

LITHIUM IRON PHOSPHATE BATTERY **M PRO Series**



Features

- Grade A+ Cells**
Manufactured using the premium quality, fresh LiFePO4 raw materials for top-tier performance.
- High Cycle Efficiency**
Up to 8000 Cycles @ DOD 80%, ensuring a cost-effective ownership experience.
- Advanced Touch Screen**
Multi-language colorful touch screen for clear monitoring of battery parameters, with easy control over settings.
- Extended Durability**
Enjoy a longer lifespan with our low-maintenance, stable chemistry batteries.
- Integrated Safety Measures**
Enhanced with a built-in Battery Management System (BMS) to prevent misuse.
- Heat Resilience Engineered for optimal**
Engineered for optimal performance, even in extreme temperatures up to +60°C.
- Superior Safety**
Designed with advanced safety features to guarantee secure usage and storage.

Smart BMS Compatible with multiple inverter brands.



MOTOMA®

Power into the Future



Introduction

The MOTOMA M PRO Series LFP battery is an advanced energy solution designed to deliver a service life of 15 years or more, providing exceptional performance for a wide range of applications. With a lifespan of up to 8000 cycles, it ensures reliable and efficient energy storage for many years.

Equipped with a multi-language and colored touch LCD screen, the M PRO Series allows users to monitor the battery status, access detailed reports, and fully control settings. Its intelligent BMS ensures safety, along with SOC design and a communication protocol compatible with various inverter brands.

Applications

- ◆ Power Generation System (Solar and Wind Power System, etc.)
- ◆ Household Energy Storage System
- ◆ Auto Control System & ATM Machine
- ◆ Electronic Apparatus and Equipment
- ◆ Emergency Light & Emergency Backup
- ◆ Power Supply & Alarm / Security System
- ◆ Communication Power & DC Power
- ◆ Electric Power System (EPS)
- ◆ Uninterruptible Power System (UPS)

Certificates



UN38.3
PASSED



Grade A+ Cells

8000

Up to 8000 Cycles
@ DOD 80%



Multi-language
colorful touch LCD screen

SOC

With State of Charge



Support high discharge
current up to 150 - 200 A



Max. 15 pcs batteries
in parallel



Technical Parameter

Battery Model	M68PW PRO	M69PW PRO	M87PW PRO	M88PW PRO	M90 PRO	M91 PRO
Nominal Capacity	25.6V	25.6V	51.2V	51.2V	51.2V	51.2V
Capacity	200Ah	280Ah	100Ah	200Ah	320Ah	400Ah
Nominal Capacity	5.12kWh	7.168kWh	5.12kWh	10.24kWh	16.384kWh	20.48kWh
Operating Voltage Range	21.6V~29.2V			43.2V~58.4V		
Maximum Charging Current	150A	150A	100A	150A	200A	200A
Maximum Discharging Current	150A	150A	100A	150A	200A	200A
Charging Temperature Range	0°C~45°C					
Discharging Temperature Range	-20°C~60°C					
Battery Dimensions (LxWxH)	420*610*200 mm	538*505*200 mm	420*608*200 mm	650*610*200 mm	990*505*200 mm	615*720*435 mm
Battery Weight (NW)	52.7 kg	68.3 kg	52.3 kg	92.4 kg	126.6 kg	184.2 kg
IP Level	IP20					
Cell Cycle Life (@ DOD 80%)	6000 Cycles	8000 Cycles	6000 Cycles		8000 Cycles	
Communication Mode	RS485 / CAN / RS232					
Test Condition	25±2°C,0.5C/0.5C,EOL 70%	25±2°C,0.3C/0.3C,EOL 70%	25±2°C,0.5C/0.5C,EOL 70%	25±2°C,0.5C/0.5C,EOL 70%	25±2°C,0.5C/0.5C,EOL 70%	25±2°C,0.3C/0.3C,EOL 70%

Charge Performance

Recommended Charge Current	30A	30A	30A	30A	30A	30A
Maximum Charge Current	150A	150A	100A	150A	200A	200A
Peak Charge Current	160A (1s)	160A (1s)	112A (3s)	160A (1s)	210A (1s)	210A (1s)
Recommended Charge Voltage	28.8V	28.8V	57.6V	57.6V	57.6V	57.6V
BMS Charge Cut-Off Voltage	29.2V (3.65V/Cell)	29.2V (3.65V/Cell)	58.4V (3.65V/Cell)	58.4V (3.65V/Cell)	58.4V (3.65V/Cell)	58.4V (3.65V/Cell)
Reconnect Voltage	27.04V (3.38V/Cell)	27.04V (3.38V/Cell)	54.08V (3.38V/Cell)	54.08V (3.38V/Cell)	54.08V (3.38V/Cell)	54.08V (3.38V/Cell)
Balancing Voltage	27.2V (3.4V/Cell)	27.2V (3.4V/Cell)	54.4V (3.4V/Cell)	54.4V (3.4V/Cell)	54.4V (3.4V/Cell)	54.4V (3.4V/Cell)
Balancing Current	40mA	40mA	40mA	40mA	40mA	40mA

Discharge Performance

Recommended Discharge Current	30A	30A				
Maximum Continuous Discharge Current	150A	150A	100A	150A	200A	200A
Peak Discharge Current	160A (10s)	160A (10s)	120A (10s)	160A (10s)	210A (10s)	210A (10s)
BMS Discharge Cut-Off Current	200A (500ms)	200A (500ms)	180A (500ms)	200A (500ms)	250A (500ms)	250A (500ms)
Recommended Low Voltage Disconnect	24V (3.0V/Cell)			48V (3.0V/Cell)		
BMS Discharge Cut-Off Voltage	21.6V (2.7V/Cell)			43.2V (2.7V/Cell)		
Reconnect Voltage	24.8V (3.1V/Cell)			49.6V (3.1V/Cell)		
Short Circuit Protection	250~500us					

Packaging

Packaging Type	6 Batteries / UN Wooden Box			1 Battery / UN Wooden Box		
Package Dimension (LxWxH)	1268x734x1092 mm			888x674x412 mm	1248x609x372 mm	808x519x883 mm
Package Weight (GW)	376 KG	498.9 KG	374 KG	120.9 KG	156.6 KG	224.2 KG



Technical Support for Lifetime



7 Years Warranty

MOTOMA®

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LITHIUM IRON PHOSPHATE BATTERY M Series



Introduction

MOTOMA M series LFP battery designed with 15 years or more service life for general purpose, which designed with advanced technology, built in intelligent BMS for more safe, with SOC design and communication protocol to match up with different brand inverters. Also motoma can supply customized upper computer software for BMS communication via RS232 to set parameters or read monitoring data.

Features

- Grade A+ Cells**
Manufactured using the premium quality , fresh LiFePO4 raw materials for top-tier performance.
- High Cycle Efficiency**
Up to 8000 Cycles @ DOD 80% , ensuring a cost-effective ownership experience.
- LED Screen For Battery's parameters monitoring**
Multi-language colorful screen for clear monitoring of battery parameters, with easy control over settings.
- Integrated Safety Measures**
Enhanced with a built-in Battery Management System (BMS) to prevent misuse.
- Heat Resilience Engineered for optimal**
Engineered for optimal performance, even in extreme temperatures up to +60°C.
- Superior Safety**
Designed with advanced safety features to guarantee secure usage and storage.

Applications

- ◆ Power Generation System (Solar and Wind Power System, etc.)
- ◆ Household Energy Storage System
- ◆ Auto Control System & ATM Machine
- ◆ Electronic Apparatus and Equipment
- ◆ Emergency Light & Emergency Backup
- ◆ Power Supply & Alarm / Security System
- ◆ Communication Power & DC Power
- ◆ Electric Power System (EPS)
- ◆ Uninterruptable Power System (UPS)

Smart BMS Compatible with multiple inverter brands.



Certificates



 Technical Support for Lifetime

 5 Years Warranty

MOTOMA®
Power into the Future

A⁺Grade A⁺ Cells

8000

Up to 8000 Cycles
@ DOD 80%LED Screen For Real
Time Monitoring

SOC

With State of Charge

Support high discharge
current up to 150AMax. 15 pcs batteries
in parallel

Technical Parameter

Battery Model	M90	M88PW	M84UE	M64UE
Nominal Capacity	51.2V	51.2V	51.2V	25.6V
Capacity	320Ah	200Ah	100Ah	200Ah
Nominal Capacity	16.384kWh	10.24kWh	5.12kWh	5.12kWh
Operating Voltage Range	43.2V~58.4V		43.6V~58.4V	21.6V~29.2V
Maximum Charging Current	200A	150A	100A	150A
Maximum Discharging Current	200A	150A	100A	150A
Charging Temperature Range	0°C~45°C			
Discharging Temperature Range	-20°C~60°C			
Battery Dimensions (LxWxH)	740*440*240 mm	720*610*160 mm	513*484*135 mm	508*484*135 mm
Battery Weight (NW)	120 kg	90 kg	43.18 kg	41.21 kg
IP Level	IP20			
Cell Cycle Life (@ DOD 80%)	8000 Cycles	6000 Cycles @ DOD 80%		
Communication Mode	RS485 / CAN / RS232			
Test Condition	25±2°C,0.3C/0.3C,EOL 70%	25±2°C,0.5C/0.5C,EOL 70%	25±2°C,0.2C/0.2C,EOL 70%	25±2°C,0.2C/0.2C,EOL 70%

Charge Performance

Recommended Charge Current	30A			
Maximum Charge Current	200A	150A	100A	150A
Peak Charge Current	210A (1s)	160A (1s)	112A (3s)	162A (3s)
Recommended Charge Voltage	57.6V	57.6V	57.6V	28.8V
BMS Charge Cut-Off Voltage	58.4V (3.65V/Cell)	>58.4V (3.65V/Cell)	58.4V (3.65V/Cell)	29.2V (3.65V/Cell)
Reconnect Voltage	54.08V (3.38V/Cell)	<57.6V (3.6V/Cell)	54.8V (3.38V/Cell)	27.04V (3.38V/Cell)
Balancing Voltage	54.4V (3.4V/Cell)	>54.08V (3.38V/Cell)	54.4V (3.4V/Cell)	27.2V (3.4V/Cell)
Balancing Current	40mA		100mA	

Discharge Performance

Recommended Discharge Current	30A			
Maximum Continuous Discharge Current	200A	150A	100A	150A
Peak Discharge Current	210A (10s)	160A (10s)	105A (30s)	155A (30s)
BMS Discharge Cut-Off Current	250A (500ms)	200A (500ms)	122A (3s)	172A (3s)
Recommended Low Voltage Disconnect	48V (3.0V/Cell)	48V (3.0V/Cell)	48V (3.0V/Cell)	24V (3.0V/Cell)
BMS Discharge Cut-Off Voltage	43.2V (1s) (2.7V/Cell)	43.2V (1s) (2.7V/Cell)	43.2V (1s)(2.7V/Cell)	21.6V (2.7V/Cell)
Reconnect Voltage	<49.6V (3.1V/Cell)	<49.6V (3.1V/Cell)	49.6V (3.1V/Cell)	24.8V (3.1V/Cell)
Short Circuit Protection	250~500us			

Packaging

Packaging Type	1 Batteries / UN Wooden Box	6 Batteries / UN Wooden Box	16 Battery / UN Wooden Box	
Package Dimension (LxWxH)	1248*609*372 mm	1268*734*1092 mm	1048*1148*1049 mm	
Package Weight (GW)	156.6KG	630KG	762.5 KG	770.6 KG