



LFP Battery NEXT GENERATION 12V 12Ah			
Max. Continuous Discharge Current	12A	Discharge Cut Off Voltage	10V
Standard Charging Current	2.4A	Charge Cut Off Voltage	14.6V

# BEHOLD THE NEXT GENERATION IN BATTERY TECHNOLOGY

## Why universal battery® LFP Batteries?

Our trusted batteries have been powering essential and critical applications for over half a century. We believe in always delivering the best in quality, performance and customer experience - and that is how we roll.

Custom-engineered for exceptional power, our LiFePO<sub>4</sub> (LFP) batteries are the future in battery technology. Ultra-light weight and more powerful than traditional sealed lead-acid batteries, our LFP batteries deliver the best performance in the most extreme environments.



**10X the cycle life**  
of sealed lead-acid  
batteries



**Ultra light weight**  
A third of the weight of  
traditional sealed  
lead-acid batteries



**Charges 3X faster**  
than sealed lead-acid  
batteries



**Smart Battery Management  
System** protection  
included

# Have you ever left on an application and returned later to find out that the batteries are over-discharged and beyond repair?

This will never happen with a Universal Battery® LFP battery. With over 50 years of building batteries, you can count on our LFP batteries to be the best choice.

## Features:

- Cycle Life over 2000 cycles
- Low Voltage Cutoff built inside the battery so you cannot damage the battery
- High Current Cutoff built inside the battery so you cannot overload or damage the battery
- Low and High Temperature cutoffs inside the battery so you cannot damage the battery
- Close to 100 percent of the battery capacity even at higher currents



## Engineered for:



Battery Backup



Ice Fishing & Hunting



Industrial



Lighting



Medical



Oil & Gas



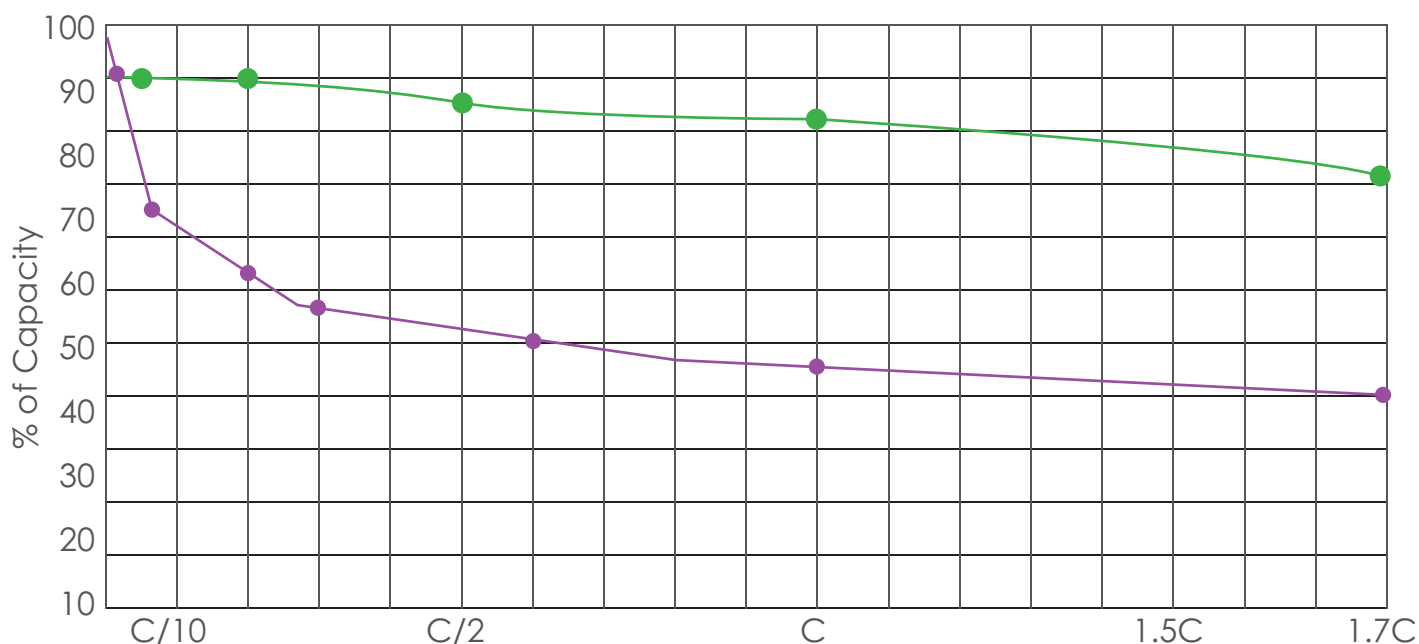
Security



Solar

## The results speak for themselves.

For SLA, as discharge currents increase, the amp hour capacity decreases rapidly. For LFP, as battery discharge currents increase, the amp hour capacity change is minimal.



— universal battery® LFP  
— SLA

C = The amp hour rating of the battery

C/20 - Discharge the battery for 20 hours;  
C/10 - Discharge the battery for 10 hours

### SLA Battery

<b>Nominal Voltage</b>	12.8 Volts
<b>Nominal Capacity</b>	77° F (25° C)
20-hr. (5.00 A)	100 Ah
10-hr. (9.30 A)	93 Ah
5-hr. (17.0 A)	85 Ah
1-hr. (60.0 A)	60 Ah
<b>Approximate Weight</b>	55 lbs (24.9 kgs)
<b>Shelf Life</b> (% of normal capacity at 68°F (20°C))	
3 Months	6 Months
90%	80%
	60%

### universal battery® LFP Battery\*





<b>Nominal Voltage</b>	12.8 Volts
<b>Nominal Capacity</b>	77° F (25° C)
20-hr. (5.00/ A)	103 Ah
10-hr. (10.0 A)	103 Ah
3-hr. (33.0 A)	103 Ah
2-hr. (48.5 A)	97 Ah
<b>Approximate Weight</b>	23.1 lbs (10.5 kgs)
<b>Shelf Life</b> (% of normal capacity at 68°F (20°C))	
3 Months	6 Months
97%	95%
	90%

\*Please note: Universal Battery® LFP batteries are not shipped fully charged per regulations.

# The Battery Management System (BMS) monitors voltage current and battery temperature for you.

Our LFP batteries have an internal Battery Management System (BMS) which monitors the voltage, current and battery temperature of each cell in the LFP battery. If conditions are over the limits of the battery, the BMS will turn the battery off, similar to a circuit breaker in your house. The battery will turn itself back on when the conditions are within the battery parameters.

## Run time comparisons for UPG LFP batteries vs SLA batteries.

 Laptop	<b>Universal Battery® LFP1260</b> Run Time - 1.14 Hours Total Run Time* - 2280 Hours	<b>Sealed Lead-Acid Battery 7Ah</b> Run Time - 46 Minutes Total Run Time* - 192 Hours	<b>Sealed Lead-Acid Battery 9Ah</b> Run Time - 1.08 Hours Total Run Time* - 270 Hours
 400-Watt Inverter at 30% Power (120W)	<b>Universal Battery® LFP12120</b> Run Time - 55 Minutes Total Run Time* - 1833 Hours	<b>Sealed Lead-Acid Battery 18Ah</b> Run Time - 50 Minutes Total Run Time* - 208 Hours	
 400-Watt Inverter at 50% Power (200W)	<b>Universal Battery® LFP12180</b> Run Time - 49 Minutes Total Run Time* - 1633 Hours	<b>Sealed Lead-Acid Battery 22Ah</b> Run Time - 33 Minutes Total Run Time* - 138 Hours	<b>Sealed Lead-Acid Battery 26Ah</b> Run Time - 43 Minutes Total Run Time* - 179 Hours
 2000-Watt Inverter at 20% Power (400W)	<b>Universal Battery® LFP121030</b> Run Time - 2.3 Hours Total Run Time* - 4600 Hours	<b>Sealed Lead-Acid Battery 110Ah</b> Run Time - 1.6 Hours Total Run Time* - 400 Hours	

\* For hours of total run time, we are estimating 2000 cycles for LFP and 250 cycles for SLA at 100% DOD; Temperature at 68° F. Please note: Times are estimated.

## Cost of ownership.

While LFP batteries are more expensive than SLA batteries, the cost is reasonable if you are looking for longer cycle life and to save time through quick and easy charging.



**We recommend Universal Battery® Maintainer 4000 to keep your battery charged and maintained.**



# We offer multiple battery sizes to fit your application.

In most applications, our LFP battery line can replace a higher amp-hour SLA battery.\*



## LFP645

UPG No. 48086

4.5Ah Battery

F1 Terminals

0.83 lbs

L: 2.8"; W: 1.9"; H: 4.00"; TH: 4.20"



## LFP1260

UPG No. 48043

6Ah Battery in a 7Ah Case

F2 Terminals

2.65 lbs

L: 5.94"; W: 2.56"; H: 3.74"; TH: 4.00"



## LFP12120

UPG No. 48042

12Ah Battery in a 9Ah Case

F2 Terminals

3.51 lbs

L: 5.94"; W: 2.56"; H: 3.74"; TH: 4.00"



## LFP12180

UPG No. 48044

18Ah Battery in a 12Ah Case

F2 Terminals

4.85 lbs

L: 5.94"; W: 3.90"; H: 3.70"; TH: 4.06"



## LFP121030

UPG No. 48040

103Ah Battery in a Group 27 Case

I8 Terminals

30 lbs

L: 13.0"; W: 6.81"; H: 8.50"

\*User should ensure that they are following recommended application guidelines.

## Features:



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of sealed lead-acid  
batteries



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System protection  
included



**Charges 3X faster**  
than sealed lead-acid  
batteries



**Ultra lightweight**  
A third of the weight of  
traditional sealed  
lead-acid batteries



**2.5X longer shelf life**  
compared to sealed  
lead-acid batteries



**Eco friendly**  
No harmful pollutants,  
corrosive acids or toxic  
heavy metals



**Ideal for  
extreme  
environments**

universal battery®

**LFP  
BATTERIES**

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Learn more about our products at [www.upgi.com](http://www.upgi.com)

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