

# DRIVE MOTION LITHIUM DATA SHEET



## LFP12.8V400AH (8D)



### Electrical Specifications

|                  |                 |
|------------------|-----------------|
| Nominal Voltage  | 12.8 V          |
| Nominal Capacity | 400 Ah          |
| Energy           | 5120 Wh         |
| Self Discharge   | ≈ 3% per month  |
| Efficiency       | >98%            |
| Parallel Support | Yes, Max 2 Sets |
| Series Support   | Yes, Max 4 Sets |

### Discharge Specifications

|                          |             |
|--------------------------|-------------|
| Max. Discharge Current   | 100 A       |
| End of Discharge Voltage | 11.2 V      |
| Pulse Discharge Current  | 270 A @ 10s |
| Low Voltage Disconnect   | 10 V        |
| Low Voltage Reconnect    | 11.2 V      |

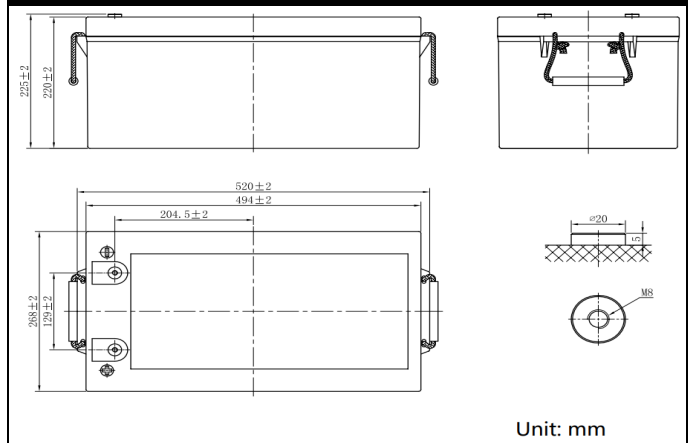
### Charge Specifications

|                              |             |
|------------------------------|-------------|
| Charging Voltage             | 14.6 V      |
| Max. Charging Current        | 100 A       |
| Recommended Charging Current | 20 A - 80 A |
| High Voltage Disconnect      | 14.8 V      |
| High Voltage Reconnect       | 13.8 V      |

### Temperature Specifications

|                             |                               |
|-----------------------------|-------------------------------|
| Discharge Temperature       | -20°C - +55°C (-4°F - +131°F) |
| Charge Temperature          | -20°C - +55°C (-4°F - +131°F) |
| Storage Temperature         | -10°C - +45°C (14°F - +113°F) |
| High Temperature Disconnect | +75°C (+167°F)                |
| High Temperature Reconnect  | +70°C (+158°F)                |
| Low Temperature Disconnect  | -20°C (-4°F)                  |
| Low Temperature Reconnect   | -15°C (5°F)                   |

### Dimensional Specifications



### Mechanical Specifications

|                       |   |
|-----------------------|---|
| Dimensions (Group 8D) | 522 x 268 x 220<br>20.55 x 10.55 x 8.66 |
| Weight                | 32 Kg (70.5 lbs)                        |
| Terminal Type         | M8                                      |
| Terminal Torque       | 9.8N/m                                  |
| Enclosure Protection  | IP65                                    |

### Selfheating Specifications

|                     |                              |
|---------------------|------------------------------|
| Heating Temperature | -20°C - +10°C (-4°F - +50°F) |
| Activation Voltage  | 14.6 V                       |
| Heating Current     | 7 A                          |
| Heating Power       | 100 W                        |

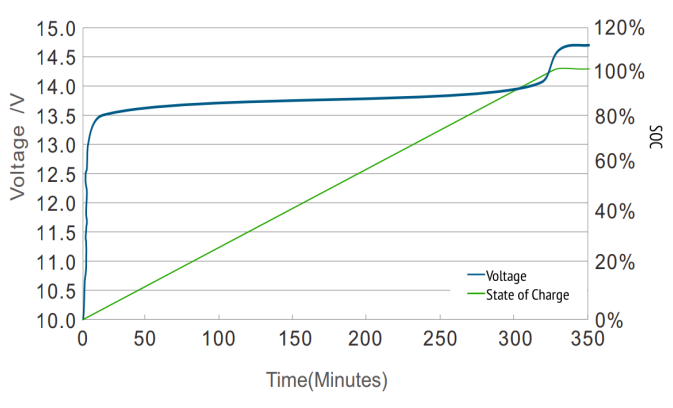
### Conception & Compliance

|                         |  |
|-------------------------|--|
| Conception              | 4S3P                                     |
| Cell Type               | Grade A Prismatic LiFePO4 cells (100Ah)  |
| Certifications          | UN38.3 & CE (battery),<br>UL1642 (cells) |
| Shipping Classification | UN 3480, CLASS 9                         |

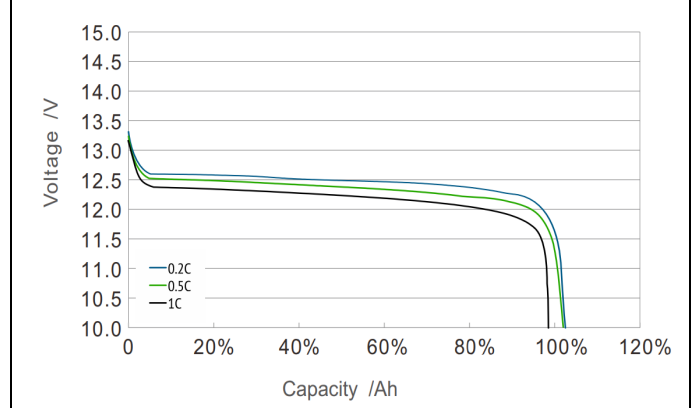
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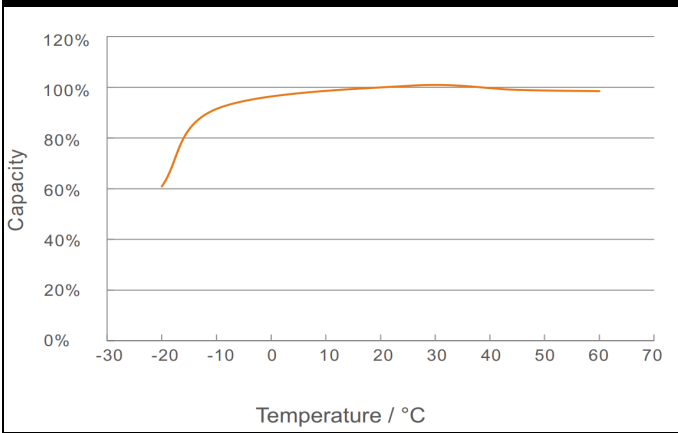
### Charge Voltage & State of Charge (SOC) 0.2C@25°C (77°F)



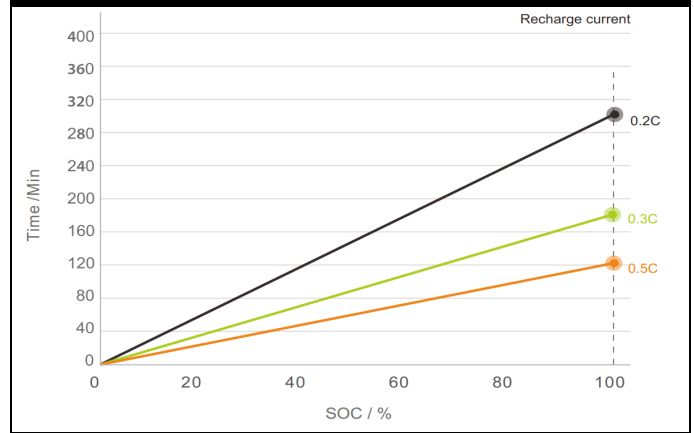
### Discharge Voltage Characteristics at Various Rates 25°C (77°F)



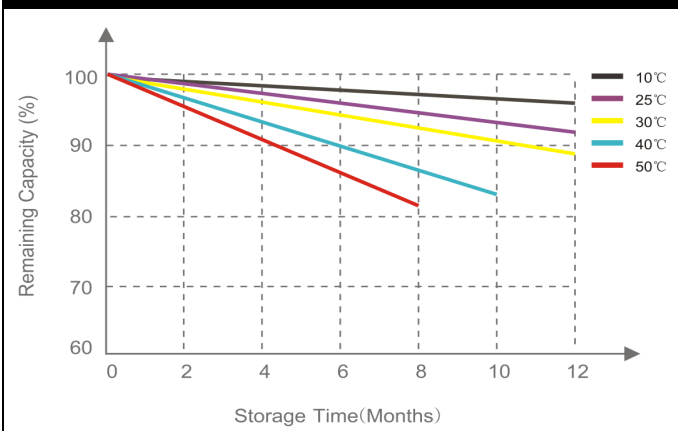
### Capacity at Different Temperatures



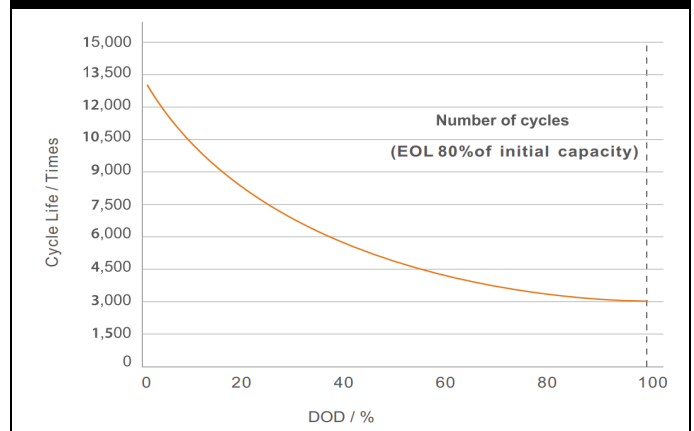
### Typical Recharge Time



### Self Discharge Curve at Different Temperatures



### Typical Cycle Life



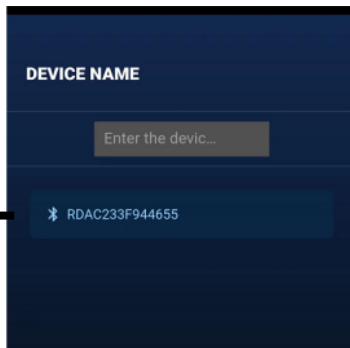


## Bluetooth App User Guide

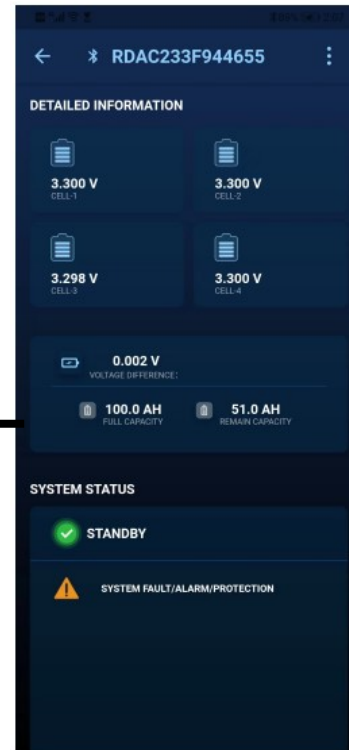
Note to user: If the battery receives no charge or is not discharged for over 60 mins, the battery will enter sleep mode. To wake up the battery, simply apply a charge or load and the battery will be visible and ready for pairing in the app.



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links



Bluetooth ID



Cell Voltage

Cell Voltage Difference

Rated Capacity

Remaining Capacity



State of Charge

Battery Voltage

Rated Capacity

Battery Current

Battery temperature

Charge & discharge  
MOS control status

Number of cycles

Status: Standby,  
Charge or Discharge

Alarm & Protection:

- Low temp. alarm
- Low temp. protection
- High temp. alarm
- High temp. protection
- Low voltage alarm
- Low voltage protection
- Over current alarm
- Short current protection



## Selfheating Function User Guide