

# Sonikcell

## Rechargeable Battery

Specification of 3.2V10Ah LiFePO4 battery			
Item		Parameter	Remark
Typical Capacity		10Ah@ 1C discharge	Discharge current 1C with 2.0V cut off.
Minimum Capacity		10 Ah@ 0.2 C	≥10Ah
Typical voltage		3.2V	
Weight		288g±12g	
Impedence		≤3mΩ	Less Than 3mΩ
Charge current (CC-CV)	Suggestion continue charge current	≤1C(10A)	0°C~45°C, Suggest the max charge current less than 1C. To Achieve the max. Service life. 0.2C (CC) to 3.65V, At 3.65V (CV) until the current ≤0.02C, then stop charge. (P.S: Large continue charge rate will reduction of the service life of the cell. Considering the high rate will lead to temperature rising, we are not suggest the battery pack work on high charge rate continue long time.)
	Max charge current	≤5C(50A)	
	Cut off voltage	3.65V	
Discharge	Max. continue discharge current	≤20C(200A)	- 20°C~60°C suggest the max. charge current less than 1C. To Achieve the max. Service life. 0.2C (CC) to 2.0V, stop discharge. (P.S: Large continue discharge rate will reduction of the service life of the cell. Considering the high rate will lead to temperature rising, we are not suggest the battery pack work on high discharge rate continue long time.)
	Max discharge current(short time)	≤30C(300A)	
	Cut off voltage	2.0V	
Charging time	Standard	5h	Preference value
	Quick-charge	0.5h	
Recommend SOC window		SOC : 10%~90%	Suggest DOD 90%
Charging temperature		0°C~45°C	During charge , ambient temperature should not exceed 45°C.
Discharging temperature		-20°C~60°C	Battery can work at specified temperature range with capacity loss in tolerance.
Storage temperature	One month	0°C~45°C	
	One year	0°C~35°C	
Storage humidity		< 70%	



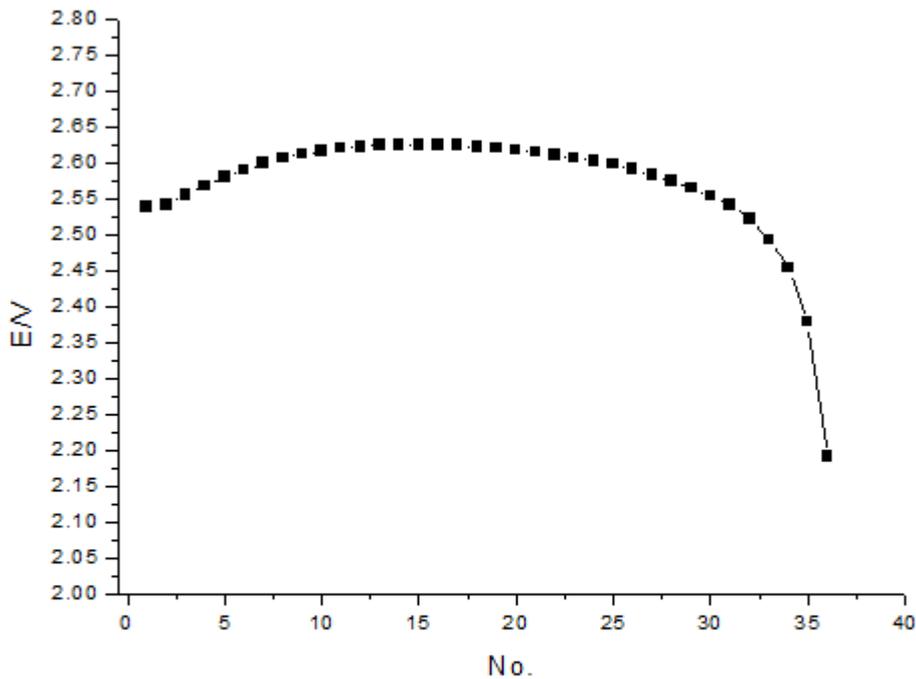
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### 38120 cell peak discharge test curve:

38120 cell peak discharge test as below.↵

Continue 20C peak discharge current test. (20C, 5secs/time)↵



25°C, 1C (10A) CC charge the battery upto 3.65V, 3.65V CV stoped the charge once the current down to 0.05C (50mA), stay 5mins, ↵

Start the test, 20C (200A) discharge continue 5seconds, stop it, and stay 30seconds, again the test, 20C (200A) discharge continue 5seconds, again and again the test, until the voltage down to 2.0V.↵

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3.2V10Ah cell testing curve (Cycle testing 3500 times based on 1C charge & discharge, 100%DOD/time, capacity retention  $\geq 80\%$ .)

