

RB300

LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V
Nominal Capacity	300 Ah
Capacity @ 25A	720 min
Energy	3840 Wh
Resistance	≤30 mΩ @ 50% S0C
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	6

DISCHARGE SPECIFICATIONS

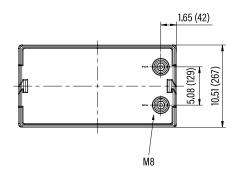
Maximum Continuous Discharge Current	100 A
Peak Discharge Current	200 A (7.5 s ±2.5 s)
BMS Discharge Current Cut-Off	280 A ±50 A (9 ±4 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	8 V (2.0 ±0.08 vpc) (140 ±60 ms)
Reconnect Voltage	9.2 V (2.3 ±0.1 vpc)
Short Circuit Protection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

*Relef to charge currents below 32 F (U C)

DIMENSIONAL SPECIFICATIONS



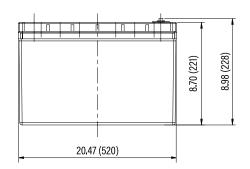
MECHANICAL SPECIFICATIONS	
Dimensions (L x W x H)	20.5 x 10.5 x 9.0" 520 x 267 x 228 mm
Weight	82.7 lbs (37.5 kg)
Terminal Type	M8
Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)
Case Material	ABS
Enclosure Protection	IP56
Cell Type - Chemistry	Cylindrical - LiFePO ₄

CHARGE SPECIFICATIONS

Recommended Charge Current	15 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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RB300

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%

65%

60%

55%

50%

0

45°C (113°F) -25°C (77°F) - 5°C (41°F)

20%

-50% DOD

-100% DOD

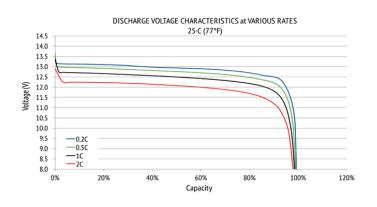
2000

4000

40%

Voltage (V)

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)

6000 Cycles

Canada: 1-888-271-8888

8000

10000

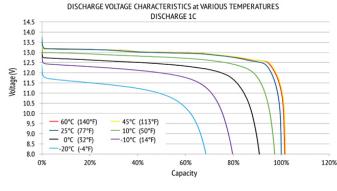
12000

14000

80%

100%

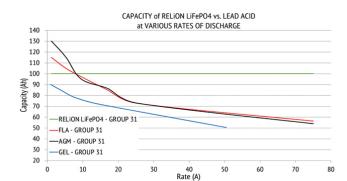
120%



RECON

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

Time (Minutes)





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