

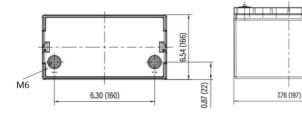
# Lithium Iron Phosphate (LiFePO4) Battery 12.8V 50Ah/50A BMS

### Features:

- Longer Cycle Life: LFP Offers up to 20 times longer cycle life and 5 times longer float/calendar life than a lead acid battery. This helps to minimize replacement cost and reducing the total cost of ownership over time.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. LFP is generally a "drop-in" replacement for lead acid batteries.
- Higher Power: Delivers twice the power of a lead acid battery, even at high discharge rates, whilst maintaining high energy capacity.
- Wider Temperature Range: -20°c to +60°c.
- Superior Safety: Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impacts, overcharging or short circuit.
- **Increased Flexibility:** Modular design enables deployment of up to four batteries in series and max 12 batteries in parallel.
- Connectivity: Use the free iOS or Android app to monitor via Bluetooth.
- Protection: Advanced built-in BMS provides high protection when in use.



### **General Description:**



# Applications:

- Electric vehicles, boats, toys
- · Mobility scooters
- Kontiki, trolling motors
- Solar/wind energy storage
- Telecommunications
- Medical equipment
- UPS, Back-up power
- Emergency lighting

### **General Description:**

This high performance 12.8V 50Ah capacity LFP battery is perfect for powering your deep cycle systems. The battery design is strong, safe and easy to use. This is the very latest Lithium technology available and with our unique onboard BMS (Battery Management System) further increase safety and durability.

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Batteries can be connected in parallel for increased capacity and connected in series for increased voltage Max 48V, 840Ah (40kWh).

Electrical Specifications:		
Nominal Voltage:	12.8V	
Nominal Capacity:	50Ah	
Nominal Energy:	640Wh	
Internal Resistance:	≤30mΩ @ 50% SOC	
Capacity:	@ 10A: 300minutes (5hours)	
Self-Discharge:	< -5% / per month	
Maximum in Series:	4 pcs	
Maximum in Parallel:	12 pcs	

Mechanical Specifications:		
Terminal Type:	2 * M6 Bolts (washers incl.)	
Weight:	6.5kg	
Case Dimension (L x W x H):	197mm x 166mm x 173mm	
Case Type:	Black ABS, IP66 rating	
Cell type / Chemistry:	Prismatic-LiFePO4	
Bluetooth Smart Module:	iOS/Android free app	
BMS Features:		
Low voltage, high voltage, over temperature, over-current, short-circuit protection, cell balancing, Bluetooth connectivity		

# **Discharge Current and Voltage:**

Max Continuous Discharge Current:	50A
Peak Discharge Current:	70A (10s)
Discharge Pulse Current:	120A ±50A (31ms ±10ms)
BMS Low Voltage Cut-off:	8.8V (2.2V ±0.5V)
BMS Reconnect Voltage:	10.8V (2.7V ±0.05V)
Short-Circuit Protection:	200-800µs Auto-recover or charge release

# **Charge Current and Voltage:**

Max Charge Current	50A
Recommended Charge Current:	5A – 25A
End of Charge Voltage:	14.4V ±0.2V
BMS Over Charge Voltage Cut-Off:	15V (3.75V ±0.05V)
Balancing Voltage:	3.6V ±0.05V per cell
Balancing Current:	66mA ±10mA

# **Temperature Ranges:**

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Discharge Temperature:	-20°c to +60°c
Charge Temperature:	-20°c to +45°c
Storage Temperature:	-20°c to +45°c
High Temperature Protection:	+60°c

# **Compliance Specifications**

**Shipping Classifications:** 

CE for pack
UN38.3 for pack
UL1642 for cells
IEC61233 for cells
BIS for cells

UN3840

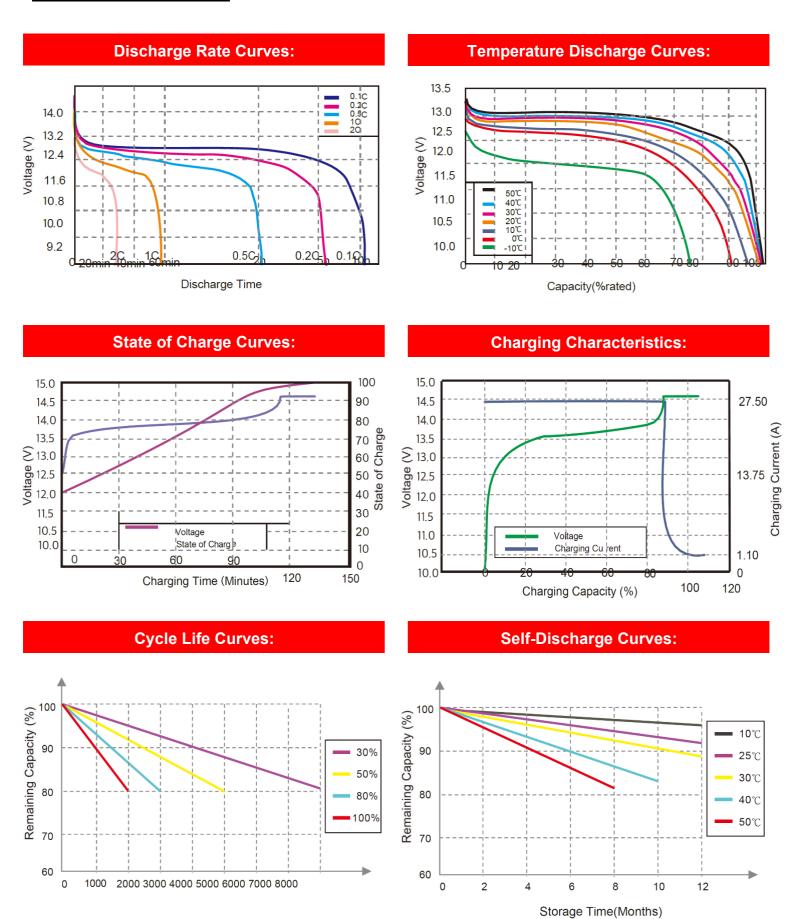
# Packaging:







### **Performance Characteristics:**



# iOS / Android App Specifications:





- Free Download from Google Play or the App Store
- BLE4.0
- State of charge, cycle count, current, voltage, temperature, capacity, average time to full/empty







