

## RB5

# LITHIUM IRON PHOSPHATE BATTERY

### ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	5 Ah
Capacity @ 25A	12 min
Energy	64 Wh
Resistance	≤130 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	1

### DISCHARGE SPECIFICATIONS

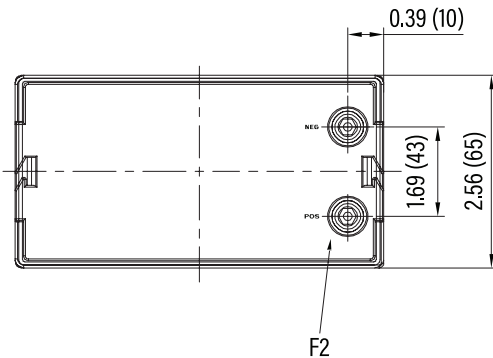
Maximum Continuous Discharge Current	5 A
Peak Discharge Current	10 A (7.5 s ±2.5 s)
BMS Discharge Current Cut-Off	15 A ±3 A (10 ±5 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 vpc) (100 ±50 ms)
Reconnect Voltage	10 V (2.5 ±0.1 vpc)
Short Circuit Protection	200-500 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)

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

### DIMENSIONAL SPECIFICATIONS



### MECHANICAL SPECIFICATIONS

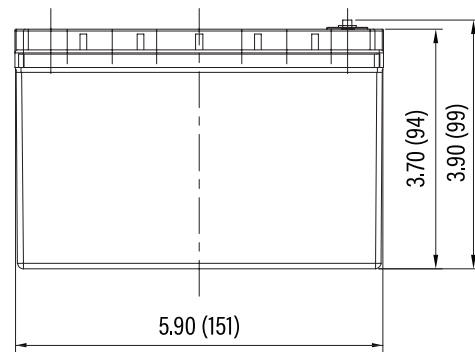
Dimensions (L x W x H)	5.9 x 2.6 x 3.9"
	151 x 65 x 99 mm
Weight	2.0 lbs (0.9 kg)
Terminal Type	F2
Case Material	ABS
Enclosure Protection	IP56
Cell Type	Cylindrical
Chemistry	LiFePO <sub>4</sub>

### CHARGE SPECIFICATIONS

Recommended Charge Current	0.25 A - 2.5 A
Maximum Charge Current	5 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	14.2 V - 14.6 V
BMS Charge Voltage Cut-Off	15.6 V (3.9 ±0.025 vpc) (1.0 ±0.5 s)
Reconnect Voltage	15.2 V (3.8 ±0.05 vpc)

### COMPLIANCE SPECIFICATIONS

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

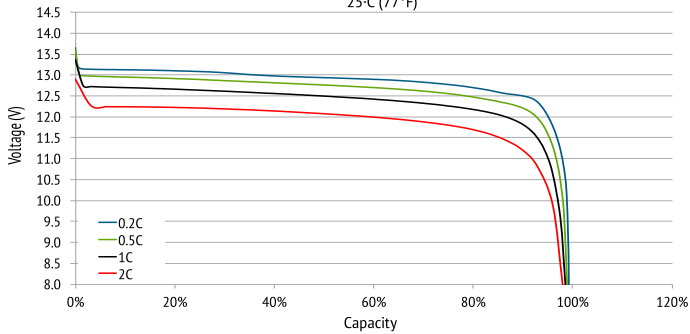




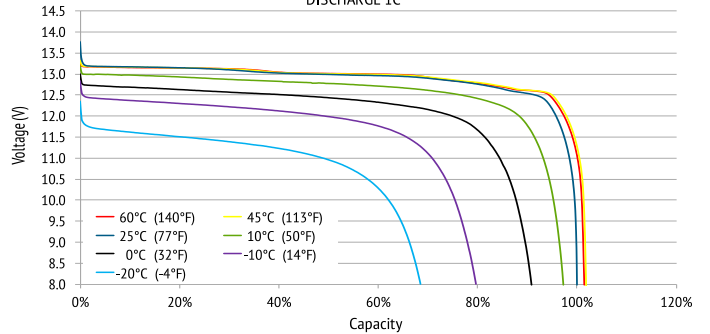
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### PERFORMANCE CHARACTERISTICS

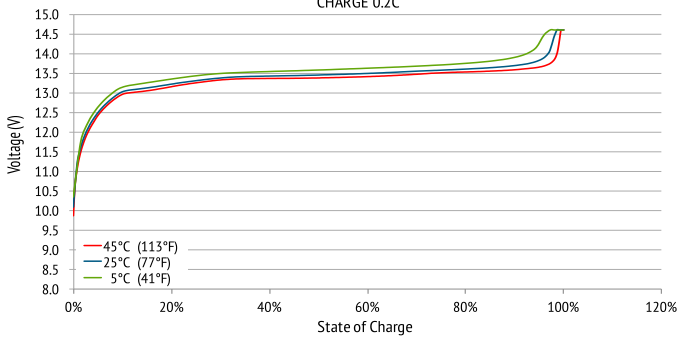
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS RATES  
25°C (77°F)



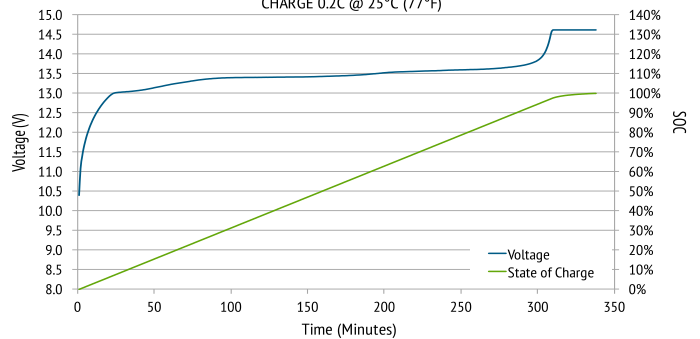
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
DISCHARGE 1C



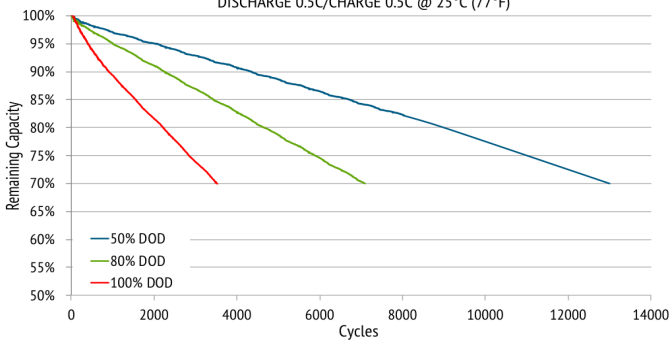
CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
CHARGE 0.2C



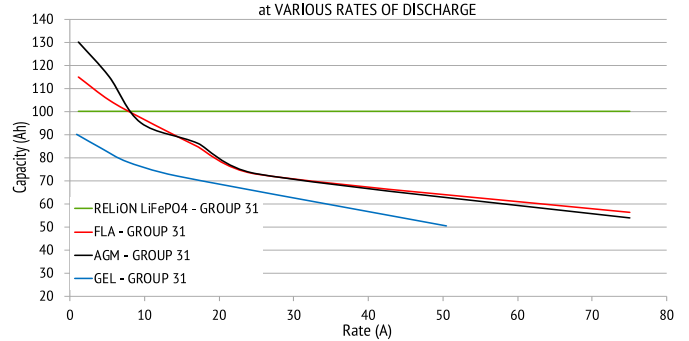
CHARGE VOLTAGE and STATE OF CHARGE (SOC)  
CHARGE 0.2C @ 25°C (77°F)



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

CE



RB5D S09-20-2019

