



# RB48V100

Voltage: 51.2V | Capacity: 100 Ah | Energy: 5120 Wh

LITHIUM IRON PHOSPHATE BATTERY **LiFePO<sub>4</sub>**

## ELECTRICAL SPECIFICATIONS

|                           |                  |
|---------------------------|------------------|
| Nominal Voltage           | 51.2 V           |
| Nominal Capacity          | 100 Ah           |
| Capacity @ 25A            | 240 min          |
| 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 | 200 A             |
| Peak Discharge Current               | 250 A (4 s ±1 s)  |
| BMS Discharge Current Cut-Off        | 300 A (5 s)       |
| Recommended Low Voltage Disconnect   | 44 V              |
| BMS Discharge Voltage Cut-Off        | 40 V (2.5 vpc)    |
| Reconnect Voltage                    | 40.5 V (2.53 vpc) |
| BMS SOC Disconnect                   | 5%                |

## TEMPERATURE SPECIFICATIONS

|                                |                             |
|--------------------------------|-----------------------------|
| Discharge Temperature          | -4 to 131 °F (-20 to 55 °C) |
| Charge Temperature*            | -4 to 131 °F (-20 to 55 °C) |
| Storage Temperature            | 23 to 95 °F (-5 to 35 °C)   |
| BMS High Temperature Cut-Off   | 149 °F (65 °C)              |
| Reconnect Temperature          | 145 °F (63 °C)              |
| BMS Low Temperature Disconnect | -4 °F (-20 °C)              |
| Reconnect Temperature          | -0.4 °F (-18 °C)            |

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

## MECHANICAL SPECIFICATIONS

|                        |                                             |
|------------------------|---------------------------------------------|
| Dimensions (L x W x H) | 32.8 x 11.2 x 10.0"<br>832.4 x 285 x 255 mm |
| Weight                 | 136.7 lbs (62 kg)                           |
| Terminal Type          | M8 x 1.25 x 12mm                            |
| Terminal Torque        | 80 - 100 in-lbs (9 - 11 N-m)                |
| Case Material          | Steel Case                                  |
| Enclosure Protection   | IP66                                        |
| Cell Type - Chemistry  | Cylindrical - LiFePO <sub>4</sub>           |

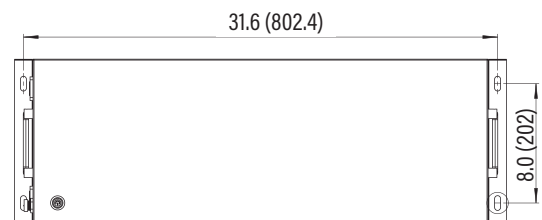
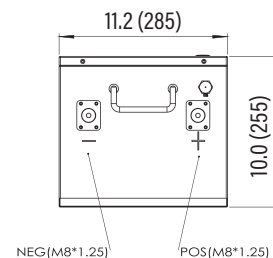
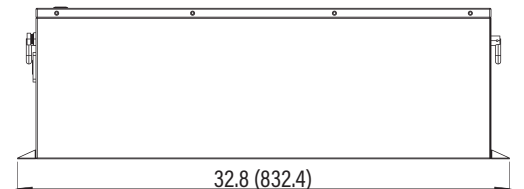
## CHARGE SPECIFICATIONS

|                                            |                   |
|--------------------------------------------|-------------------|
| Recommended Charge Current                 | ≤50 A             |
| Recommended Maximum Charge Current         | 100 A             |
| BMS Charge Current Disconnect              | 200 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                 | 56.0 V - 58.4 V   |
| BMS Charge Voltage Disconnect              | 60.8 V (3.9 vpc)  |
| Reconnect Voltage                          | 60.3 V (3.87 vpc) |

## COMPLIANCE SPECIFICATIONS

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

## DIMENSIONAL SPECIFICATIONS



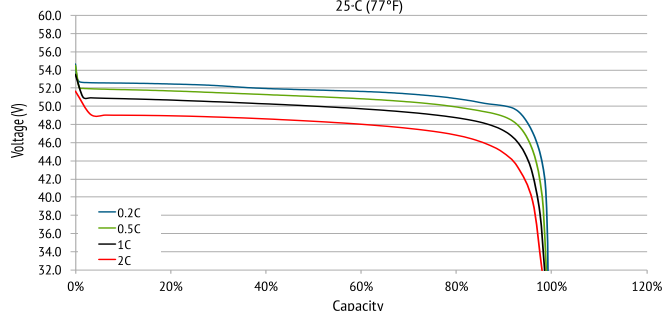
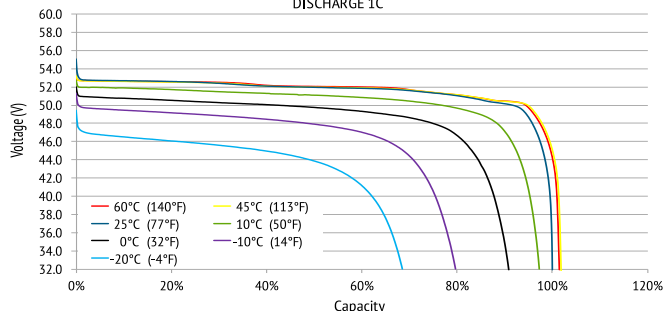
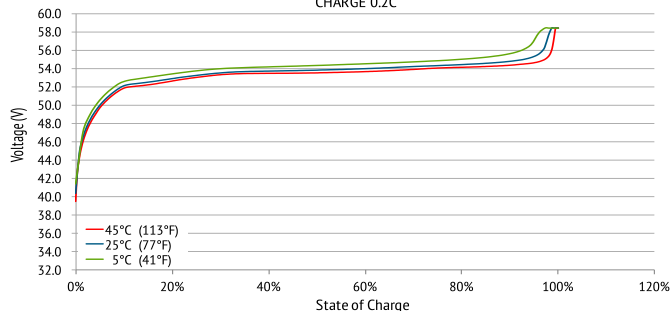
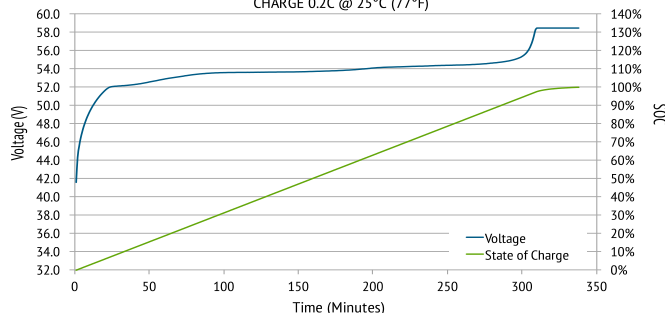
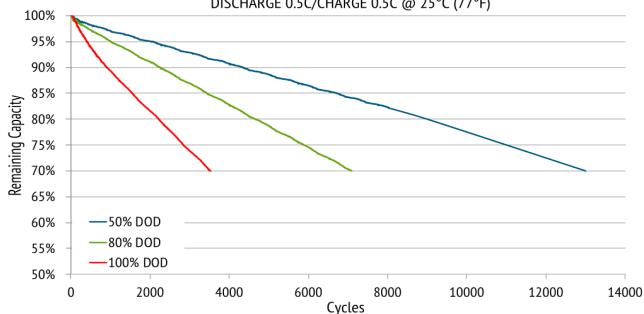


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## PERFORMANCE CHARACTERISTICS

DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS RATES  
25°C (77°F)DISCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
DISCHARGE 1CCHARGE VOLTAGE CHARACTERISTICS at VARIOUS TEMPERATURES  
CHARGE 0.2CCHARGE 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 LiFePO<sub>4</sub> vs. LEAD ACID  
at VARIOUS RATES OF DISCHARGE