

# 12v 18Ah

## DATA SHEET

### PRODUCT FEATURES

- Ultra safe lithium iron phosphate (LiFePO<sub>4</sub>) cells
- Integrated battery management system (BMS)
- Light weight and compact
- Water and dust resistant (IP55)
- Highly durable sealed ABS plastic enclosure
- Drop-in 12v lead acid replacement
- Sealed and non-liquid (No fumes, no leaking, mount in any position)



### TYPICAL APPLICATION

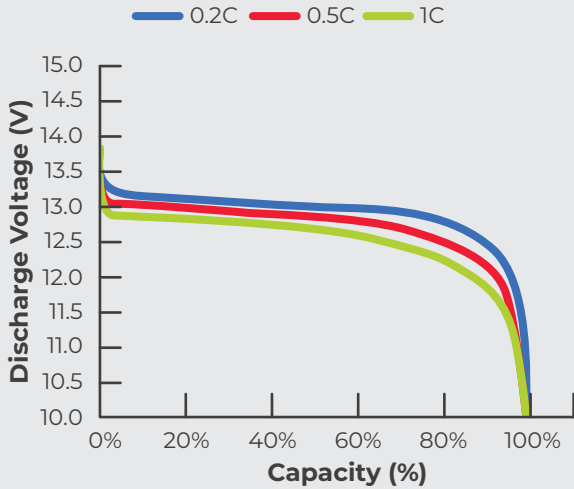
- Replace 12v18Ah lead acid with long life lithium battery
- Any application that needs higher charge & discharge current in this battery size
- Large alarm system backup battery

### TECHNICAL SPECIFICATION

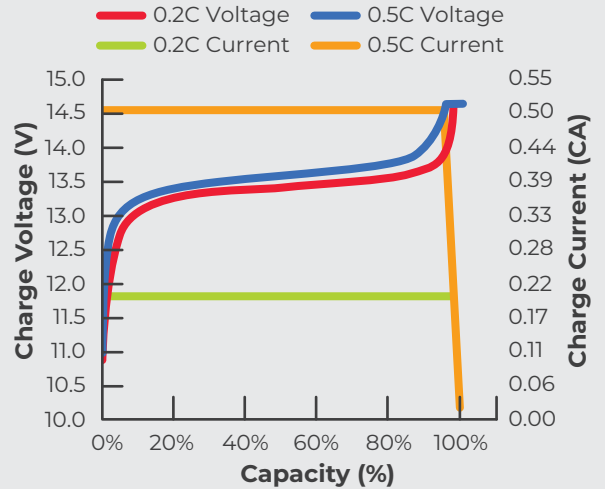
<b>Usable Capacity</b>	230.4 Wh	<b>Nominal Voltage</b>	12.8 VDC
<b>Nominal Capacity</b>	18Ah @ 0.2C	<b>Operating Voltage Range</b>	11.6 VDC – 14.4 VDC
<b>Weight (kg)</b>	2.1kg	<b>Warranty Period</b>	2 Years
<b>Bulk Charging Voltage</b>	14.4 VDC	<b>Float Charging Voltage</b>	13.8 VDC
<b>Maximum Current</b>	18A	<b>Discharge Voltage Minimum</b>	12v
<b>Self-discharge Rate</b>	< 3.5% per month	<b>Cycle Life</b>	2000 – 8000 depending on % DoD
<b>Over-voltage Cut-out</b>	14.6v	<b>Under-voltage Cut-out</b>	10v
<b>Discharge Current</b>	Max 18A	<b>Charge Current</b>	Max 18A
<b>Battery Type</b>	Lithium Iron Phosphate (LiFePO <sub>4</sub> )		
<b>Dimensions (mm)</b>	184 x 80 x 175 mm (W x D x H)(H=195mm including terminals)		
<b>Lifespan</b>	100%DoD > 2000 cycles, 80%DoD > 3000 cycles, 50%DoD >5000 cycles (0.2C charging or discharging, 25°C)		
<b>Protection</b>	Over-voltage   Under-voltage   Short circuit   Dust and water resistant		
<b>Operating Temp Range</b>	Charge: 0°C to 45°C   Discharge: -20°C to 60°C		

# LITHIUM IRON PHOSPHATE (LiFePO4) BATTERY

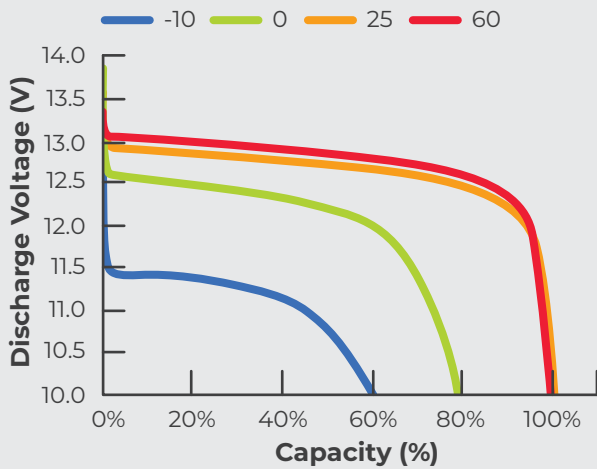
Different Rate Discharge Curve @25 °C



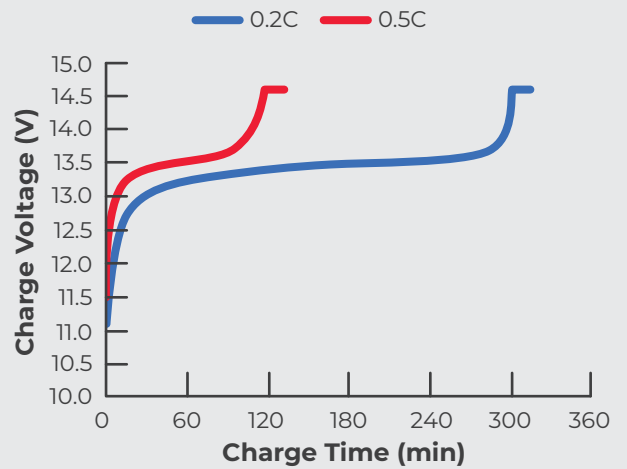
Charge Characteristics Of Capacity Voltage @0.2C & 0.5C, 25 °C



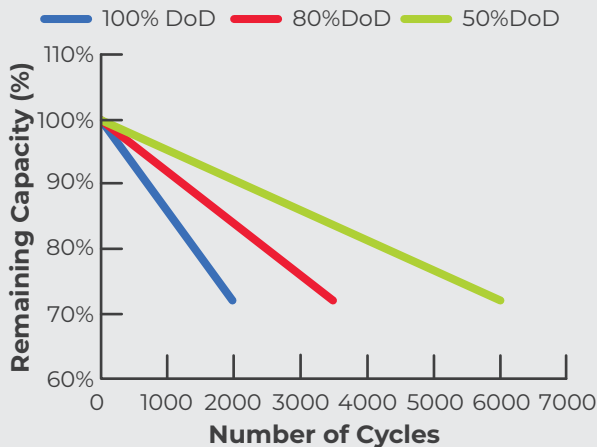
Different Temperature Discharge Curve @0.5C, 25 °C



Charge Characteristics Of Capacity Voltage @0.2C & 0.5C, 25 °C



Different DoD Discharge Cycle Life Curve @0.5C, 25 °C



Open Circuit Voltage VS SOC% @25 °C

