



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

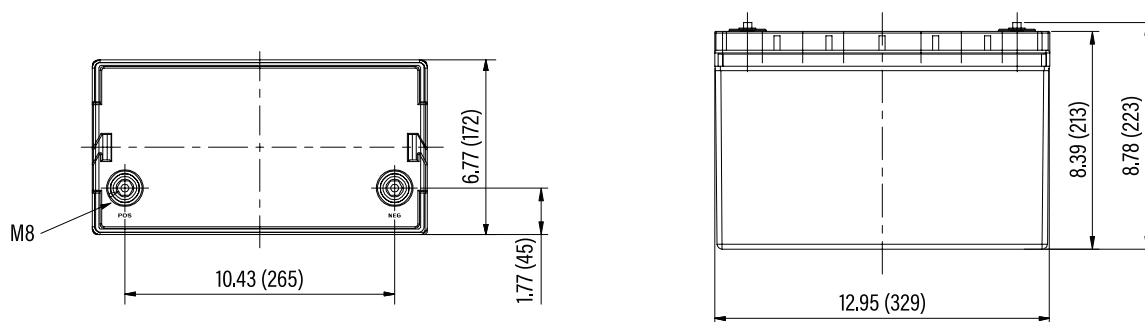
| | |
|--------------------------------------|------------------------------------|
| Maximum Continuous Discharge Current | 100 A |
| Peak Discharge Current | 800 A (2 s) |
| BMS Discharge Current Cut-Off | 1000 A ±100 A (2.2 ±1 ms) |
| Recommended Low Voltage Disconnect | 11 V |
| BMS Discharge Voltage 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

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|------------------------------|-----------------------------|
| 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 | 29.8 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 |



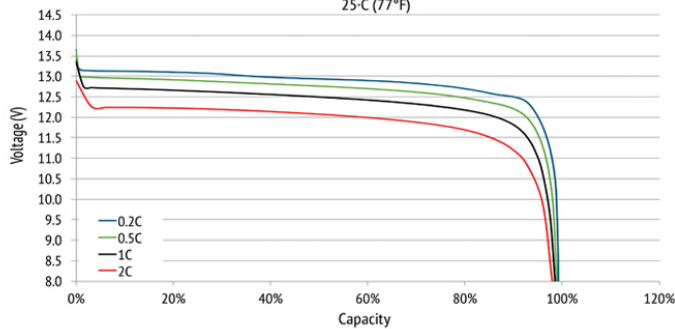


RB100-HP

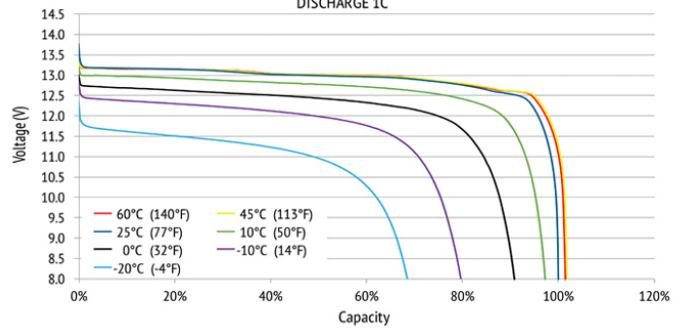
Group: 31

PERFORMANCE CHARACTERISTICS

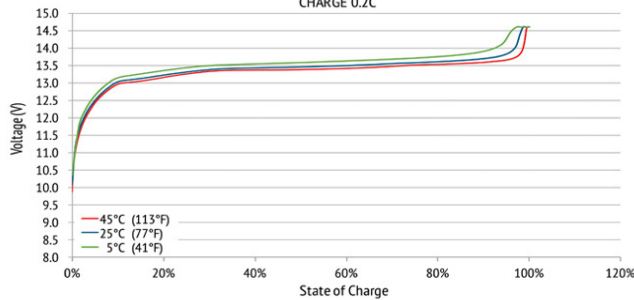
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS RATES
25°C (77°F)



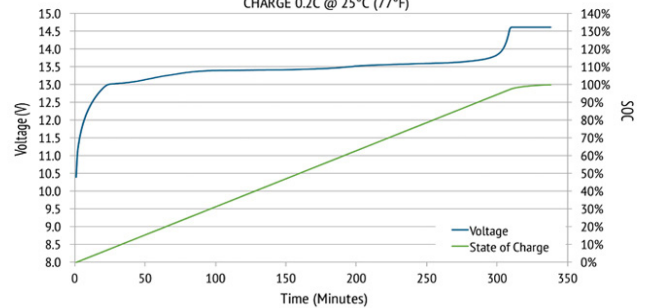
DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES
DISCHARGE 1C



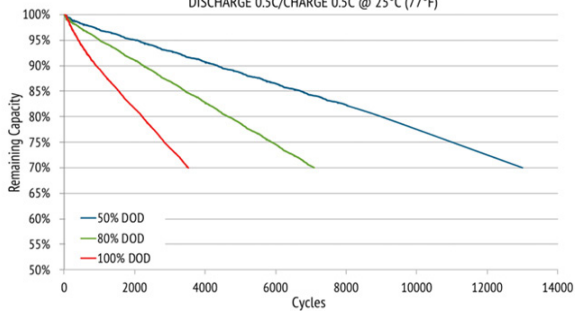
CHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES
CHARGE 0.2C



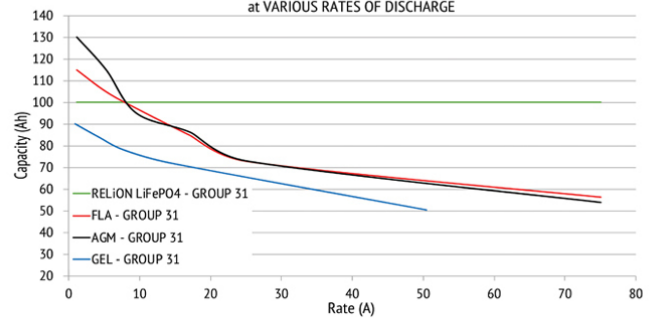
CHARGE VOLTAGE and STATE OF CHARGE (SOC)
CHARGE 0.2C @ 25°C (77°F)



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



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