

High Power
SUPPLY
ENERGY
STORAGE
Power Supply

Industrial-Grade Technology Pioneer,
Redefining Industry Standards

3KW/6KW



Application

The specification is applicable to basic performance, technical requirement, testing method, warning and caution of the Lithium ion(LiFePO4) rechargeable battery

Hardware and Terminal Specification

Cell Model

- ➔ Cell structure: Prismatic cell with metal cell coverage.
- ➔ The connection between the terminals of the battery cells by metal terminals using bolt.
- ➔ Uniformity between battery cells in 1 battery Cells must be identical in structure, similar in size and weight.
- ➔ At the time the battery is fully charged, the voltage difference between the cell with the highest and lowest voltage is not more than 0.05V.



MPS3 (3kw) / MPS6 (6kw) Battery Pack Specification

Features	Parameters		Remarks
	3kw	6kw	
Rated Capacity	60Ah	120Ah	
Rated Voltage	51.2V		
Rating	IP54		
Rated Energy	3072Wh	6000Wh	
Energy Density	160Wh/kg		
Maximum Charging Voltage	43V		
Minimum Discharge Voltage	58.4V		
Standard Charging Current	30A		
Standard Discharging Current	60A		
Maximum Continuous Charging Current	60A		Environmental Temperature $\leq 35^{\circ}\text{C}$
Maximum Continuous Discharging Current	120A		Environmental Temperature $\leq 35^{\circ}\text{C}$
Cycle Life	1800 Cycles		@0.5C Room Temperature
Weight (Approx.)	~47 Kgs	~60 Kgs	
Cooling	Forced Air Cool		
Operating Temperature	Charge $0^{\circ}\text{C} - 45^{\circ}\text{C}$		
	Discharge $-10^{\circ}\text{C} - 60^{\circ}\text{C}$		
Storage Temperature	$-20\sim 45^{\circ}\text{C}$		≤ 1 months
	$-20\sim 35^{\circ}\text{C}$		≤ 3 months
	$-20\sim 25^{\circ}\text{C}$		≤ 12 months

BMS specification

SI.No	Content		Parameters		Unit	Remarks
			MPS3	MPS6		
1	Discharge	Continuous Discharge Current	100	200	A	
2	Charging	Charging Voltage	58.4		V	
		Continuous Charge Current	50		A	Adjustable
3	Over Charge Protection	Cell Over Charge Detection Voltage	3.65±0.05		V	
4		Overall Overcharge Protection Release Voltage	3.55		V	
5	Over Discharge Protection	Cell Over Discharge Detection Voltage	2.2±0.05		V	
6		Overall Over Discharge Release Protection Voltage	45		V	
7	Over Current Protection	Discharge Current Level 1 Alarm Current	100±3%		A	Adjustable
		Discharge Current Level 2 Protection Current	125±3%		A	
		Charge Over Current Protection	100±3%		A	
8	Short Circuit Protection	Short Circuit Protection Condition	External Load Short Circuit			
		Short Circuit Protection Delay	200~500µS			
		Short Circuit Protection Release	Removing the Load is Lifted			
		Charging High Temperature Protection	63		°C	
9	Temperature Protection	Charging Low Temperature Protection	0		°C	
		Discharging High Temperature	68		°C	
		Discharge Low Temperature	-20		°C	
		Temperature Sensor	2		Optional up to 4	
		Sleep Current	300µA			

Inverter Specification

	MPS3	MPS6
Rated Power	3000W	5000W
Peak Power	6000W	10,000W
Input Voltage	48VDC	
Output Voltage	100VAC or 110VAC or 120VAC or 220VAC or 230VAC or 240VAC $\pm 5\%$	
Protection Parameter		
Low Voltage	Alarm at First, Voltage Continuously Reduce, LED Red Light On & Shot Down	
Over Voltage	LED Red Light On, Shut Down	
Over Load	LED Red Light On, Shut Down	
Over Temperature	Alarm at First, Temperature Continuously Rise, LED Red Light On & Shot Down	
Short Circuit	LED Red Light On	
Input Reverse Polarity	Fuse Burn-Out	

Charger Specifications

SI. No	Items	Specifications	
		MPS3	MPS6
1	Cell Chemistry	LiFePO4	
2	Charging Voltage (V)	58.4	
3	Charging Current (A)	15	30
4	Full Charge (0-100%)	~4Hrs	
5	Charging LED Indication (Green)	4 LEDs Blinking (30%, 50%, 80%, 100%)	
6	Fault LED Indication (Red)	1 LED Blinking	
7	Charging Completed (Green)	4 LEDs Constant Glowing	

Cell Specification

SI.No	Items	Specifications		Test Tools
		MPS3	MPS6	
1	Maximum Charge Voltage	3.65±0.05V		Digital Multi Meter
2	Minimum Discharge Voltage	2.5±0.05V		Digital Multi Meter
3	Initial Capacity	Nominal Capacity 0.5C		Secondary Batteries Testing Equipment
4	AC Impedance	≤20mΩ		Impedance Test Equipment
5	Charging Standard	0.5C Maximum Charging Voltage		Secondary Batteries Testing Equipment
6	Charging Time	Standard: 2.4 Hours		Secondary Batteries Testing Equipment
7	Discharge Standard	0.5C Discharge		Secondary Batteries Testing Equipment
8	Cell Dimension (L*H)	34 x 207mm	130.3 x 195.5mm	Vernier Caliper

Storage and Transportation

Items		Requirement
Storage Temperature	≤1 month	-20 ~ 45°C
	≤ 3 months	-20 ~ 35°C
Humidity		<70%RH
Storage SOC		60% - 75% SOC

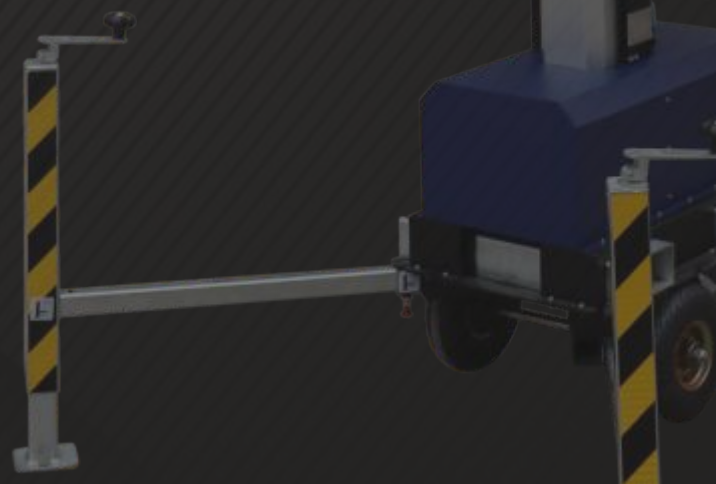
Prohibition

For avoiding battery leakage, heat radiating, explosion, below prevent tips should be taken care of:

- Prohibition of disassembly or re-assembly
- Prohibition to short circuit battery
- Prohibition to use near hot source
- Prohibition of dumping of battery into water, ocean or getting battery wet
- Prohibition of charging near fire or under sunlight
- Charge with specified charge according to charging requirement
- Prohibition of inserting nail into battery, hammering or stepping on foot
- Prohibition of throwing
- Prohibition to use with damaged or deformed battery

Attention

- Prohibition of using battery in sunlight, otherwise will cause over hot, firing, or function failure, life reducing
- Prohibit use near static place which over 110V
- Prohibit charge at temperature below 0°C or above 60°C
- When use at first time, it has corrosion, or bad smell, or any other abnormal, please do not use



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