

RB300-HP

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% SOC
Efficiency	99%
Self Discharge	<3% per Month
Maximum Modules in Series	1 (Single Use)

DISCHARGE SPECIFICATIONS

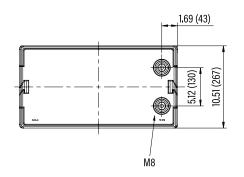
Maximum Continuous Discharge Current	100 A
Peak Discharge Current	800 A (2 s)
BMS Discharge Current Cut-Off	1000 A ±100 A (2.2 ±1 ms)
Recommended Low Voltage Disconnect	11 V
BMS Discharge Voltage Cut-Off	9.2 V (2.3 ±0.08 vpc) (4.2 ±0.5 s)
Reconnect Voltage	10 V (2.5 ±0.1 vpc)
Short Circuit Protection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

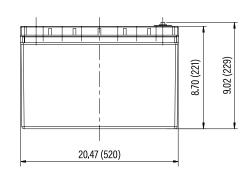
Dimensions (L x W x H)	20.5 x 10.5 x 9.0" 520 x 267 x 228 mm
Weight	82.7 lbs (37.5 kg)
Terminal Type	M8
Terminal Torque	80 - 100 in-lbs (9 - 11 N-m)
Case Material	ABS
Enclosure Protection	IP56
Cell Type - Chemistry	Cylindrical - LiFePO4

CHARGE SPECIFICATIONS

Recommended Charge Current	15 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

3 (cells)



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RB300-HP

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%

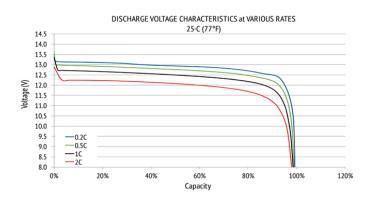
−45°C (113°F) −25°C (77°F) − 5°C (41°F)

20%

40%

Voltage (V)

PERFORMANCE CHARACTERISTICS



CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES

CHARGE 0.2C

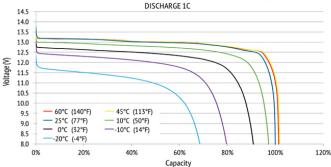
60%

State of Charge

80%

100%

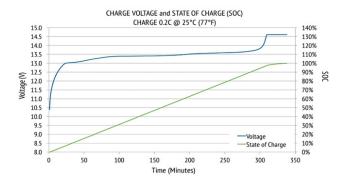
120%

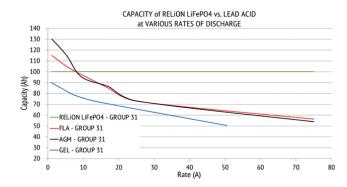


DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES

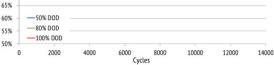
Group: 8D

RELPON





CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD) DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F) 100% 95% 90% 85% naining Capacity 80% 75% 70% Ren 65% 60% 55%



UN38.3 CE 212 12

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