RELi3ON®

# RB35-X


Group: U1

## LITHIUM IRON PHOSPHATE BATTERY

### ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| Nominal Voltage | 12.8 V |
| Nominal Capacity | 35 Ah |
| Capacity @ 25A | 84 min |
| Energy | 448 Wh |
| Resistance | ≤50 mΩ @ 50% SOC |
| Efficiency | 99% |
| Self Discharge | <3% per Month |
| Maximum Modules in Series | 1 |

### MECHANICAL SPECIFICATIONS

| | |
|---|---|
| Dimensions (L x W x H) | 7.7 x 5.2 x 6.7"<br>195 x 131 x 171 mm |
| Weight | 11.4 lbs (5.17 kg) |
| Terminal Type | M8 |
| Terminal Torque | 80 - 100 in-lbs (9 - 11 N-m) |
| Case Material | ABS |
| Enclosure Protection | IP56 |
| Cell Type - Chemistry | Cylindrical - $LiFePO_4$ |

### DISCHARGE SPECIFICATIONS

| | |
|---|---|
| Maximum Continuous Discharge Current | 70 A |
| Peak Discharge Current | 100 A (7.5 s ±2.5 s) |
| BMS Discharge Current Cut-Off | 160 A ±20 A (9 ±4 ms) |
| Recommended Low Voltage Disconnect | 11 V |
| BMS Discharge Voltage Cut-Off | 8 V (2.0 ±0.08 vpc) (144 ±30 ms) |
| Reconnect Voltage | 8.64 V ±0.96 V (2.16 ±0.24 vpc) |
| Short Circuit Protection | 200-800 µs |

### CHARGE SPECIFICATIONS

| | |
|---|---|
| Recommended Charge Current | 1.75 A - 17.5 A |
| Maximum Charge Current | 70 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 | 15.6 V (3.9 ±0.025 vpc)<br>(1.2 ±0.3 s) |
| Reconnect Voltage | 15.2 V (3.8 ±0.050 vpc) |
| Balancing Voltage | 14.4 V (3.6 ±0.025 vpc) |

### TEMPERATURE SPECIFICATIONS

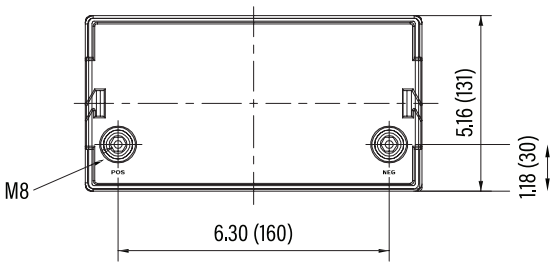
| | |
|---|---|
| Discharge Temperature | -4 to 140 °F (-20 to 60 °C) |
| Charge Temperature* | -4 to 113 °F (-20 to 45 °C) |
| Storage Temperature | 14 to 95 °F (-10 to 35 °C) |
| BMS High Temperature Cut-Off | 167 °F (75 °C) |
| Reconnect Temperature | 122 °F (50 °C) |

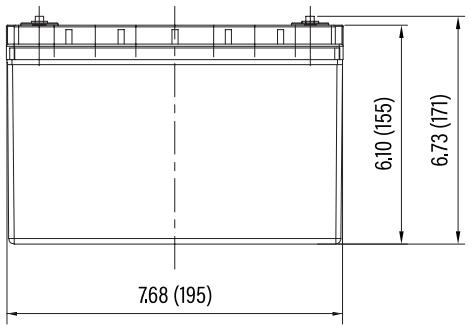
*Refer to charge currents below 32°F (0°C)

### COMPLIANCE SPECIFICATIONS

| | |
|---|---|
| Certifications | CE (battery)<br>UL1642 & IEC62133 (cells) |
| Shipping Classification | UN 3480, CLASS 9 |

### DIMENSIONAL SPECIFICATIONS



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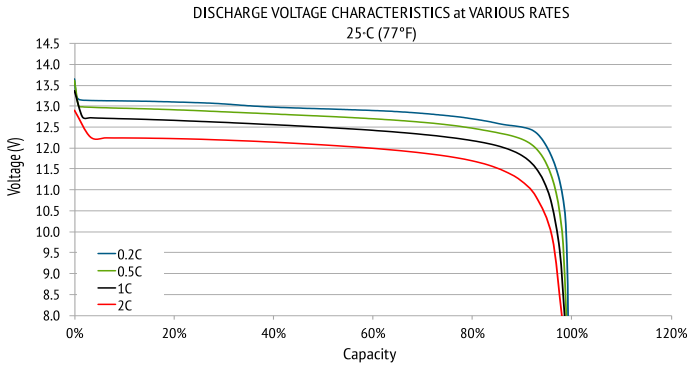
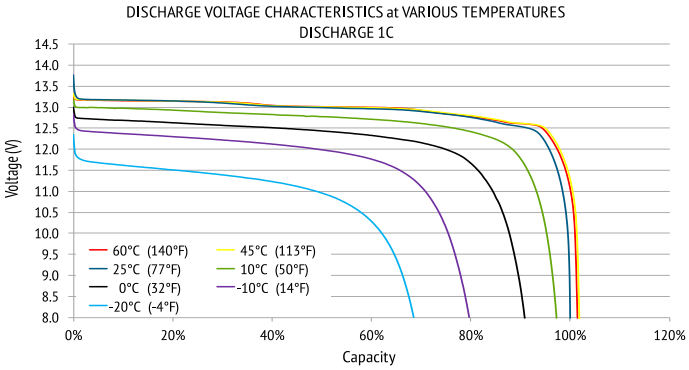
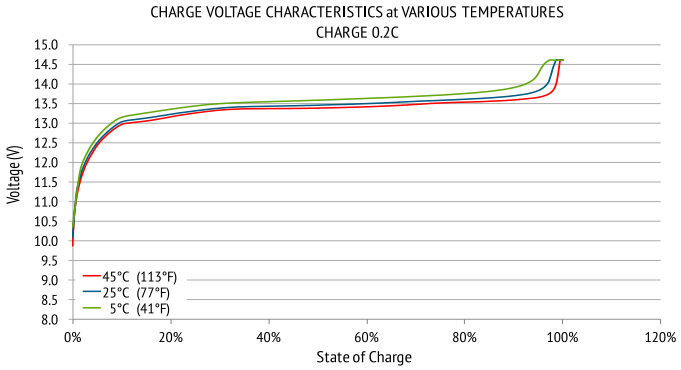
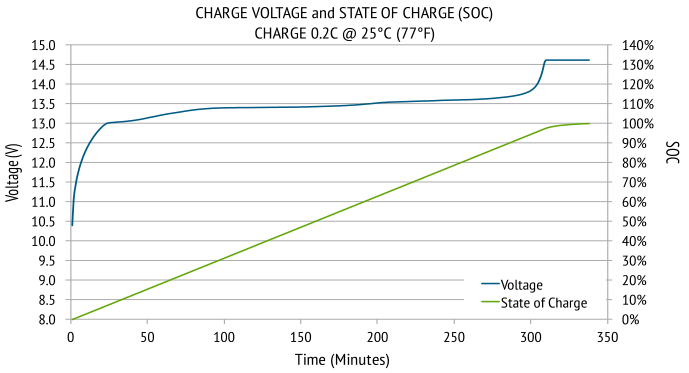
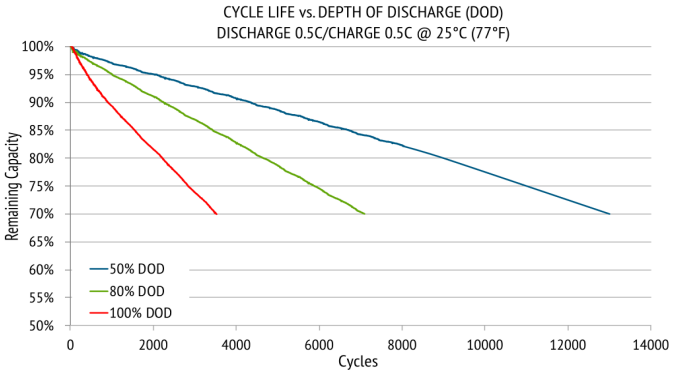
## PERFORMANCE CHARACTERISTICS

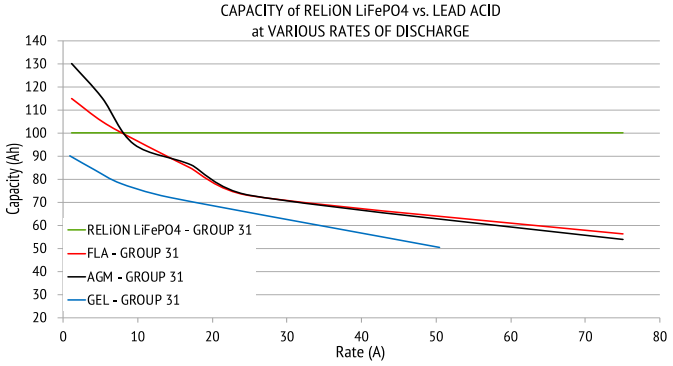




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