DF-UPS-3000W(3200Wh)LiFePO4
Mobile Portable Power Pack User Manual

Catalog

NO.	Item		Requirements	Remarks
1	Battery type		LiFePO4 64V 50Ah	battery brand- Guoxuan High-tech
2	Battery series parallel mode		20C 20series	
3	Inverter		3000W High frequency sine wave	
4	DC output voltage		DC5V DC12V-DC60V Customizable	
5	AC output voltage		AC220V	
6	Output power		3200Wh	
7	Overheat protection		60°C	
8	Charge protection		Yes	
9	Charging input voltage		DC72V	
10	Maximum DC charging current		10A	
11	Output Frequency		50Hz/60Hz	
12	Nominal capacity		3200Wh 64V 50Ah	Standard charge and discharge
13	Outside size	Length	61cm	
		Width	47cm	
		Thickness	30cm	
14	Standard charging method		Constant current and constant voltage	Inverter power supply with its own charging circuit
15	Maximum charging current		50A	1C
16	Standard charging current		10A	0.2C
17	Standard discharge		50	1C
18	Discharge cut-off voltage		50V	
19	Maximum continuous discharge current		50A	1C
20	Working temperature	charge	0-45℃	
		discharge	-10-55℃	
21	Weight		35±3 KG	
22	Storage temperature	1 month	-10℃-55℃	
		3 month	-10℃-45℃	
		1 Year	-10℃-25℃	
23	Shipping Voltage		More than 60V	
24	Cycle life		0.5C charge, 1C discharge under the number of times ≥ 2000 times	After the capacity to maintain 60%
25	Temperature protection function		With temperature protection function	Yes

1. Applications

Power supply, charging and storage are all in one mobile portable power pack device. And at the same time to charge cell phones and other digital devices at any time or standby power. Lithium iron phosphate battery as a storage battery, with a large capacity, no memory, long life, environmental protection, pollution-free, safe and reliable features, can be anywhere, anytime for cell phones, digital cameras, drones, desktop computers, laptop computers, home appliances and other power equipment power supply or standby charging.

Battery pack basic parameters

2.2 Definition of electrical terms

2.2.1 Fully charged

The battery pack is continuously charged with a charging voltage of 60.0V and a current of 0.2C. When the charging current drops to 0.01C, charging is terminated and the pack is fully charged.

2.2.2 Discharge

The discharge current is 0.2C for continuous discharge, and the discharge is terminated when the voltage drops to the cut-off voltage of 40V.

2.2.3 Standard charge

Under the condition of 25±5℃, charge at a constant current of 0.2C to 58V, then enter the constant voltage charging mode, and stop when the charging current is less than or equal to 0.01C.

2. Inverter power performance requirements：

Item	Description
4.0 AC charging voltage	AC200-240V/50Hz
4.1 AC/Charging Current	10A
4.2 Input Voltage	AC200-240V/50Hz
4.3 Output Voltage	AC220V//50Hz
4.4 Output current	10A
4.5 Instantaneous peak power	4000W
4.6 Continuous power	3000W
4.7 Outer case material	Army green PC+ABS
4.8 Noise	<45dB
4.9 Dimension	61*47*30cm
5.0 Optimal working environment temperature	<45℃

3. Safety performance requirements

Note: Safety performance testing needs to be conducted without battery protection wiring installed.

NO.	Item	Standard	Test Method
1	Overcharge performance	Battery does not catch fire, does not explode, does not smoke (carried out in special protection devices)	After standard charging of the battery, measure the initial state of the battery to ensure that the battery state is normal (same below), charge to 72-75V with 1C current, then turn to constant voltage charging to terminate when the cut-off current is 0.01C, and observe the temperature and appearance changes of the battery.
2	Over-discharge test	Battery does not catch fire, does not explode, does not smoke	After discharging to the cut-off voltage, an external load resistor of less than 30Ω is discharged for 24 hours.

3	Short Circuit	Battery does not catch fire, does not explode, does not smoke (carried out in special protection devices)	After standard charging, the battery connected to the thermocouple is placed in the fume hood, short-circuiting its positive and negative terminals, the total resistance of the line is not greater than 100mΩ, and tested for 1 hour.

4. BMS Electrical performance requirements

No.	Item		Requirements
1	Overcharge protection	Overcharge detection voltage	3.65±0.05V（Single section）
2		Overcharge detection delay	1.0s~1.5s
3		Overcharge release voltage	3.65V±0.05V（Single section）
4	Over-discharge protection	Over-discharge detection voltage	2.0-2.5V（Single section）
5		Overcharge detection delay	1±0.05s
6		Overcharge release voltage	2.0±0.1V（single section）
7	Overcurrent protection	Overcurrent protection current	100±5A
8		Overcurrent protection delay	60±10ms
9		Overcurrent protection release conditions	Disconnecting the load
10	Short circuit protection	Short circuit protection current	50-100A
11		Short circuit protection delay	100-200us
12		Short circuit protection release conditions	External current less than 10uA

5. Mobile portable power pack panel identification