

LITHIUM BATTERY SPECIFICATIONS

LIFEP04

Li

Lithium



Lithium-Iron Phosphate Battery (LiFeP04)

- Longer-life and inherently safe
- Lowest Risks of overheating dangers
- Commonly Used in renewable energy, power tools, medical equipment
- Heavier and Higher Cost, but More Life Cycles than Li(NiCoMn)O2
- Energy Density (95-140) Wh/kg

(source: <http://synergyfiles.com/2015/09/5-types-of-lithium-ion-batteries>)

Type	LiFeP04 Lithium-Iron Phosphate					
Model	12V50AH	12V100AH	12V200AH	12V300AH	12V400AH	24V100AH
Nominal capacity (Amp Hour)	50 Amp Hour	100 Amp Hour	200 Amp Hour	300 Amp Hour	400 Amp Hour	100 Amp Hour
Nominal Operating Voltage	12 Volts to 12.8 Volts					24 Volts
Cell Type	3.2V/50Ah	3.2V20Ah	3.2V20Ah	3.2V50Ah	3.2V200Ah	3.2v50Ah
Cell Configuration	4S1P	4S5P	4S10P	4S10P	4S2P	8S2P
Max. Charge Current	25A	40A	40A	50A	50A	40A
Max. Discharge Current	300 AMPS					
Minimum Life Cycles	>2500					
Dimensions	280 x 246 x 156 mm 11" x 9.7" x 6.1"	280 x 246 x 156 mm 11" x 9.7" x 6.1"	355 x 272 x 166 mm 14" x 10.7" x 6.5"	460 x 380 x 320 mm 18" x 15" x 12.5"	615 x 205 x 450 mm 24.2" x 8" x 17.7"	320 x 250 x 280 mm 12.5" x 9.8" x 11"
Weight	13KG / 28LBS	16KG / 35LBS	30KG / 66LBS	43KG / 94LBS	80KG / 177LBS	32KG / 71LBS
Case Material	ABS				Metal Case	ABS
Work Temp	-20~+60°C					
Humidity	45~85%RH					
BMS Protections	Float Charge Function, Over-Charge Protection, Max-Discharge 200A, Over-Discharge, Overload, Short-Circuit					

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
 300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

Li

Lithium



LITHIUM BATTERY SPECIFICATIONS

Li(NiCoMn)O2

Lithium-Nickel Manganese Cobalt Oxide Battery

- Smaller and Lighter than LIFEP04
 - Lower Cost, but Lower Life Cycles than LIFEP04
 - Has Lowest Heat Risk besides LIFEP04
 - Commonly Used Electric Cars, Power tools, e-bikes, Scooters
 - Energy Density (95-130) Wh/kg
- (source: <http://synergyfiles.com/2015/09/5-types-of-lithium-ion-batteries>)

Type	Li(NiCoMn)O2 Lithium-Nickel Manganese Cobalt Oxide					
Model	12V50AH	12V100AH	12V200AH	12V300AH	24V100AH	24V200AH
Nominal capacity (Amp Hour)	50 Amp Hour	100 Amp Hour	200 Amp Hour	300 Amp Hour	100 Amp Hour	200 Amp Hour
Retail Price	\$449	\$899	\$1599	\$2299	\$1799	\$3499
Nominal Operating Voltage	12 Volts			24 Volts		
Cell Type	3.7V2500mAh	3.7V2500mAh	3.7V2500mAh	3.7V3000mAh	3.7V2500mAh	3.7V2500mAh
Cell Configuration	3S20P	3S40P	3S80P	3S100P	3S40P	3S80P
Max. battery charging voltage	12.6 Volts					
Max. discharge current	300 AMPS					
Constant discharge current	100 AMPS					
Minimum Life Cycles	>1500					
Dimensions	280 x 246 x 156mm 11" x 9.7" x 6.1"	280 x 246 x 156 mm 11" x 9.7" x 6.1"	355 x 272 x 166 mm 14" x 10.7" x 6.5"	415 x 335 x 180 mm 16.3" x 13" x 7"	330 x 230 x 220 mm 13" x 9" x 8.6"	440 x 330 x 220 mm 17.3" x 13" x 8.6"
Weight	6KG / 13 LBS	10KG / 22LBS	19KG / 41LBS	24KG / 52LBS	22KG / 48.5LBS	42KG / 92.5LBS
Working Temp	-20~+60°C					
Humidity	45~85%RH					
BMS Protections	Over-charge, over-discharge, overload, short-circuit					

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS

48 Volt LIFEP04



Type	LiFePO4	LiFePO4	LiFePO4
Model	48V200AH	48V400AH	48V600AH
Nominal capacity	200Ah	400AH	600AH
Nominal voltage	48V	48V	48V
Cell type	36115200-3.2V-50Ah	32135230-3.2V-80Ah	31135230-3.2V-75Ah
Configuration	15S4P	15S5P	15S8P
Max. battery charging voltage	54V	54V	54V
Max. discharge current	200A	200A	200A
Constant discharge current	100A	100A	100A
Life Cycles*	>2000		
100% DOD	>5000		
50% DOD	>5000		
Work Temp	-20-60	-20-60	-20-60
Humidity	45%-85%	45%-85%	45%-85%
Protections	Over-charge, over-discharge, overload, short-circuit		
AC Charger	Optional		
Communication mode	RS485		
Package	In steel case		
Size	660 x 480 x 260 mm 26 x 19 x 10"	930 x 550 x 260mm 36 x 21 x 10"	1020 x 850 x 260mm 40 x 33.5 x 10"
Weight	110KG / 242LB	285KG / 628 LB	440KG / 970LB

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS



NEW! Lithium Batteries for Automotive and Motorsport Use!

Direct Replacement. For many popular Battery Sizes/Groups.

High Power. Available with 1100 or 1500 Cranking Amps.

Battery Management System. Built-in each battery.

Lightweight. Drop approximately 45lbs! 70% lighter.

Proven Superior. The Best LIFEP04 Lithium Batteries on Earth.

Type	LiFePO4 Lithium-Iron Phosphate	
Model	AA1100	AA1500
Nominal capacity (Amp Hour)	60 Amp Hour	100 Amp Hour
Operating Voltage	12V to 12.8V	
Max Charge Voltage	14.4 ± 0.2V (12.6V Charge Cutoff)	
Cranking Amps	1100 CA	1500 CA
OEM Replacement	Group 35 / Q85 Group 35 Group 47 Group 51R	Group 31 Group 48 Group 94
Actual Battery Dimensions	9 x 6.8 x 8"	12 x 6.8 x 8"
Weight	16.5LBS	26LBS
Max. Charge Current	80A	
Max. Discharge Current	100A	
Minimum Life Cycles	>2500	
Case Material	ABS	
Work Temp	-20~+60°C	
Humidity	45~85%RH	

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

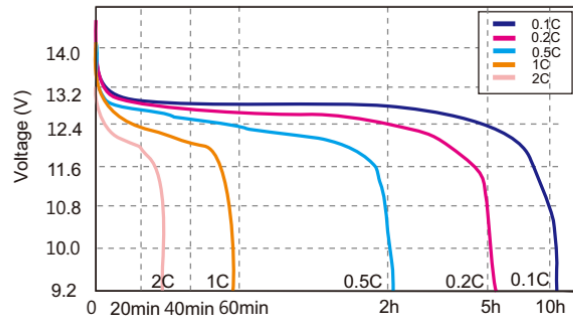
Pacific Management Group LLC dba Pacific Sun Systems
 300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS

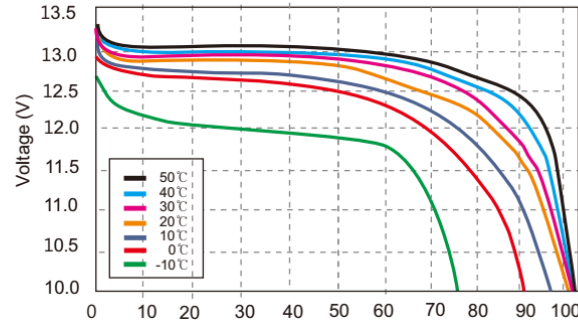
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



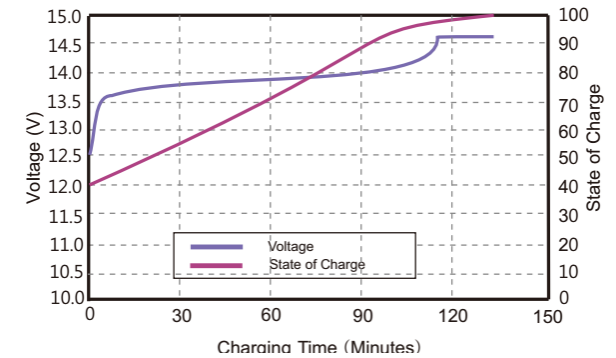
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



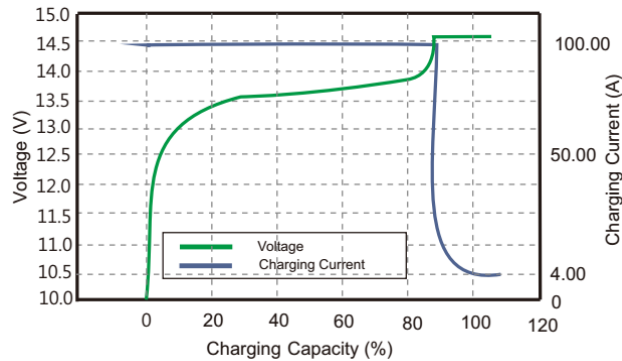
State of Charge Curve

State of Charge Curve @0.5C 25°C



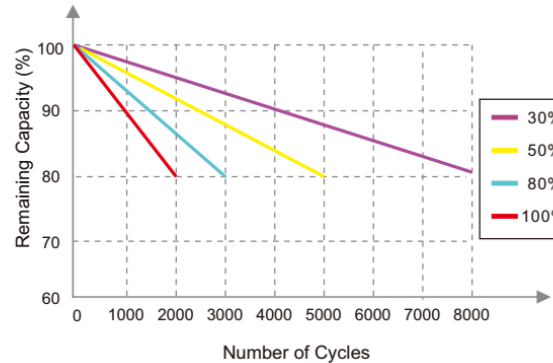
Charging Characteristics

Charging Characteristics @0.5C 25°C



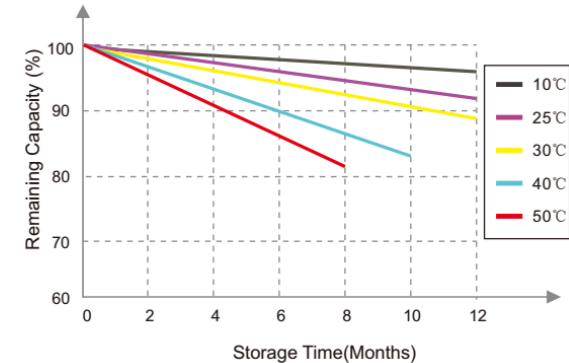
Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve



www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
 300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS

LITHIUM BATTERY INTERNATIONAL WARRANTY

The period of the warranty begins on the date of delivery to the original user and lasts for the period shown. This warranty excludes any and all damages caused during shipping. This warranty includes all international customers, including international freight. Extended warranties are available through your reseller or dealer.

Product	Warranty Period	What's Covered	Freight Paid?
LIFEPO4	Four Years	Parts and Labor	If Defective
Li(NiCoMn)O2	Three Years	Parts and Labor	If Defective

MODEL NO. _____

SERIAL NO. _____

NAME OF ORIGINAL USER: _____

ADDRESS: _____

PHONE NUMBER OR EMAIL: _____

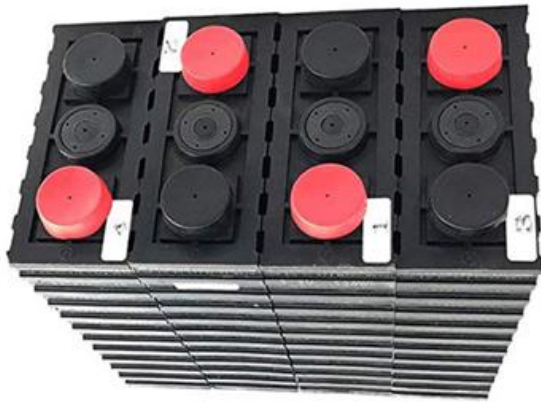
*Warranty from NRRG China

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS



Sinopoly 12V Sets Include (Without BMS)



LiFePO4 12V 200Ah Lithium Iron Phosphate Battery Pack, Light Weight LiFePO4 Battery for RV, Solar, Marine, and Off-Grid Applications

by RuiXu
Be the first to review this item | 7 answered questions

Price: **\$1,199.00 & FREE Shipping**

Get \$50 off instantly: Pay \$1,149.00 upon approval for the Amazon Rewards Visa Card. No annual fee.

Size: **12V200AH**

12V40AH \$269.00	12V60AH \$399.00	12V100AH \$599.00	12V200AH \$1,199.00
---------------------	---------------------	----------------------	--------------------------------

- size:278*180*280mm | weight:25kgs
 - BMS do not included,if you need BMS,pls message me
 - ≥2000 times cycle life
 - 1C max charge rate | 3C max discharge rate
 - Light Weight | Easy Installation
- See more product details

Compare with similar items

New (1) from \$1,199.00 & FREE shipping.

Report incorrect product information.

Save on AmazonBasics and SupplyMaster Safety Gear

\$1,199.00
& **FREE Shipping**

Get it Thu, May 16 - Fri, May 24

Usually ships within 1 to 3 weeks.

Qty: 1

\$1,199.00 + Free Shipping

Add to Cart

Buy Now

Ships from and sold by RUIXU.

Deliver to

Add to List

Share

Have one to sell?

Sell on Amazon

Link: https://www.amazon.com/dp/B07PW4R4PS/ref=cm_sw_r_tw_dp_U_x_xEeXCbMP3HQCE

WHATS NEEDED:

- 1) Connect the cells in series or parallel.
- 2) Balance the batteries.
- 3) Add a Battery Management Systems (BMS) to protect from over/undercharge (\$50-\$150).
- 4) Properly protect / cover the raw exposed metal terminal connectors, especially in mobile applications.
- 5) The tools, knowledge and technical skills to do this.

SUMMARY

These are only Battery Cells for the price shown (\$599 for 100AH). If you want an actual battery that is plug and play ready, this is not it. You will need to add about 2 hours of labor plus parts to make this battery "Complete". For \$179 more you can buy a complete turn-key battery. The actual cost of parts and value of your time could quickly add up making the complete battery for \$779 the much better choice.

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS

GENERAL COMPARISON: LITHIUM VS LEAD ACID

	LEAD ACID	LIFEP04 LITHIUM
LIFE SPAN (DAILY CYCLES)	300	3000
RATED AMP HOURS	110	100
ACTUAL AMP HOURS	85-90	95-100
BATTERIES NEEDED X 10 YRS	10	1
AVERAGE COST PER BATTERY	\$250 - \$450	\$1,000.00
TOTAL 10 YR COST	\$2500 - \$4500	\$1,000.00
TOTAL SAVINGS PER BATTERY		\$1500 - \$3500

100AH Lithium Battery Brand Comparison

- 1) Renogy LFP-12-100 \$899 (plus shipping)
- 2) Battle Born BB10012 \$949 (plus shipping)
- 3) Fuel Zero FZ-12-100 \$780 (plus shipping)
- 4) AIMS LFP12V100AH \$849 (plus shipping)
- 5) Green Life GL100-12V \$1249 (plus shipping)

6) NRRG by Pacific Sun Systems \$779 (Free Shipping)

<https://pacificsunsystems.com/catalog/product/12v-100ah-lithium-battery-lifep04/>

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com

LITHIUM BATTERY SPECIFICATIONS

MARINE TROLLING MOTORS

Marine Trolling Motor Size	86LB	62LB	55LB	46LB	40LB	36LB
Lead Acid Battery Size	12V 100AH					
Run Time on Lead Acid @ 100% Full Speed	1 hour	1.7 hours	1.9 hours	2.5 hours	2.8 hours	3.4 hours
Weight of 100AH Lead Acid Battery	66LBS					
Cost of 100AH Lead Acid Battery	\$250					
Estimated Life	2 Years					
10 Year Cost	\$1,250					
Run Time on 100AH Lithium @ 100% Full Speed	2.3 hours	1.9 hours	2.2 hours	2.7 hours	3.3 hours	3.8 hours
LIFEP04 Lithium						
Estimated Life of LIFEP04 Lithium	10 Years					
Final Comparison with LIFEP04 Lithium	38% Lower 10 Year Cost, 1/2 the weight, 20% longer Run Time @ 100%					
Li(NiCoMn)O2 Lithium						
Weight	22 LBS					
Estimated Life of Li(NiCoMn)O2 Lithium	7 Years					
Final Comparison with Li(NiCoMn)O2	1/3 the weight for special requirements, 20% longer Run Time @ 100%					

www.PacificSunSystems.com/Lithium
sales@pacificsunsystems.com

Pacific Management Group LLC dba Pacific Sun Systems
300 S Highland Springs Ave, Suite 3, #203 Banning, CA 92220

*Lithium Batteries cannot be connected in a Series, but can be connected in Parallel. Specifications Are Subject To Change Without Notice, Please handle all batteries with Caution. For Terms and Conditions Visit www.pacmgmt.com