

RB100-D



LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	100 Ah
Capacity @ 25A	240 min
Energy	1280 Wh
Resistance	≤30 mΩ @ 50% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	4

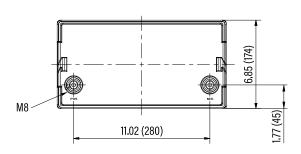
DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	100 A
Peak Discharge Current	200 A (7.5 s ±2.5 s)
BMS Discharge Current Cut-Off	280 A ±50 A (9 ±4 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 vpc) (140 ±60 ms)
Reconnect Voltage	9.2 V (2.3 ±0.1 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)	

DIMENSIONAL SPECIFICATIONS



MECHANICAL SPECIFICATIONSDimensions (L x W x H)13.2 x 6.9 x 7.5"
335 x 174 x 191 mmWeight30.2 lbs (13.7 kg)Terminal TypeM8Terminal Torque80 - 100 in-lbs (9 - 11 N-m)Case MaterialABS

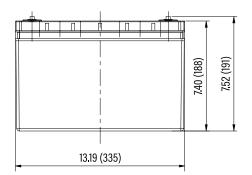
Case Material	ABS
Enclosure Protection	IP56
Cell Type - Chemistry	Cylindrical - LiFePO4

CHARGE SPECIFICATIONS

Recommended Charge Current	5 A - 50 A
Maximum Charge Current	100 A
Charge Current 14 to 32 $^{\circ}$ F (-10 to 0 $^{\circ}$ 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) (1.1 ±0.4 s)
Reconnect Voltage	15.2 V (3.8 ±0.05 vpc)
Balancing Voltage	14.4 V (3.6 ±0.025 vpc)

COMPLIANCE SPECIFICATIONS

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



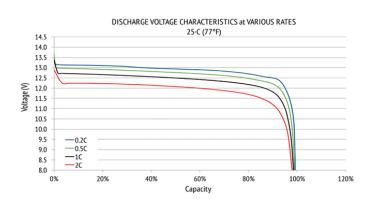
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PERFORMANCE CHARACTERISTICS



CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES

CHARGE 0.2C

60%

State of Charge

CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD)

DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F)

80%

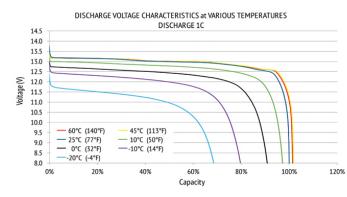
10000

12000

14000

100%

120%



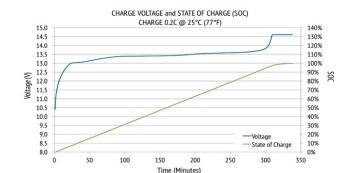
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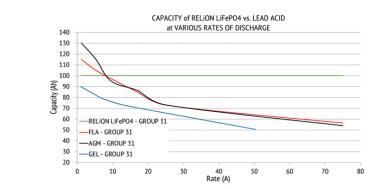
RELION

12.8V 100Ah

ce 👜 🖉

UN38.3







15.0

14.5 14.0 13.5

13.0 12.5

12.0 11.5

11.0 10.5

10.0 9.5 9.0 8.5

8.0

0%

100%

95%

90%

85%

80% 75% 70%

65%

60%

55%

50%

0

Remaining Capacity

45°C (113°F) 25°C (77°F) 5°C (41°F)

20%

-100% DOD

2000

4000

6000

Cycles

Canada: 1-888-271-8888

8000

40%

Voltage (V)

United States: 1-844-370-0258

Panama: +507-292-4776

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