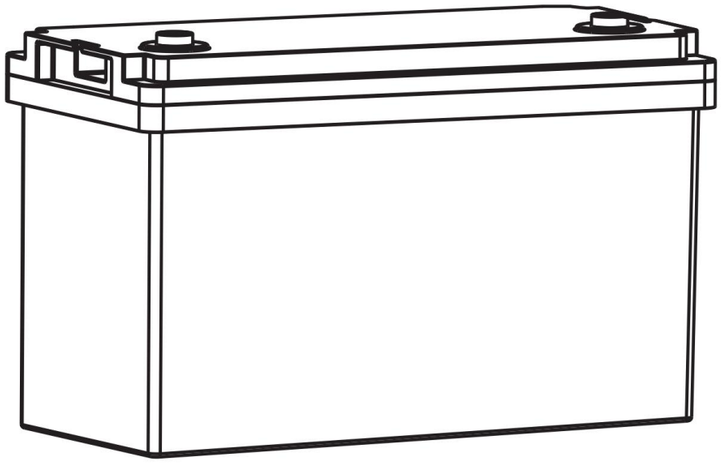
LiFePO4

LITHIUM IRON PHOSPHATE



This user manual offers a brief walkthrough of the unit's featuresPlease keep the user manual in hand for future reference.Still need help? Feel free to send us an email at Manager@xdatou.com.

User Guide》

IMPORTANT SAFETYINSTRUCTIONS

- Please read through all the labels on the battery and this user guide before the first use.
- When connecting batteries in series or parallel, read all the precautions about how to connect first, or you may damage the batteries.
- Keep the battery away from rain, splashes, and any wet locations.
- DO NOT short circuit the battery.
- DO NOT reverse polarity connection.
- DO NOT expose the battery to fire, heat sources, or direct sunlight.
- DO NOT dismantle or modify the battery yourself.
- DO NOT drop, crush, shake, strike, or penetrate the battery.
- Please use the specified charger to charge batteries.
- Our batteries are assembled using waterproof glue.
  If you want to disassemble the batteries yourself, please ask the customer service team for directions on how to disassemble the batteries. But keep in mind that once the battery is disassembled, it cannot be restored to its original state of being.

SPECIFICATIONS

Model	12V100Ah	12V200Ah	12V300Ah	24V100Ah	48V100Ah
Capacity	1280Wh	2560Wh	3840Wh	2560Wh	5120Wh
Charging Voltage	14.4±0.2v	14.4±0.2v	14.4±0.2v	28.2±0.4v	57.6±0.8v
Charge Current	Max50A	Max100A	Max100A	Max50A	Max50A
Rated discharge current	100A	200A	200A	100A	100A
Maximum Discharge Current	120A	240A	240A	120A	120A
Charging Temperature	32℉ ~113℉ / 0℃~45℃				
Discharge temperature	14℉ ~140℉ / -10℃~60℃				
Low temperature protection	Charging : 14℉ ~32℉ / -5℃±5℃				
	Discharging : -13℉ ~5℉ / -20℃±5℃				
High temperature protection	Charging : 140℉ ~158℉ / 65℃±5℃				
	Discharging : 158℉ ~176℉ / 75℃±5℃				
Storage temperature range	-4℉ ~113℉ / -20℃~45℃ (Store for 1-3 months)				
	-4℉ ~68℉ / -20℃~20℃ (Store for 1 year)				
Discharge depth	≥80%				
Series and parallel connection	4P4S				
Battery Management	BMS				
Shell material	ABS				
Terminal Material	Brass				
Terminal Conductivity	≥98%				

Controller Setting (for reference)					
System voltage	12.0V(x N)*	12.0V(x N)*	12.0V(x N)*	24.0V(x N)*	48.0V(x N)*
Boost charge voltage	14.2V(x N)*	14.2V(x N)*	14.2V(x N)*	28.4V(x N)*	56.8V(x N)*
Over-discharge recover voltage	12.6V(x N)*	12.6V(x N)*	12.6V(x N)*	25.2V(x N)*	50.4V(x N)*
Over-discharge voltage	11.1V(x N)*	11.1V(x N)*	11.1V(x N)*	22.2V(x N)*	44.4V(x N)*

Note:
(xN)* : When it comes to a 24V(N=2)or 48V(N=4)system, the voltage shouldmultiply by the number of series batteries.

* When the battery is fully discharged at a continuous, it cannot be recharged at half immediately, which will trigger high temperature chargingprotection.

TIPS FOR BETTER PERFORMANCE

How to Connect Battery

1.Please make sure all batteries that are connected meet the following criteria:

- Batteries have the Same Voltage (V), Same Capacity (Ah), and are the Same Type (Lithium iron phosphate (LiFePO4)).
- As the built-in battery management system (BMS) may vary between brands, we advise you to choose batteries from the Same Brand forconnection.

2.For optimal performance, we kindly advise you to follow the requirementslisted below:

- Fully charge all ready-to-connect batteries.

- All battery interconnect cables should be the same wire gauge (AWG) and length, and come from the same brand. Otherwise, the impedance will be inconsistent, resulting in unbalanced charge and discharge perfor-mance.
- Connect your batteries one by one in series (up to 4 batteries) or in parallel (up to 4 batteries). Secure all cable connections between the cablelugs and terminals.

3.When determining the cable size (AWG) for your system, there are two factors to consider:

- The size of the electrical load you want to power.
- The distance between the electrical load and your batteries.

For reference, see the following chart:

—Cables for Controller to Battery

Solar Input Current	5A	10A	20A	30A	40A	60A
Wire Cross Section Area (mm^2)	1.5	2.5	5	8	10	12
Wire AWG	15	13	10	8	7	6

—Cables for Inverter to Battery

Cable Size	Copper Conductor Diameter (inches)	Maximum Amperage
6 AWG	0.20	115
4 AWG	0.23	150
2 AWG	0.30	205
1/0 AWG	0.37	285
2/0 AWG	0.43	325
4/0 AWG	0.56	440

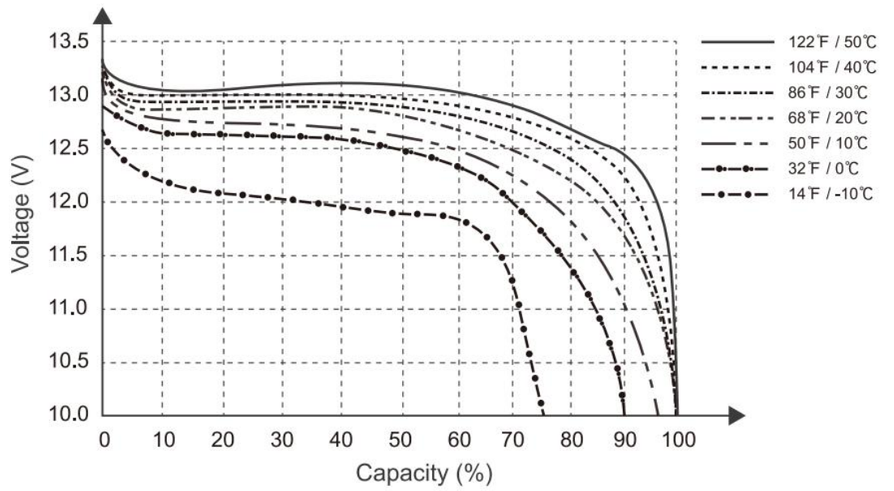
About Rated Power

- AS. When connecting 2 batteries in parallel, the theoretical max. power is 1280Wx2=2560W.But this does not mean this battery bank can support all 2000W home appliances working normally via a 2000Winverter.
- The peak power of an AC motor appliance, such as an AC air conditioneror water pump, is double its rated power. For example, when using a1500W AC air conditioner or water pump, it requires 2x1500W=3000Wof the battery bank and inverter to support normal working conditions.
- But please note that the peak power of some home appliances is 3 timesthe rated power. So you can consult the manufacturer for accurate peakpower data.

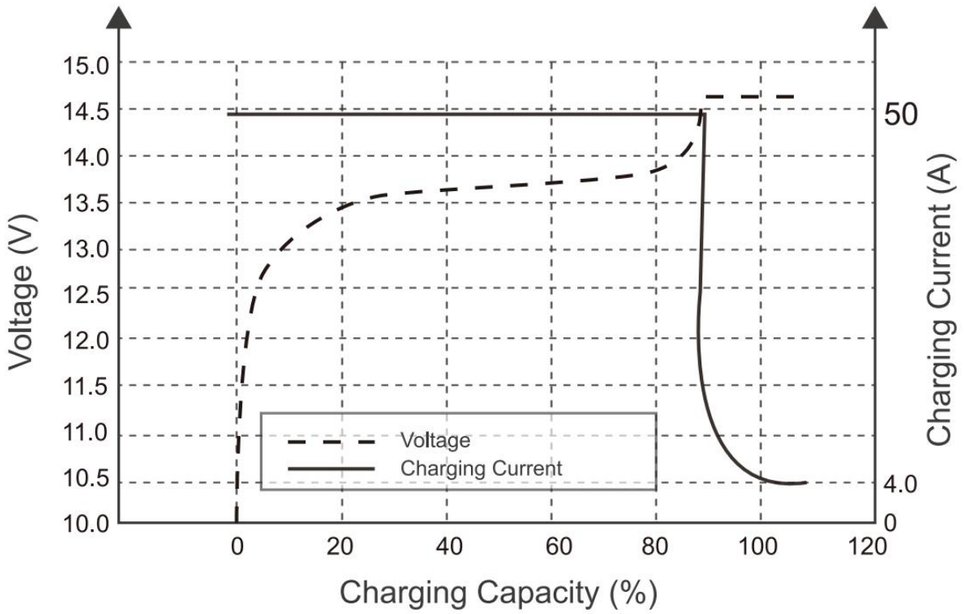
How to Store Battery

- To store your battery, keep it at least 30%-50% charged. We recommendthat you charge the battery every 6 months when not in use to preventoverdischarge.

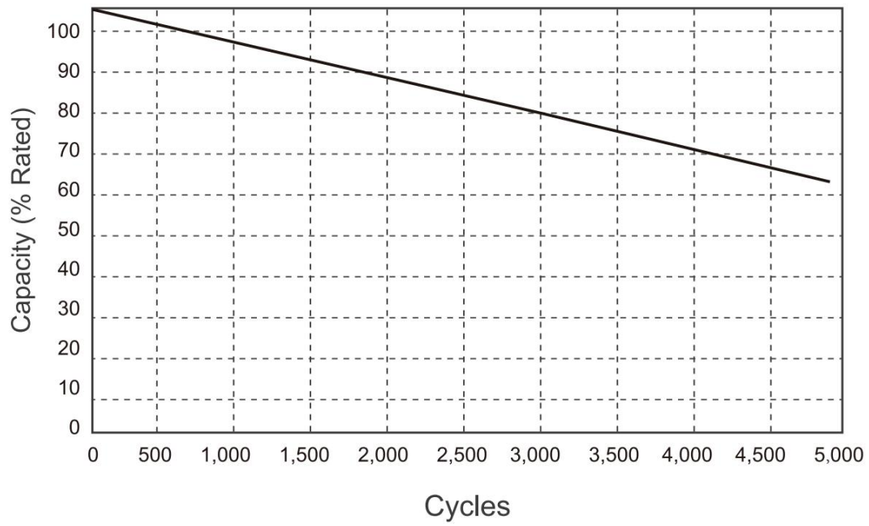
DISCHARGE CURVE AT DIFFERENT TEMPERATURES (0.5C)



CHARGING PERFORMANCE(0.5C,77°F/25°C)



CYCLE LIFE VERSUS DEPTH OF DISCHARGE (0.5C, 77°F/25°C)



Note: The above three charts are based on the example of 12V100AH, and other models can be calculated proportionally for reference.

WARRANTY

- LiFePO4 batteries are covered by a 3-year limited warranty from the original purchase date. If you encounter any issues during usage, feel free to contact us at www.xdatou.com

- We only provide after-sales service for products sold by us or retailers and distributors authorized by us. If you have purchased your unit through other channels, please contact your seller for more information about the return and warranty.

SUPPORT INFORMATION

- Email: Manager@xdatou.com
- The website: www.xdatou.com
- Phone/Wechat/Whatsapp/LINE: +8613783531376