

RB100-HP



Group: 31

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	1 (Single Use)

DISCHARGE SPECIFICATIONS

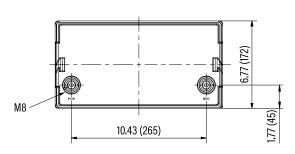
Maximum Continuous Discharge Current	100 A
Peak Discharge Current	800 A (2 s)
BMS Discharge Current Cut-Off	1000 A ±100 A (2.2 ±1 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	9.2 V (2.3 ±0.08 vpc) (4.2 ±0.5 s)
Reconnect Voltage	10 V (2.5 ±0.1 vpc)
Short Circuit Protection	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 SPECIFICATIONS

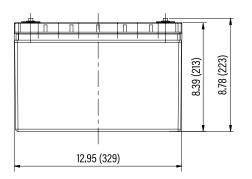
Dimensions (L x W x H)	13.0 x 6.8 x 8.8" 329 x 172 x 223 mm
Weight	30 lbs (13.5 kg)
Terminal Type	M8
Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)
Case Material	ABS
Enclosure Protection	IP56
Cell Type - Chemistry	Cylindrical - LiFePO ₄

CHARGE SPECIFICATIONS

Recommended Charge Current	5 A - 50 A
Maximum Charge Current	100 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	15.4 V (3.85 ±0.025 vpc) (1 ±0.2 s)
Reconnect Voltage	14.6 V (3.65 ±0.05 vpc)
Balancing Voltage	14.4 V (3.6 ±0.025 vpc)

COMPLIANCE SPECIFICATIONS

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



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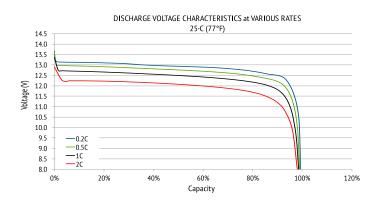
+1.803.547.7288 844.385.9840 1433 Dave Lyle Blvd Rock Hill, SC 29730, US

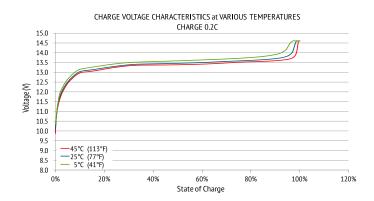


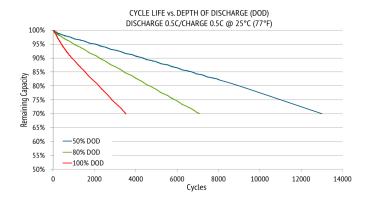


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PERFORMANCE CHARACTERISTICS

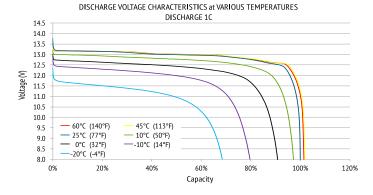




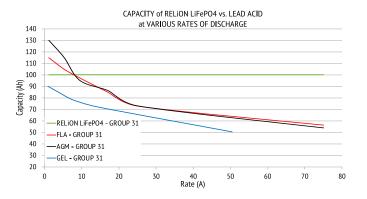


12.8V 100Ah RB100-HP ay Life? RELiON ce 👜 🚊

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CHARGE VOLTAGE and STATE OF CHARGE (SOC) CHARGE 0.2C @ 25°C (77°F) 15.0 140% 14.5 130% 120% 14.0 13.5 110% 13.0 100% 12.5 90% Voltage (V) SO 80% 12.0 11.5 11.0 70% 60% 10.5 50% 10.0 40% 9.5 30% 9.0 20% 8.5 10% 8.0 0% 0 50 100 150 200 250 300 350 Time (Minutes)



CE

RB100HPDS09.20.2019

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