

JYF48050 LiFePO₄ Battery

ELECTRICAL PERFORMANCE

Nominal Voltage	51.2V
Nominal Capacity	50Ah
Capacity @ 7 0 A	40min
Energy	2560Wh
Resistance	≤20mΩ @ 50% SOC
Self Discharge	<3% / Month
Cells	Square aluminum shell

CHARGE PERFORMANCE

Recommended Charge Current	10A
Maximum Charge Current	≤50A
Recommended Charge Voltage	57.6V
BMS Charge Cut-Off Voltage	<58.4V (3.65V/Cell)
Reconnect Voltage	>56.8V (3.55V/Cell)
Balancing Voltage	<56.4V (3.525V/Cell)
Maximum Batteries in Series	16

DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	20A
Peak Discharge Current	≤50A(≤5S)
BMS Discharge Cut-Off Current	75A ±10A (50-150ms)
Recommended Low Voltage Disconnect	36.8V (2.3V/Cell)
BMS Discharge Cut-Off Voltage	>36.8V (2s) (2.3V/Cell)
Reconnect Voltage	>43.2V (2.7V/Cell)
Short Circuit Protection	450 ~ 800 μs



MECHANICAL PERFORMANCE

Dimension L x W x Hx HT	510 x 250 x 220x 230mm
Approx. Weight	(25kg)
Case Material	ABS
Enclosure Protection	IP65

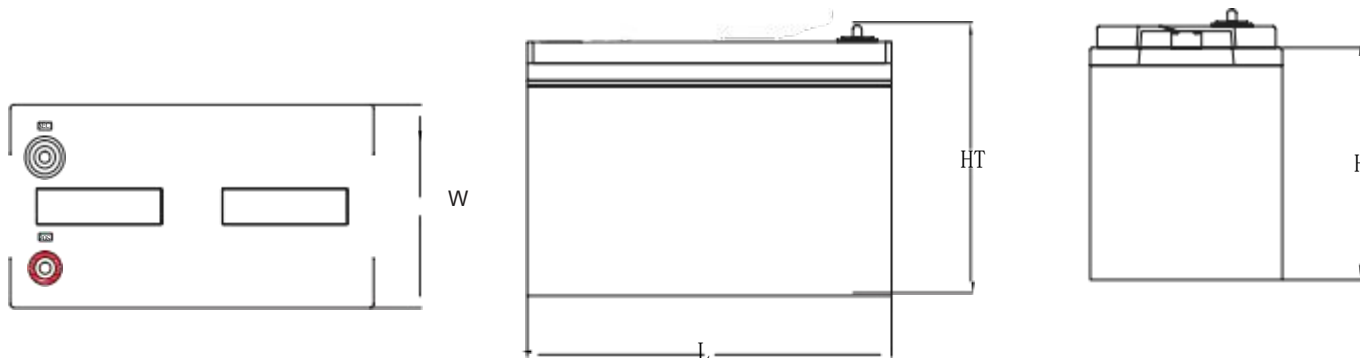
TEMPERATURE PERFORMANCE

Discharge Temperature	-40~ 131 °F (-40 ~ 55 °C)
Charge Temperature	-40~ 113 °F (-40~ 45 °C)
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)
BMS High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	131 °F (55 °C)

COMPLIANCE

Certifications	CE (battery) UN38.3 (battery) UL1642 & IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9

OUTLINE DIMENSION



L (mm)	W (mm)	H (mm)	HT (mm)
510	250	220	230

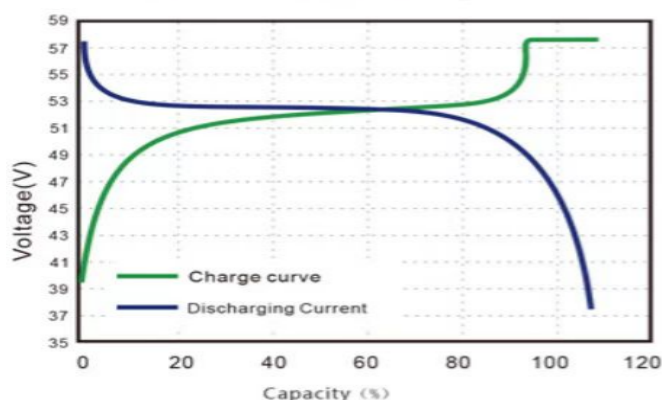
Performance may vary depending on application. All specifications are subject to change without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.



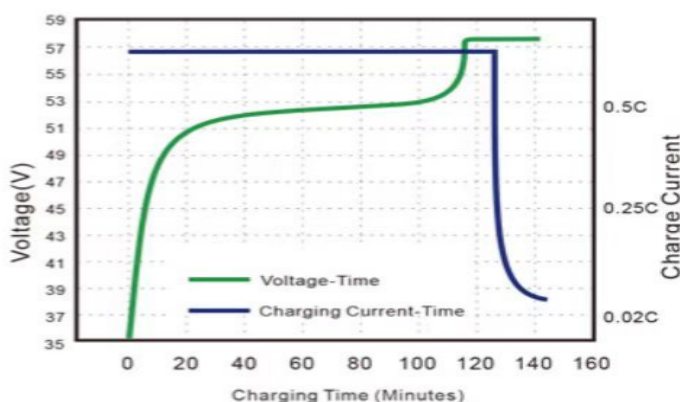
PERFORMANCE CHARACTERISTICS

Charging and Discharge curve

● Charge and discharge curve @0.5C 25°C

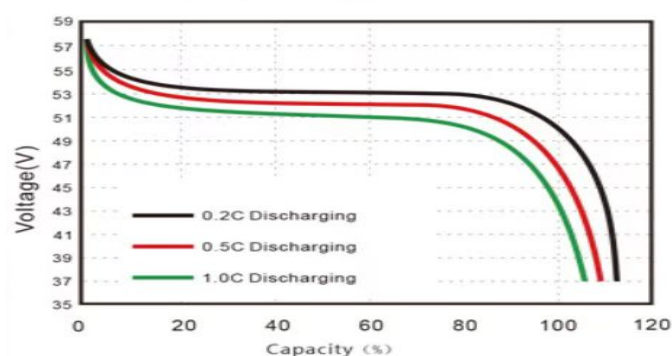


● Charging Characteristics @0.5C 25°C

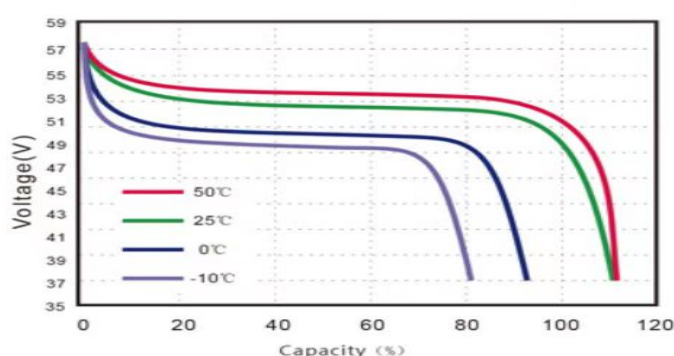


Different current/Temperature Discharge curves

● Different Rate Discharge Curve @25°C



● Different Temperature Discharge Curve @0.5C



FEATURES & BENEFITS



High cycle life

>2000 cycles for effectively lower total cost of ownership.



Longer service life

Low maintenance batteries with stable chemistry.



Built in circuit protection

Battery Management System (BMS) is incorporated against abuse.



Better storage

up to 6 months thanks to its extremely low self discharge (LSD) rate and no risk of sulphation.



Quickly recharge

Save time and increase productivity with less down time thanks to superior charge/discharge efficiency.



Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to +60°C.



Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent.

APPLICATIONS

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries.

Suitable applications include:

- Caravan
- Marine
- Golf Car
- Buggies
- Solar Storage
- Remote Monitoring
- Switching applications and more
- Battery display function
- Bluetooth monitoring function

CAUTIONS

- Do NOT short circuit, reverse polarity, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 30~50% SOC. Recharging every 3 months is recommended. The storage area should be clean, cool, dry and ventilated.

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