

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(LiFePO<sub>4</sub>) 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	$-20\sim 45^{\circ}\text{C}$		$\leq 1$ months
	$-20\sim 35^{\circ}\text{C}$		$\leq 3$ months
	$-20\sim 25^{\circ}\text{C}$		$\leq 12$ 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 $\pm 5\%$	
<b>Protection Parameter</b>		
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



# ABOUT MTANDT

## *For The Ones Who Get it Done*

Since 1974, we've been the partner you can count on. Founded by the **Late Sri Rajkumar Modi**, Mtandt Group was born with a simple goal: to make your work safer, more efficient, and more convenient - whether you're Building, Maintaining, Repairing, or Operating Facilities and Infrastructure.

Our team brings together expertise in **Manufacturing, Sales, Rentals, Training, and Services** to create solutions that actually work for your unique challenges. Our leaders have walked in your shoes and understand the real-world problems you face every day, which is why we're committed to providing support that's both strategic and practical.

Through our various **Business Units, Subsidiaries, and Joint Ventures**, we connect directly with you to solve problems.

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