



K2 ENERGY

LFP Batteries | Systems | Solutions





K2 ENERGY



K2 Energy Solutions is based in Henderson, Nevada, and was established to revolutionize the battery industry by creating a cutting-edge family of large format batteries and battery systems using lithium iron phosphate (LFP) technology. Over the years, K2 has built a robust portfolio of core technology and has introduced a market-leading product line. The company's proprietary battery design provides enhanced safety and reliability compared to conventional lithium ion batteries, as well as improved weight, power, sustainability, and longevity compared to existing lead acid batteries. K2 is the unparalleled leader in the LFP market, due to its extensive experience in developing and producing these batteries and its continuous commitment to product improvement and advancement.

K2 Energy Solutions offers a wide range of battery solutions that cater to the diverse needs of multiple industries, including Medical, Industrial, Agriculture, Solar, Marine, and Recreational uses. Our batteries are used in medical equipment such as patient monitors, defibrillators, and infusion pumps due to their high reliability and exceptional performance. Industrial facilities benefit from our products as they are designed to operate under extreme conditions that other batteries cannot handle. Using our batteries, in uninterruptible power sources allow for long-lasting energy storage as well as lower replacement costs than lead acid alternatives. Our marine batteries can power sailboats, motorboats, trolling motors, and fish-finder accessories for a full range of recreational and commercial uses. K2 has models rated for recreational vehicles including RV's, motorhomes, and custom off the grid van builds, which need reliable and efficient power sources. At K2 Energy our goal is to provide energy solutions for multiple industries by offering high-quality durable batteries that excel in build quality and features for all applications.



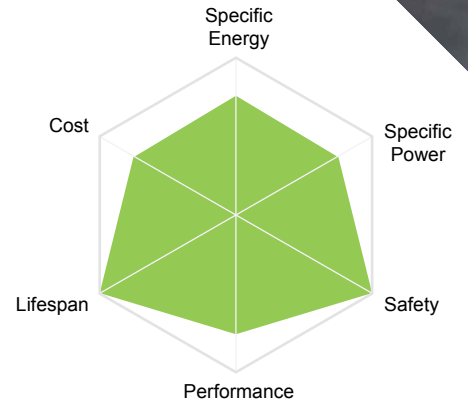
Aerospace | Medical | Industrial | Renewable Energy/ESS | Agricultural | Recreational

K2 Energy Solutions

K2 Energy engineers and manufactures rechargeable lithium ion battery cells and customized energy storage systems for a wide variety of applications. At K2 Energy, we are devoted to advancing the use of rechargeable Lithium Ion Phosphate (LFP) batteries that can readily replace dated chemistries like Lead acid, NiCd, NiMH and LCO.

Our batteries are designed to offer extremely long cycle life, high energy densities, outstanding performance, and quick charging times, while also being environmentally sustainable and providing exceptional safety. We offer a line of lead acid replacement batteries, and our standard batteries are UNDOT and IATA tested.

We strive to create energy products that outperform traditional batteries in performance, safety, power and environmental benefits. Producing energy battery cells and systems we are certain that our products will stand up to whatever challenge you may be facing and will last for years to come.



Performance Benefits



Superior Power

Provides consistent power over a wide range of states of discharge for greater pack utilization



Environmentally Friendly

No harmful or expensive heavy metals – Fully recyclable with minimal harmful environmental impact



Highest Energy Density

Industry's highest LFP energy density with unmatched efficiency and performance



Cycle Life

Delivers thousands of cycles at 100% depth of discharge – 10X the life of traditional lead acid



Safety

Proven chemically safe formula providing abuse tolerance over lithium oxide chemistries



Light Weight

Up to 30% of the weight of traditional lead acid batteries offers smaller space requirements with increased performance



U.S. Customer Support



Live Technical Support



Competitive Pricing



17 Years Knowledge & Experience



K2 ENERGY

HIGH CAPACITY ENERGY BATTERIES



SPECIFICATIONS

Features	K2B12V11EB
Nominal Capacity @ C/5 (Ah)	11.25
Avg. Operating Voltage @ C/5 (V)	12.8
Weight (kg/lbs)	1.3 / 2.87
Length x Width x Height (mm/in)	151 x 64.3 x 97.3 mm 5.94 x 2.53 x 3.83 in
Limit	2 in series
Compatible with many 24V Lead Acid Chargers	✓ Yes
Certifications	UNDOT 38.3 Tested RoHS Compliant

Recommended Uses



Enhanced Shock & Vibration Resistance

EXTREME DUTY K2B24V11EBX Model - designed with an updated protection control module (PCM) with comprehensive upgrades. Now compatible with up to 100V, this PCM is specifically designed to support 3 units in series, providing unparalleled levels of flexibility. Enhanced with increased structural strength, this PCM can resist shock and vibration, ensuring protection even in the harshest conditions. Recommended for off-road, military, and aerospace applications.

SPECIFICATIONS

Features	K2B12V22EB	K2B24V11EB	K2B24V11EBX
Nominal Capacity @ C/5 (Ah)	22.4	11.25	11.25
Avg. Operating Voltage @ C/5 (V)	12.8	25.6	25.6
Weight (kg/lbs)	2.5 / 5.51	2.5 / 5.51	2.5 / 5.51
Length x Width x Height (mm/in)	115 x 89.5 x 165 mm 4.53 x 3.52 x 6.50 in	115 x 89.5 x 165 mm 4.53 x 3.52 x 6.57 in	115 x 89.5 x 165 mm 4.53 x 3.52 x 6.57 in
Limit	2 in series	1 in series	1 in series
Compatible with many 24V Lead Acid Chargers	✓ Yes	✓ Yes	✓ Yes
IP Rating	IP62 - Splash & Dust	IP62 - Splash & Dust	IP62 - Splash & Dust
Certifications	UNDOT 38.3 Tested RoHS Compliant	UNDOT 38.3 Tested RoHS Compliant UL 2054 Certified* EC 62133 Certified* TUV Approved for Medical Use	UNDOT 38.3 Tested RoHS Compliant UL 2054 Certified* EC 62133 Certified*



Recommended Uses (12V11 & 24V11)



+ Military & Aerospace

*Pending Certification



K2 ENERGY

HIGH CAPACITY ENERGY BATTERIES

SPECIFICATIONS

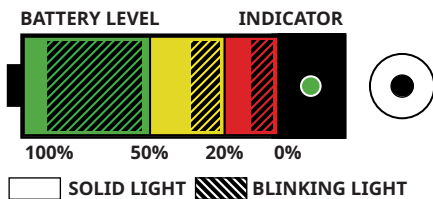
Features	K2B12VU1-1	K2B24VU1-1
Nominal Capacity @ C/5 (Ah)	52.5	26.25
Avg. Operating Voltage @ C/5 (V)	12.8	25.6
Weight (kg/lbs)	5.7 / 12.5	5.3 / 11.7
Length x Width x Height (mm/in)	197 x 132 x 173 mm 7.8 x 5.2 x 6.8 in	197 x 132 x 173 mm 7.8 x 5.2 x 6.8 in
Limit	2 in series	1 in series
K2 Charger Compatible	✓ Yes	✓ Yes
IP Rating	IP62 - Splash & Dust	IP62 - Splash & Dust
Certifications	UNDOT 38.3 Tested RoHS Compliant	UNDOT 38.3 Tested RoHS Compliant
Recommended Uses (12VU1-1 & 24VU1-1)		



SPECIFICATIONS

Features	PRO SERIES K2B12VG27-3
Nominal Capacity @ C/5 (Ah)	112.5
Avg. Operating Voltage @ C/5 (V)	12.8
Weight (kg/lbs)	13.6 / 30
Length x Width x Height (mm/in)	307.4 x 167.7 x 210.8 mm 12.1 x 6.6 x 8.3 in
Form Factor Size	Group 27
K2 Charger Compatible	For Recommended Maintenance Only
IP Rating	IP67 - Waterproof
Certifications	UNDOT 38.3 Tested RoHS Compliant
Recommended Uses	+ Marine & Agriculture

Patented K2 Battery Status & Control Panel



Additional Features

- ✓ Battery Fuel Gauge
- ✓ Full K2 Battery Management System
- ✓ Short Circuit Protection
- ✓ Battery ON/OFF & Shipping Mode



K2 ENERGY

HIGH CAPACITY ENERGY CELLS



SPECIFICATIONS

Features	LFP26650E-3750-11	LFP26650E-3200-11	LFP26650P-2500-41
Cell Chemistry	Lithium Iron Phosphate (LFP)	Lithium Iron Phosphate (LFP)	Lithium Iron Phosphate (LFP)
Cell Type	Energy Cell	Energy Cell	Power Cell
Nominal Capacity @ C/5 (Ah)	3.75	3.2	2.5
Avg. Operating Voltage @ C/5 (V)	3.20	3.2	3.2
Internal Impedance (mΩ)	≤20	<19	<7
Maximum Continuous Discharge (A)	20	12.8	25
Weight (g/oz)	88 ± 2 / 3.14	82 ± 2 / 2.99	86 / 3.03
Certifications	UNDOT 38.3 Tested RoHS Compliant UL 1642 IEC 62133	UNDOT 38.3 Tested RoHS Compliant UL Listed IEC 62133	UNDOT 38.3 Tested RoHS Compliant UL Listed IEC 62133

SPECIFICATIONS

Features	LFP18650E-1500-03	LFP18650P-1350-02
Cell Chemistry	Lithium Iron Phosphate (LFP)	Lithium Iron Phosphate (LFP)
Cell Type	Energy Cell	Power Cell
Nominal Capacity @ C/5 (Ah)	1.5	1.35
Avg. Operating Voltage @ C/5 (V)	3.2	3.3
Internal Impedance (mΩ)	<40	<13
Maximum Continuous Discharge (A)	6.0	21
Weight (g/oz)	40 ± 2 / 1.42	41 ± 2 / 1.45
Certifications	UNDOT 38.3 Tested RoHS Compliant UL 1642 IEC 62133	UNDOT 38.3 Tested RoHS Compliant UL 1642 IEC 62133



K2 COMPATIBLE CHARGERS



SPECIFICATIONS

Features	K2C12V4A	K2C24V2A
Input	100-240V~, 1.8A (MAX) 50/60Hz	100-240V~, 1.8A (MAX) 50/60Hz
Output	14.6V, 4.0A	29.40V, 2.0A
K2 Battery Compatibility	12V11, 12V22, & 12VU1	24V11 & 24VU1

Please consult with a K2 Representative before using a 3rd party charger.



K2 ENERGY

CUSTOM ENERGY SOLUTIONS

K2 Energy not only provides cutting edge technology in the Lithium ion energy storage market, but has a world class team of scientists and engineers with extensive knowledge and experience in all aspects of energy storage design, systems integration, manufacturing, support testing and quality control.

Utilizing the latest Lithium Ion Phosphate technology, we produce incredibly effective energy solutions for use in medical and transportation applications. Since our knowledge base encompasses from the cell to the system level, our team is able to optimize battery solutions to achieve customer's goals. Our technology ensures our customers to maintain their competitive advantage through our constant research and development of new process technology and products; reimagining what is possible and pushing the limits of energy storage technology.

Examples of K2 Custom Builds:

K2X51V420EB - a 51.2V, 420Ah battery pack that would fit under utility vehicles and provide power to hydraulic pumps, lifts, inverter charger and controls. Designed for linemen, power, cable and telecom customers.

K2B160V105EB - a system capable of supplying 160V, 105Ah for a robotics application. Designed to power a robot that lifts Yachts out of the ocean and places them on trailers or storage cradles.

K2X86V210EB - a 86.4V, 210Ah battery pack designed to provide electrical power for lifting large aircraft components into place during aircraft assembly for a commercial aircraft manufacturer.

The K2 engineering team is to develop battery management and storage systems specific to your needs. Contact K2 Energy Solutions for a fully customizable energy solutions today!





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