±0.025 vpc) (1 ±0.3 s)
Reconnect Voltage	30.4 V (3.8 ±0.05 vpc)
Balancing Voltage	28.8 V (3.6 ±0.025 vpc)

## COMPLIANCE SPECIFICATIONS

Certifications	UN38.3 & CE (battery) UL1642 (cells) (File# MH64523) IEC62133 (cells) IEC62133-2 (battery)
Shipping Classification	UN 3480, CLASS 9

## DIMENSIONAL SPECIFICATIONS





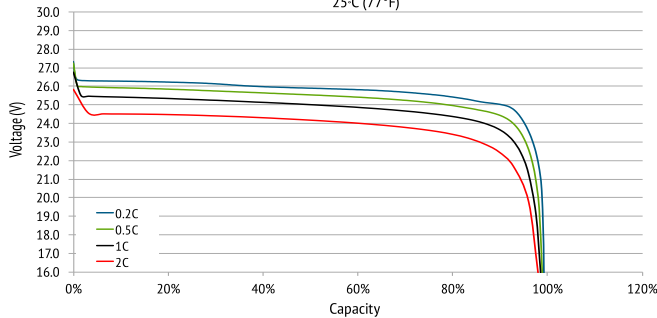
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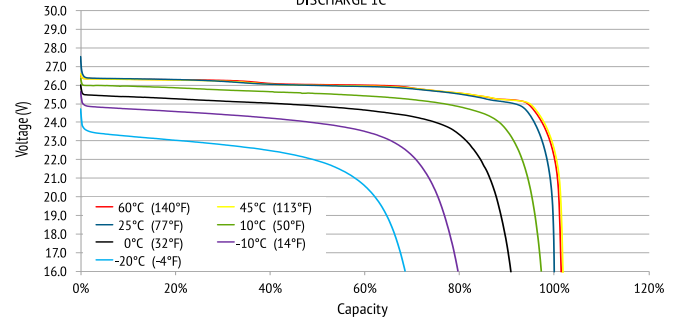
LITHIUM IRON PHOSPHATE BATTERY **LiFePO4**

## PERFORMANCE CHARACTERISTICS

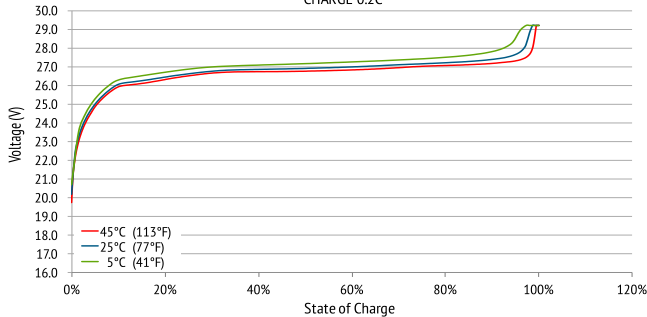
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS RATES  
25°C (77°F)



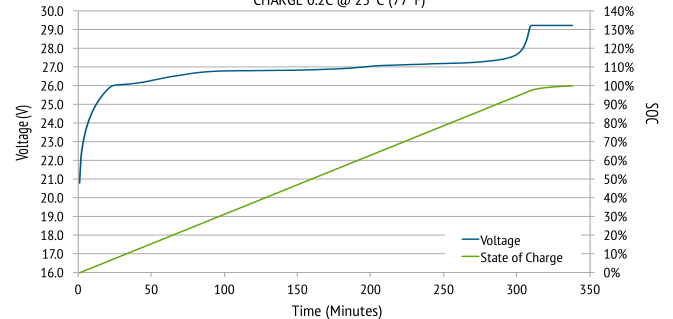
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
DISCHARGE 1C



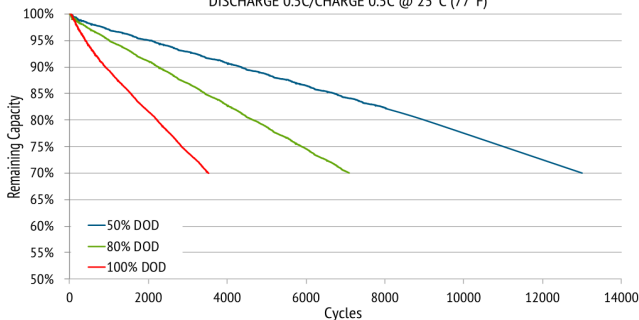
CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
CHARGE 0.2C



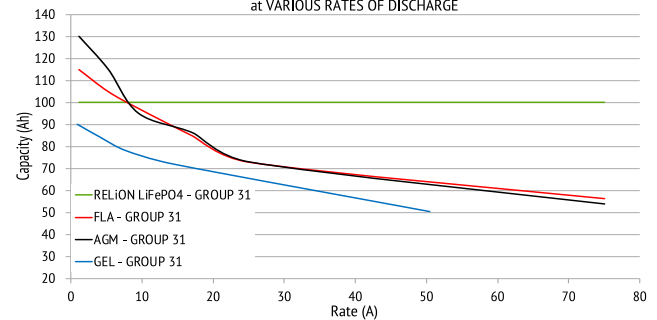
CHARGE VOLTAGE and STATE OF CHARGE (SOC)  
CHARGE 0.2C @ 25°C (77°F)



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

UK  
CA

CE



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