



Flux Power's advanced energy storage solutions simplify building complex energy systems.

The modular architecture enables a wide array of storage designs.

Product description

Flux Power's rechargeable prismatic lithium battery cells are the cost effective solutions for energy storage. Flux Power's LiFePO4 (LFP) chemistry increases energy density while improving safety. They are ideal for use in PEV and PHEV, energy backup, and energy storage applications.

Using large format prismatic cells helps reduce cost and complexity. Flux Power delivers greater charge density per volume while improving system reliability when compared to cylindrical cells. This architecture also minimizes points of failure and increases serviceability by using fewer cells per system.

LFP cells are considered the "safe" lithium battery technology. With over a decade of chemistry optimization for performance and safety, LFP based batteries have become the industry standard. The nominal voltage is 3.2 V and the operational voltage is between 2.5 V and 3.6 V.

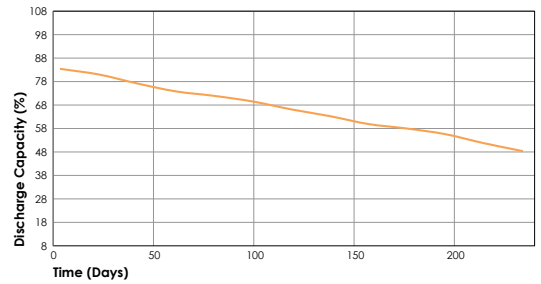
Flux Power addresses a wide range of energy storage requirements with a diverse selection of LFP cells. They are rugged, lightweight, and available in capacities ranging from 40 Ah to over 7000 Ah.

Features & Benefits

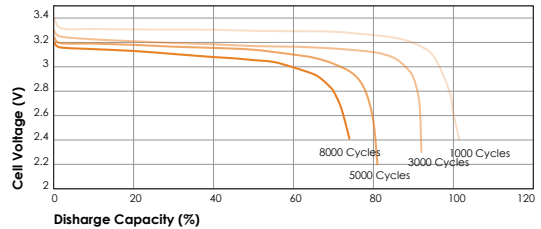
- High energy density
- Single bolt threaded terminals
- Low internal impedance
- 100% factory tested
- Safety pressure relief vent to relieve internal gas pressure due to overcharging
- Durable plastic with ribs for increased rigidity
- High quality copper and aluminum terminals for improved conductivity
- Low weight prismatic cell construction improves system performance for given capacity
- Clear identification of positive and negative terminals for easy installation
- Low voltage drop under load creating high output power
- Bar code identification of part numbers and serial numbers for tracking and inventory management
- Capacities ranging from 40 Ah to 7000 Ah
- Prismatic cell construction optimizes charge capacity per volume by minimizing wasted packaging space.

Performance Charts

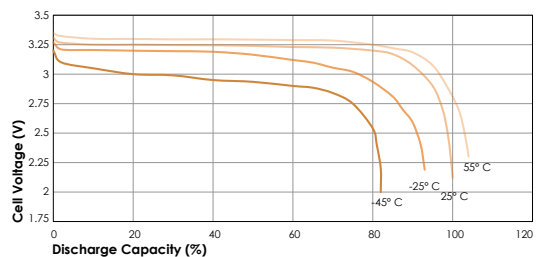
3.2 V Cell Self Discharge (25° C)



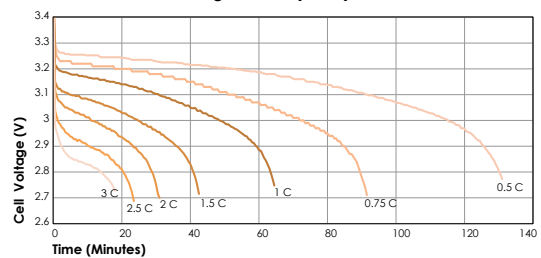
3.2 V Expected Cycle Life with Respect to DOD (0.5C charge/Discharge @25° C)



3.2 V Discharge Curve Under Different Temperature Conditions (0.5 C)



3.2 V LiFePO4 Cell Discharge Curves (25° C)



System Diagram

Cells



Battery Management System



Current Sensor



12 V Battery



Charger



Cells

Metric Measurements

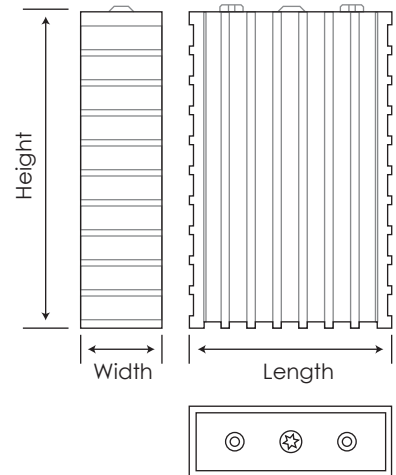
FLUX P/N	DESCRIPTION: LiFePo4 Lithium Battery	Length (mm)	Width (mm)	Height (mm)	Weight (kg)	Volume (cm3)
BATVXLFP400AH	400 Ah 3.2 V Nominal	461.00	65.00	277.00	13.50	243,068
BATVXLFP300AH	300 Ah 3.2 V Nominal	362.00	55.50	290.00	9.60	154,512
BATVXLFP260AH	260 Ah 3.2 V Nominal	362.00	55.50	275.00	8.70	5,525
BATVXLFP200AH	200 Ah 3.2 V Nominal	ASK	ASK	ASK	ASK	ASK
BATVXLFP180AH	180 Ah 3.2 V Nominal	209.00	65.00	276.00	5.60	3,749
BATVXLFP160AH	160 Ah 3.2 V Nominal	209.00	65.00	276.00	5.40	3,749
BATVXLFP100AH	100 Ah 3.2 V Nominal	179.00	62.00	214.00	3.50	2,375
BATVXLFP90AH	90 Ah 3.2 V Nominal	141.00	61.00	215.00	2.30	1,849
BATVXLFP60AH	60 Ah 3.2 V Nominal	115.00	61.00	200.00	2.30	1,403
BATVXLFP40AH	40 Ah 3.2 V Nominal	116.00	46.00	181.00	1.50	966

U.S. Standard

FLUX P/N	DESCRIPTION: LiFePo4 Lithium Battery	Length (in)	Width (in)	Height (in)	Weight (lbs)	Bolt Size M(x)×1.25x(xx)
BATVXLFP400AH	400 Ah 3.2 V Nominal	18 1/7	2 5/9	11	29.7	M14
BATVXLFP300AH	300 Ah 3.2 V Nominal	14 1/4	2 1/5	11 3/7	21.1	M12
BATVXLFP260AH	260 Ah 3.2 V Nominal	14 1/4	2 1/5	10 5/6	19.1	M12
BATVXLFP200AH	200 Ah 3.2 V Nominal	ASK	ASK	ASK	ASK	ASK
BATVXLFP180AH	180 Ah 3.2 V Nominal	8 2/9	2 5/9	10 6/7	12.3	M8
BATVXLFP160AH	160 Ah 3.2 V Nominal	8 2/9	2 5/9	10 6/7	11.9	M8
BATVXLFP100AH	100 Ah 3.2 V Nominal	7	2 4/9	8 3/7	7.7	M8
BATVXLFP90AH	90 Ah 3.2 V Nominal	5 5/9	2 2/5	8 1/2	5.1	M8
BATVXLFP60AH	60 Ah 3.2 V Nominal	4 1/2	2 2/5	7 7/8	5.1	M6
BATVXLFP40AH	40 Ah 3.2 V Nominal	4 4/7	1 4/5	7 1/8	3.3	M6

Key Battery Specifications

Voltage	
Maximum (V)	3.9
Nominal (V)	3.2
Minimum (V)	2.5
Current	
Impulse (A) 1-2 sec	10 C
Peak (A) 10 sec	5 C
Max Continuous (A)	3 C
Cycle Life (Depth of Discharge)	
DOD 80%	≥3000
DOD 70%	≥5000
Operating Temperature (C)	-45° to +85°



Related Accessories

- 12 V Battery Module (12 V LiFePO4 Battery)
- Charger – Air Cooled
- Charger – Water Cooled
- Current Sensor
- BMS (battery management system)
- HDU (hand-held diagnostic unit)
- Fuel Gauge Digital
- Fuel Gauge Analog

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