

Lithium Iron Phosphate (LiFePO₄) Battery **SPLi12-45 (12.8V, 45Ah)**

E-number: 5233743

Features of LiFePO₄ Battery

- Longer Cycle Life: Offers up to 20 times longer cycle life and five times longer float/calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- Lighter Weight: About 40 % of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.
- **Higher Power:** Delivers twice the power of a lead acid battery, even high discharge rate, while maintaininghigh energy capacity.
- Wider Temperature Range: -20°C ~ 60°C
- Superior Safety: Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation.
- Increased Flexibility: Modular design enables deployment of up to four batteries in series and up to ten batteries in parallell.



Physical Dimension





Application

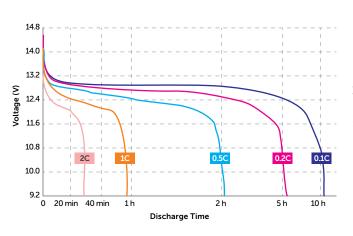
- Electric vehicles, electric mobility
- Solar/wind energy storage system
- UPS, backup power
- Telecommunication
- Medical equipment
- Lighting

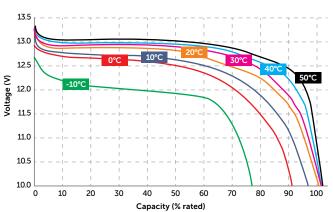
Specification

Electrical Characteristics	Nominal Voltage	12.8 V
	Nominal Capacity	45 Ah (C _{5′} 25°C)
	Energy	576 Wh
	Internal Resistance	≤ 30 mΩ
	Cycle Life	> 2000 cycles @ 1C 100 % DOD
	Months Self Discharge	< 3 %
	Efficienccy of Charge	100 % @ 0.5 C
	Efficiency of Discharge	96~99 % @ 1 C
Standard Charge	Charge Voltage	14.6 ± 0.2 V
	Charge Mode	0.2 C to 14.6 V, charge current to 0.02 C (CC/CV)
	Charger Current	40 A
	Max. Charge Current	70 A
	Charge Cut-off Voltage	15.6 V <u>+</u> 0.2 V
Standard Discharge	Continuous Current	70 A
	Max. Pulse Current	80 A (<3s)
	Discharge Cut-off Voltage	8 V
Environmental	Charge Temperature	0°C to 45°C (32 F to 113 F) @60 \pm 25% Relative Humidity
	Discharge Temperature	-20°C to 60°C (-4 F to 140 F) @ 60 \pm 25 % Relative Humidity
	Storage Temperature	0°C to 40°C (32 F to 104 F) @ 60 \pm 25 % Relative Humidity
	Water Dust Resistance	IP56
Mechanical	Cell & Method	26650 4S15P
	Plastic Case	ABS
	Dimensions (in/mm)	197 x 165 x 170 mm (7.76 x 6.50 x 6.69 in)
	Weight (lbs/kg)	7.52 kg (16.579 lbs)
	Terminal	M6

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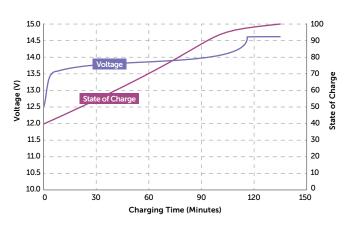
Different Temperature Discharge Curve @ 0.5C

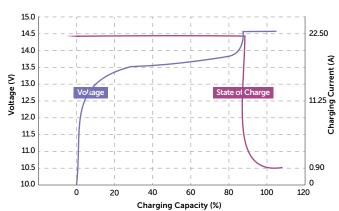




State of Charge Curve @ 0.5C 25°C

Charging Characteristics @ 0.5C 25°C





Cycle Life Curve

Self Discharge Characteristics Curve



Different Temperature Self Discharge Curve

