

# MOTOMA®

Power into the Future

320Ah  
51.2V

## LITHIUM IRON PHOSPHATE BATTERY M90

### Introduction

The MOTOMA M 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 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.

### 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.

### Applications

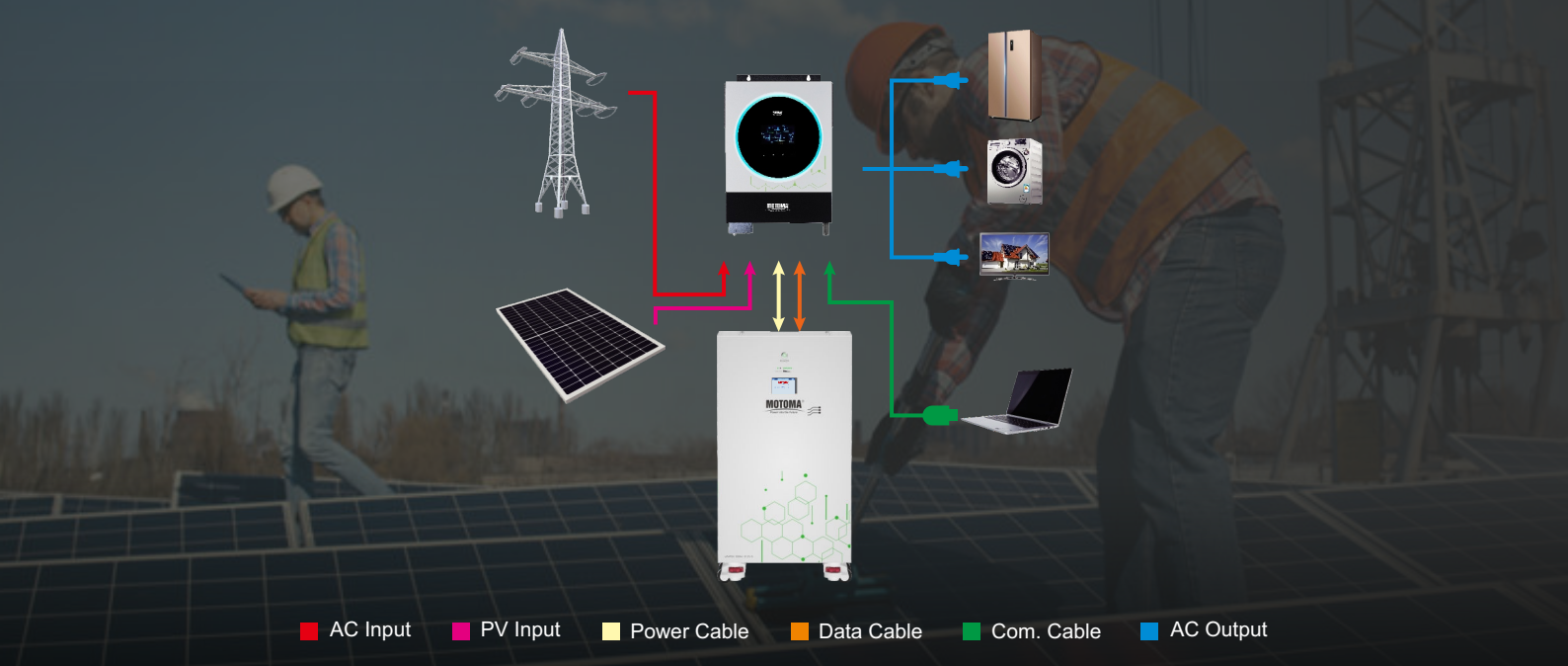
- ◆ Power Generation System (Solar and Wind Power System, etc.)
- ◆ Household Energy Storage System
- ◆ Auto Control System & ATM Machine
- ◆ Electronic Apparatus and Equipment
- ◆ Emergency Light & Emergency Backup
- ◆ Power Supply & Alarm / Security System
- ◆ Communication Power & DC Power
- ◆ Electric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

Smart BMS Compatible with multiple inverter brands.



### Certificates





■ AC Input   
 ■ PV Input   
 ■ Power Cable   
 ■ Data Cable   
 ■ Com. Cable   
 ■ AC Output



Grade A<sup>+</sup> Cells

8000

Up to 8000 Cycles  
@ DOD 80%



Multi-language  
colorful touch LCD screen



With State of Charge



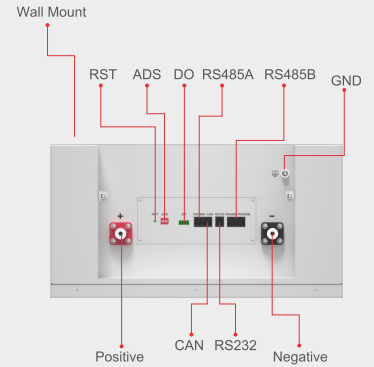
Support high discharge  
current up to 200A



Max. 15 pcs batteries  
in parallel

## Technical Parameter

<b>Battery Model</b>	<b>M90</b>
Nominal Voltage	51.2V
Capacity	320Ah
Nominal Capacity	16.384kWh
Operating Voltage Range	43.2V~58.4V
Maximum Charging Current	200A
Maximum Discharging Current	200A
Charging Temperature Range	0°C~45°C
Discharging Temperature Range	-20°C~60°C
IP Level	IP20
Cell Cycle Life	8000 Cycles @ DOD 80%
Communication Mode	RS485 / CAN / RS232
Test Condition	25±2°C , 0.5C/0.5C , EOL 70%
Battery Dimensions ( LxWxH )	740*440*240 mm
Battery Weight ( NW )	120 kg



## Charge Performance

Recommended Charge Current	30A
Maximum Charge Current	200A
Peak Charge Current	210A (1s)
Recommended Charge Voltage	57.6V
BMS Charge Cut-Off Voltage	58.4V (3.65V/Cell)
Reconnect Voltage	54.08V (3.38V/Cell)
Balancing Voltage	54.4V (3.4V/Cell)
Balancing Current	40mA

## Discharge Performance

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

## Packaging

Packaging Type	1 Battery / UN Wooden Box
Package Dimension ( LxWxH )	1030x530x435 mm
Package Weight ( GW )	145.5 KG



Technical Support for Lifetime



5 Years Warranty