

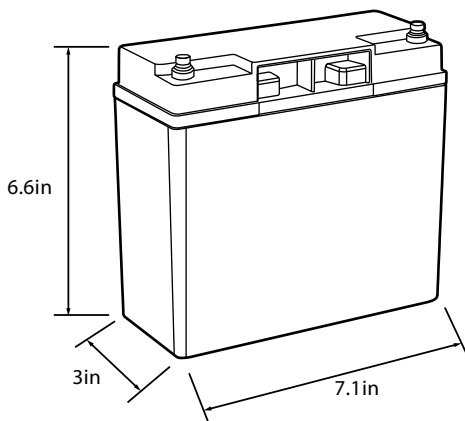
Overview

The ExpertPower LiFePO4 12v20Ah rechargeable battery is optimized for low rate applications which require high energy density.

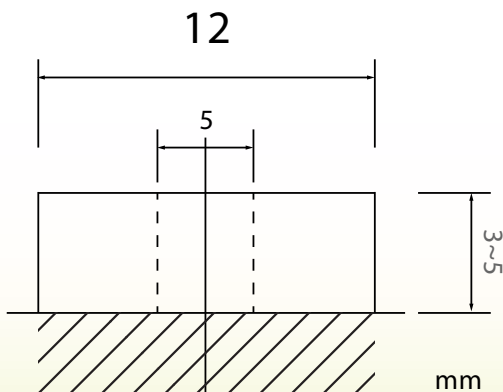
Features

- High energy density
- Automatic protection with internal battery management system
- Low self-discharge rate
- Long cycle life
- Excellent performance in all operating temperatures

Battery Dimensions:

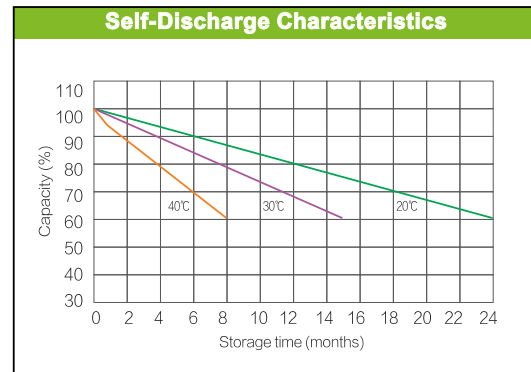
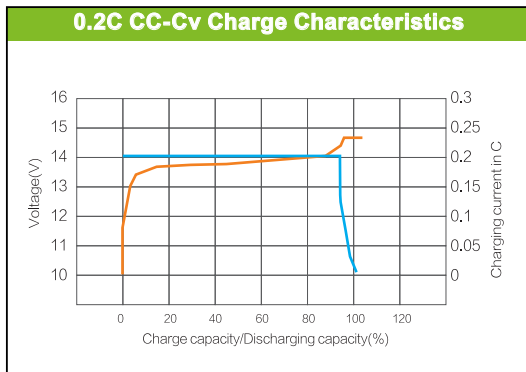
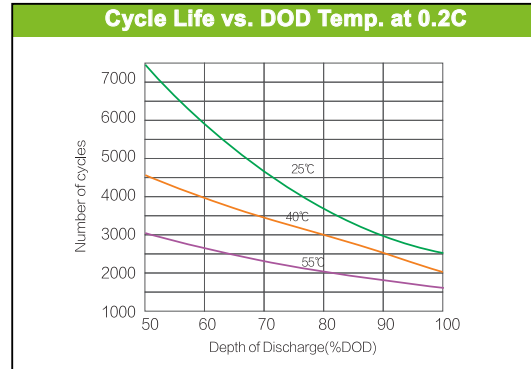
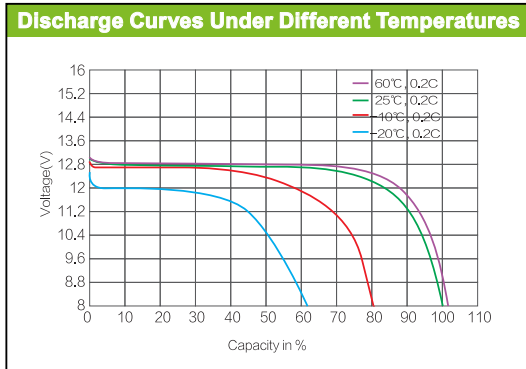


Terminal Dimensions:



Battery Specifications:

Nominal Characteristics	
Nominal Voltage /V	12.8V
Nominal Capacity /Ah (25°C , 0.2C)	≥ 20Ah
Mechanical Characteristics	
Weight	5.8 lbs
Dimensions L×W×H	7.1 x 3 x 6.6 in
Terminal	F13/ M5
Electrical Characteristics	
Voltage Window	9.2 – 14.6V
Charge Voltage	14.4V
Standby Voltage	13.8V
Max. Continue Discharge Current	30A
Max. Permanent Discharge Current	80A 10Sec.
Max. Continue Charge Current	10A
Operation Conditions	
Cycle Life (+20°C 0.2C 100%DOD)	>2500 Cycles
Operating Temperature	Discharge: - 4 – 140°F Charge: 32 – 140°F
Storage Temperature	32 – 86°F
Storage Duration	12 Months at 77°F
Safety Standard	UI1642 at cell level



BMS - Battery Management System:

Protection		Protection Condition		Recovery
Current	Charging	< 40A	Temperature Protection	a. Discharge > 2A or b. 45 ± 10S or c. < 140°F and > 32°F or d. Charge Current < 20A
		40 ~ 60A	Delay 15 ± 2S	
		≥ 60A	Delay 3 ± 1S	
	Discharging	< 45A	Temperature Protection	
		45 ~ 80A	Delay 15 ± 2S	
		80 ~ 133A	Delay 3 ± 1S	
		133 ~ 350A	Delay 100 ± 50mS	
	≥ 350A	Delay 2 ~ 3mS		
Voltage	Charging	Battery	≥ 14.8V, Delay 1 ~ 2S	a. ≤ 14.0V or b. Discharge > 2A a. ≤ 3.5V or b. Discharge > 2A a. ≥ 12.0V or b. Charge > 2A a. ≥ 3.0V or b. Charge > 2A
		Single Cell	≥ 3.8V, Delay 1 ~ 2S	
	Discharging	Battery	≤ 9.6V, Delay 1 ~ 2S	
		Single Cell	≤ 2.3V, Delay 1 ~ 2S	
Temperature	Battery	# of Sesnsor(s)	Charging: ≥ 149°F or < 23°F	< 140°F > 32°F
		1	Discharging: ≥ 149°F or < - 13°F	< 140°F and > 5°F
	BMS	# of Sesnsor(s)	≥ 176°F	≤ 149°F
		1		