



FUSION LITHIUM BATTERY

V-LFP-12-50

LITHIUM IRON PHOSPHATE BATTERY

PERFORMANCE

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

FEATURES

- Lithium Iron Phosphate (LiFePO4)
- Integrated Battery Management System (BMS)
- BMS with Intelligent Cell Balancing
- Sealed ABS Plastic Housing
- SOC LED / LCD Indicator

BATTERY DATA SHEET

Electrical Parameters

Nominal Voltage	12V
Rated Capacity	50Ah
Energy	600Wh
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	50A
Peak Discharge Current	150A (10 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, UL2054
	CE
	IEC62133 & CB
	KC
	BIS
Shipping Classification	UN3480, Class 9, UN38.3

Mechanical Parameters

Dimension (L x W x H)	197 x 165 x 170 mm
	7.76 x 6.50 x 6.69"
Weight	6.5kg (14.33lbs)
Terminal Type	M6
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP65
Cell Type-Chemistry	LiFePO4 Cell
SOC Display (Optional)	LED/LCD Indicator

Charge Parameters

Charge Method	CC-CV
Charge Voltage	14.4~14.8V
Recommended Float Voltage	13.8V
Recommended Charge Current	25A
Maximum Charge Current	50A
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	-25 to 60°C (-13 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	48°C (118.4°F)

HEAD OFFICE

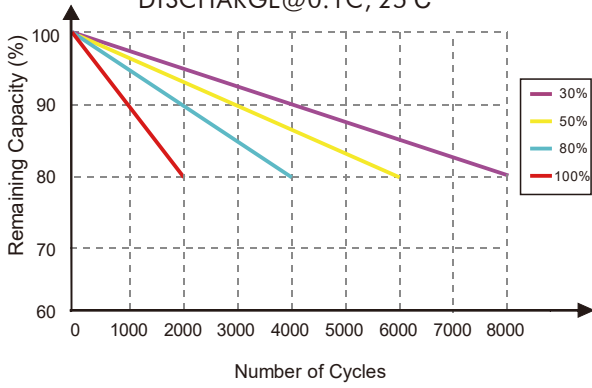
Unit 30 76 Hume Highway LANSVALE NSW 2166

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

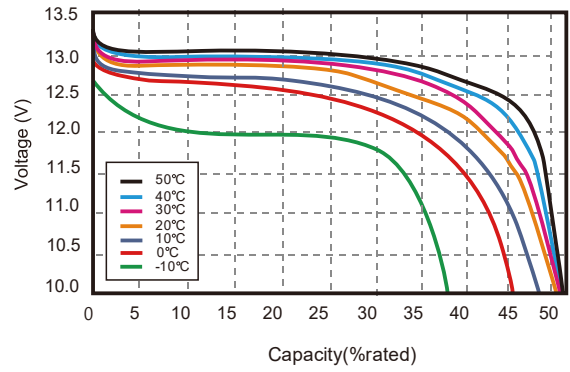
Email: batteries@superstart.com.au

Performance Characteristics

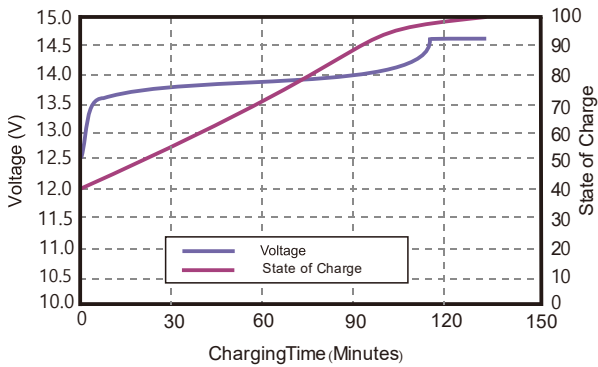
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)
DISCHARGE@0.1C, 25°C



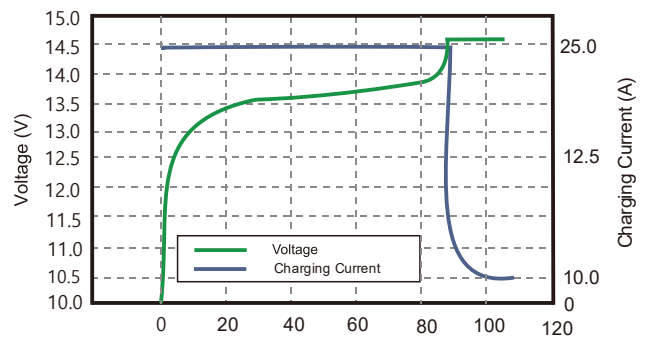
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @ 1C, 25°C



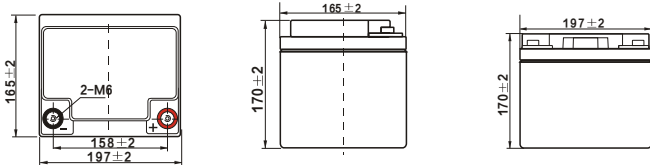
STATE OF CHARGE CURVE @0.5C, 25°C



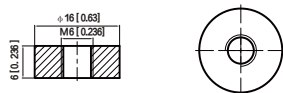
CHARGING CHARACTERISTICS @0.5C, 25°C



Battery Dimension



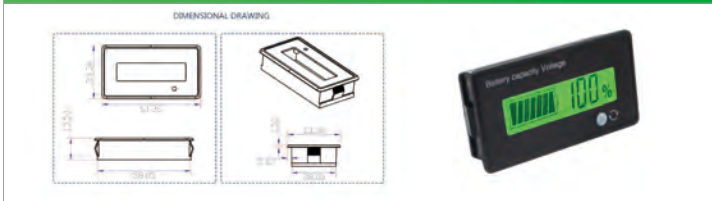
M6-1.0x6mm
Threaded Hole



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

Soc LCD Indicator



LCD Indicator: The Meter can display battery capacity and battery Voltage.
Switch button: The function key can switch to check Capacity Percentage, Voltage and display On/ Off.

- Capacity Percentage
- Voltage
- Display On / Off



NOTE:

Do Not Mix with sealed lead acid batteries.
See Fusion user manual for operating Procedures.
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