



# FUSION BATTERY

LITHIUM

## V-LFP-12-110M

LITHIUM IRON PHOSPHATE BATTERY

### PERFORMANCE

- Long Cycle Life >2000 cycles @ 100% DOD.
- High Density, High Discharge Current, High Temperature Range.
- Light Weight, Maintenance Free.
- Fast Charging.
- Environment Friendly.

### FEATURES

- Lithium Iron Phosphate (**LiFePO<sub>4</sub>**).
- Integrated Battery Management System (BMS).
- BMS with Intelligent Cell Balancing
- Anti-Vibration
- Rugged Metal Case

### BATTERY DATA SHEET

#### Electrical Parameters

|                                    |                             |
|------------------------------------|-----------------------------|
| Nominal Voltage                    | 12.8V                       |
| Rated Capacity                     | 108Ah                       |
| Energy                             | 1382Wh                      |
| Resistance                         | ≤30m Ω                      |
| Efficiency                         | 99%                         |
| Cycle Life                         | >2000 cycles @ 1C, 100% DOD |
| Self Discharge                     | 2% per Month                |
| Max. Battery connected in Series   | 4PCS                        |
| Max. Battery connected in Parallel | 20PCS                       |

#### Discharge Parameters

|                               |                 |
|-------------------------------|-----------------|
| Continuous Discharge Current  | 100A            |
| Peak Discharge Current        | 300A(5 seconds) |
| Recommended Volt. Disconnect  | 10V             |
| BMS Discharge Cut-off Voltage | 8V              |
| Reconnect Voltage             | 9.2V            |
| Short Circuit Protection      | 200~600 us      |

#### Compliance Certificate

|                         |                         |
|-------------------------|-------------------------|
| Certifications          | UL1642(CELL)            |
|                         | CE                      |
|                         | IEC62133 & CB           |
|                         | KC                      |
|                         | BIS                     |
| Shipping Classification | UN3480, Class 9, UN38.3 |

#### Mechanical Parameters

|                       |                                       |
|-----------------------|---------------------------------------|
| Dimension(L x W x H)  | 300 x 173 x 205 mm                    |
|                       | 11.81 x 6.81 x 8.07"                  |
| Weight                | 15.5kg(34.1lbs)                       |
| Terminal Type         | M8 *Terminal Torque 10-12 (N.m)       |
| Battery Housing       | Metal                                 |
| Housing Protection    | IP67                                  |
| Cell Type-Chemistry   | LiFePO <sub>4</sub> Cylindrical Cells |
| SOC Display(Optional) | None                                  |

#### Charge Parameters

|                            |            |
|----------------------------|------------|
| Charge Method              | CC-CV      |
| Charge Voltage             | 14.4~14.8V |
| Recommended Float Voltage  | 13.8V      |
| Recommended Charge Current | 25A        |
| Maximum Charge Current     | 100A       |
| Minimum Charge Current     | 10A        |
| BMS Charge Cut-off Voltage | 15.6V      |

#### Temperature Parameters

|                              |                           |
|------------------------------|---------------------------|
| Discharge Temperature        | -20 to 60°C (-4 to 140°F) |
| Charge Temperature           | 0 to 45°C (32 to 113°F)   |
| Storage Temperature          | -20 to 60°C (-4 to 140°F) |
| BMS Low Temperature Cut-off  | -10°C(14°F)               |
| BMS Low Temperature Turn-On  | 0°C(32°F)                 |
| BMS High Temperature Cut-off | 65°C(149°F)               |
| BMS High Temperature Turn-On | 45°C(113°F)               |

#### HEAD OFFICE

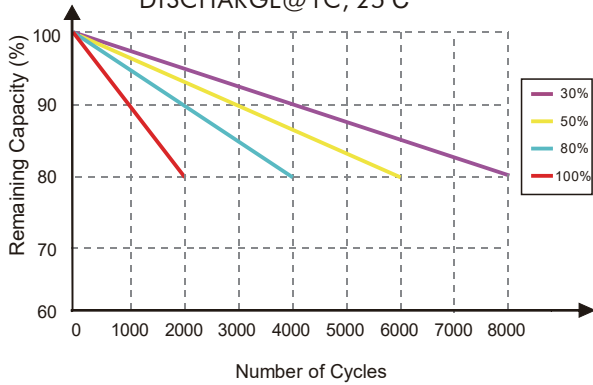
Unit 30 76 Hume Highway LANSVALE NSW 2166

Tel: +(02) 9755 7851 Fax: +(02) 9755 7852

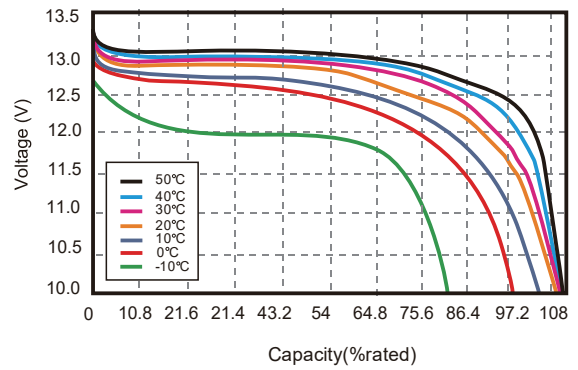
Email: batteries@superstart.com.au

## Performance Characteristics

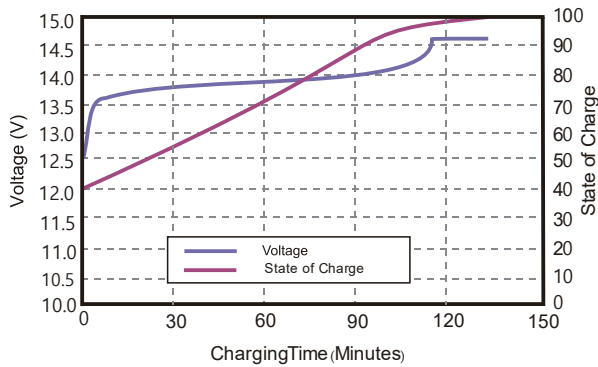
CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD)  
DISCHARGE @ 1C, 25°C



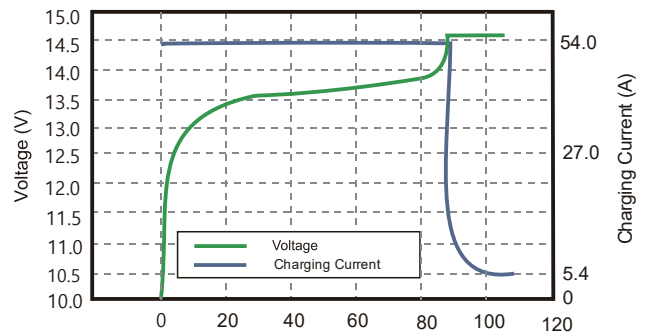
DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @ 1C, 25°C



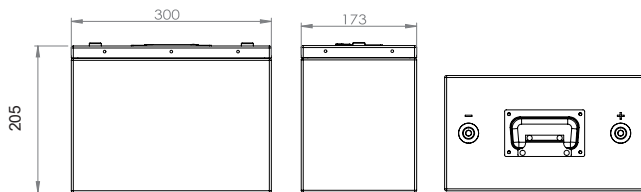
STATE OF CHARGE CURVE @ 0.5C, 25°C



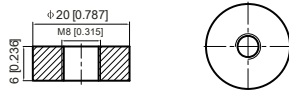
CHARGING CHARACTERISTICS @ 0.5C, 25°C



## Battery Dimension



M8 - 1.0x 8mm  
Threaded Hole



**Terminal Torque**  
10-12 (N.m)

## Battery Applications

- + Marine (House Batteries)
- + RV / Camping (Automotive)
- + Data Center UPS
- + Telecom Backup Power
- + Military Power Supply
- + Solar Energy Storage System
- + Solar Street LED Lightings
- + Autonomously Guided Vehicles (AGVs)
- + Industrial Robotics & Handling Equipment
- + Floor Cleaning Machines
- + Power Tools, Lawn Mower
- + Electric Bike & Motorcycles
- + Electric Mobilities (E-scooters, Wheelchair)
- + Golf Trolley & Golf Carts
- + Medical Devices
- + Electric Boats
- + Electric Fences

**NOTE:** Do Not Mix With Sealed Lead Acid Batteries When Recycling. See FUSION User's Manual for Proper Operation. Fusion Lithium BATTERIES. All Rights Reserved.



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