

MOTOMA®

Power into the Future

LITHIUM BATTERY CATALOGUE

Quality Creates Brand, Service Enchances Value



www.motoma.cn



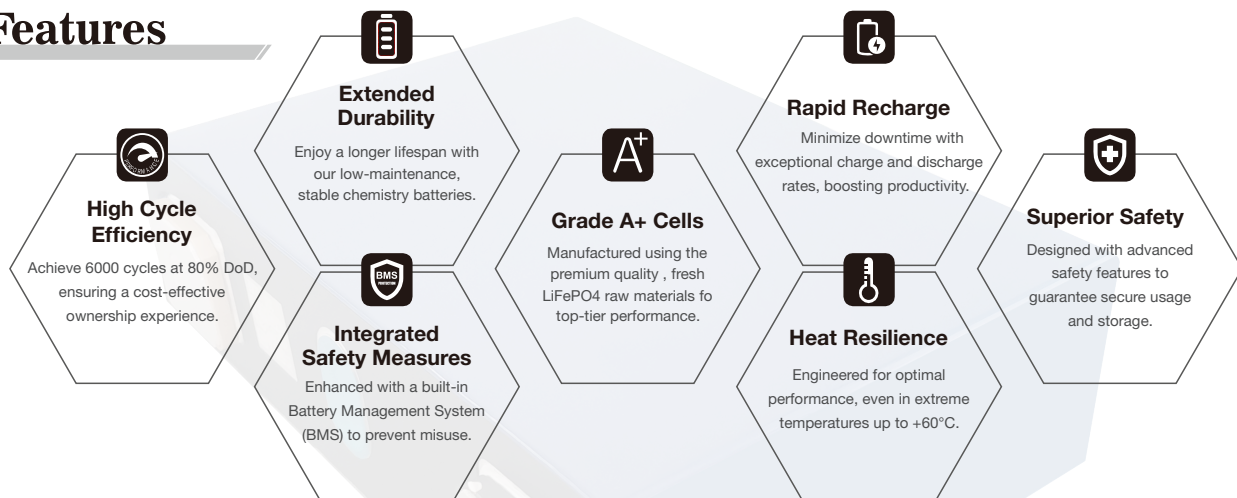
LITHIUM IRON PHOSPHATE BATTERY (LiFePO4) (Standing)

300A
51.2V

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



Technical Parameter

Battery Model	M89
Nominal Voltage	51.2V
Capacity	300Ah
Nominal Capacity	15.36kWh
Operating Voltage Range	43.2V~58.4V
Maximum Charging Current	100A
Maximum Discharging Current	150A
Charging Temperature Range	0°C~45°C
Discharging Temperature Range	-20°C~60°C
IP Level	IP20
Cell Cycle Life (0.5C/0.5C, RT 25°C)	6000Cycles @ DOD 80% / 8000 Cycles @ DOD 50%
Communication Mode	RS485 / CAN / RS232
Battery Dimensions (LxWxH)	800*650*200 mm
Battery Weight (NW)	135.7 kg



+15 Years
Life design.



With State of
Charge design



Support monitoring
via Inverter App



Support high discharge
current up to 150A



Max. 15 pcs batteries
in parallel

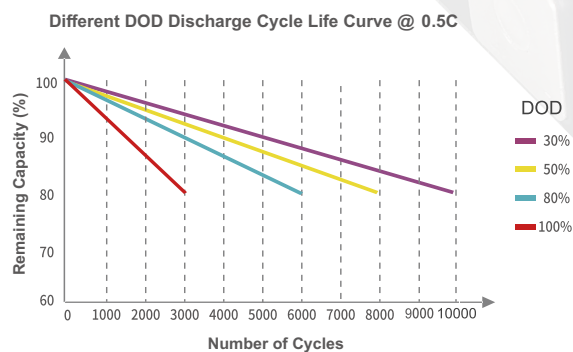
Charge Performance

Recommended Charge Current	30A
Maximum Charge Current	100A
Peak Charge Current	160A (1S)
Recommended Charge Voltage	57.6V
BMS Charge Cut-Off Voltage	>58.4V (3.65V/Cell)
Reconnect Voltage	<57.6V (3.6V/Cell)
Balancing Voltage	>54.08V (3.38V/Cell)
Balancing Current	40mA

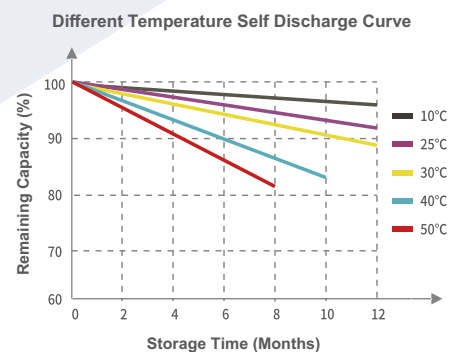
Discharge Performance

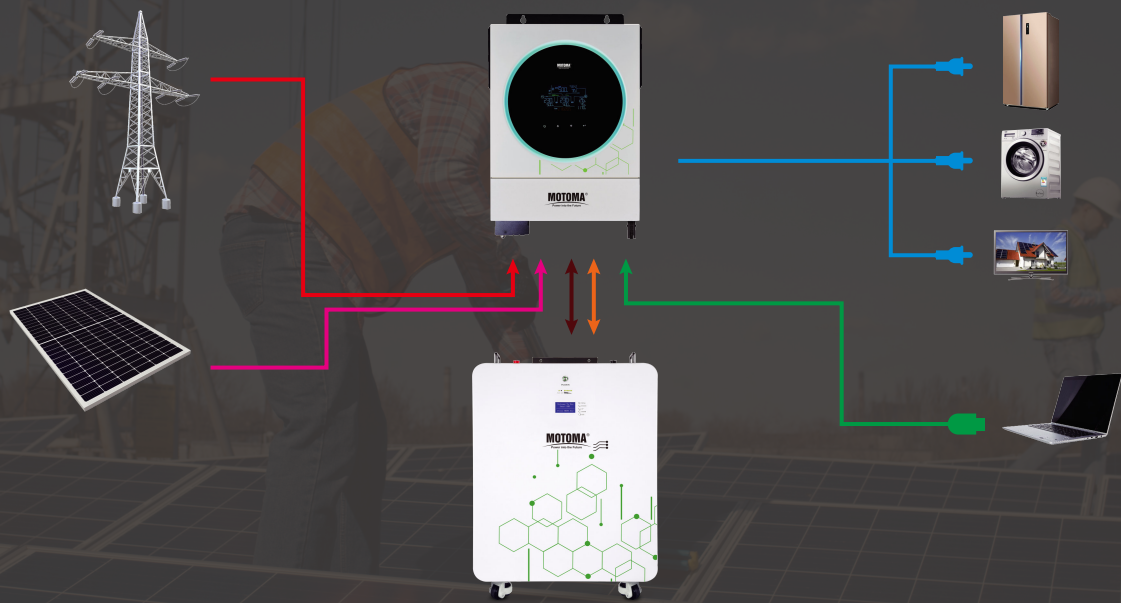
Recommended Discharge Current	30A
Maximum Continuous Discharge Current	150A
Peak Discharge Current	160A (10s)
BMS Discharge Cut-Off Current	200A (500ms)
Recommended Low Voltage Disconnect	48V (3.0V/Cell)
BMS Discharge Cut-Off Voltage	43.2V (1s) (2.7V/Cell)
Reconnect Voltage	<49.6V (3.1V/Cell)
Short Circuit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

Cycle Life Curve



Self Discharge Characteristics Curve





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

Applications

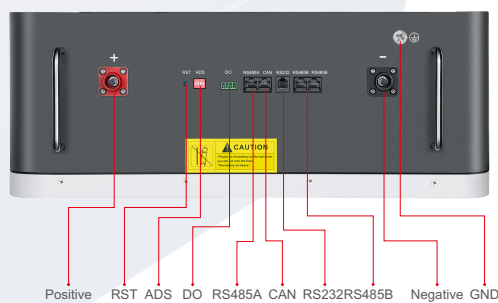
- ◆ Power Generation System (Solar and Wind Power System, etc.)
- ◆ Household Energy Storage System
- ◆ Auto Control System & ATM Machine
- ◆ Electronic Apparatus and Equipment
- ◆ Emergency Light & Emergency Backup
- ◆ Power Supply & Alarm / Security System
- ◆ Communication Power & DC Power
- ◆ Electric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

Packaging

Package Dimension (LxWxH)	UN Wooden Box 1050x760x490 mm
Package Weight (GW)	161 KG



Certificates



Smart BMS supports communication with different brand of hybrid inverter :



 **5 Years Warranty**

 **Technical Support for Lifetime**



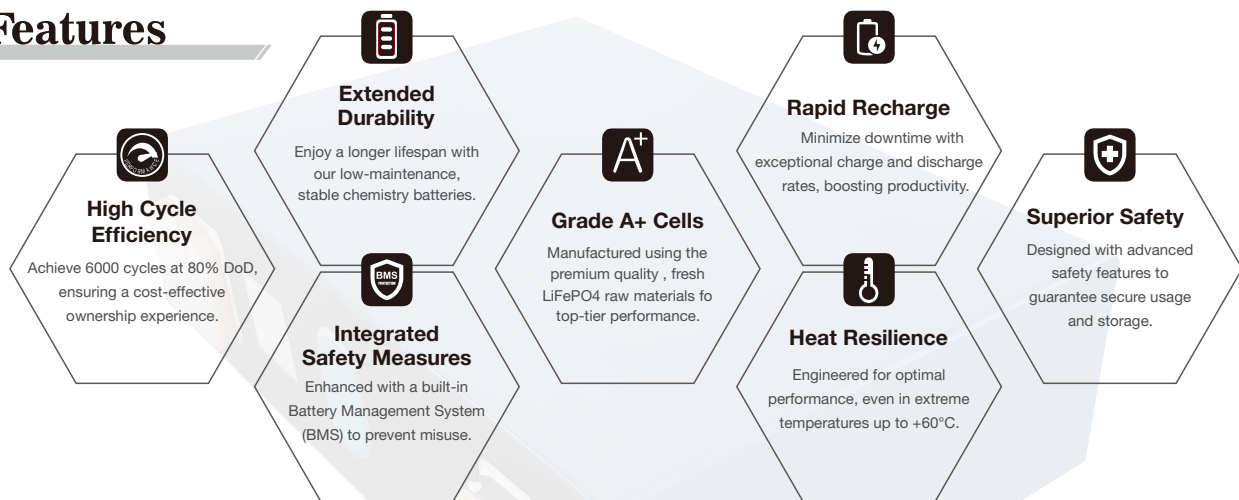
LITHIUM IRON PHOSPHATE BATTERY (LiFePO4) (Wall-Mounted & Standing)

200A
51.2V

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



Technical Parameter

Battery Model	M88PW
Nominal Voltage	51.2V
Capacity	200Ah
Nominal Capacity	10.24kWh
Operating Voltage Range	43.2V~58.4V
Maximum Charging Current	150A
Maximum Discharging Current	150A
Charging Temperature Range	0°C~45°C
Discharging Temperature Range	-20°C~60°C
IP Level	IP20
Cell Cycle Life (0.5C/0.5C, RT 25°C)	6000Cycles @ DOD 80% / 8000 Cycles @ DOD 50%
Communication Mode	RS485 / CAN / RS232
Battery Dimensions (LxWxH)	680*510*195 mm
Battery Weight (NW)	97.5 kg



+15 Years
Life design.



With State of
Charge design



Support monitoring
via Inverter App



Support high discharge
current up to 150A



Max. 15 pcs batteries
in parallel

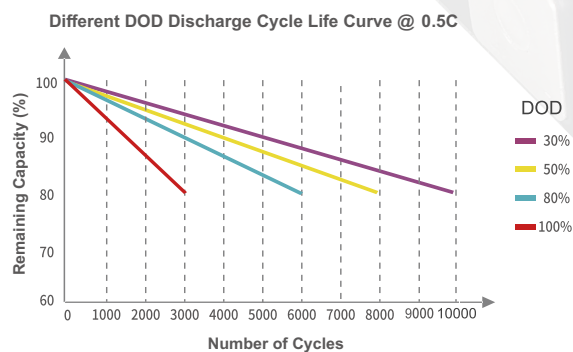
Charge Performance

Recommended Charge Current	30A
Maximum Charge Current	150A
Peak Charge Current	160A (1S)
Recommended Charge Voltage	57.6V
BMS Charge Cut-Off Voltage	>58.4V (3.65V/Cell)
Reconnect Voltage	<57.6V (3.6V/Cell)
Balancing Voltage	>54.08V (3.38V/Cell)
Balancing Current	40mA

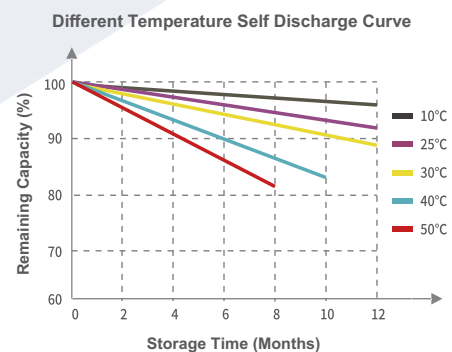
Discharge Performance

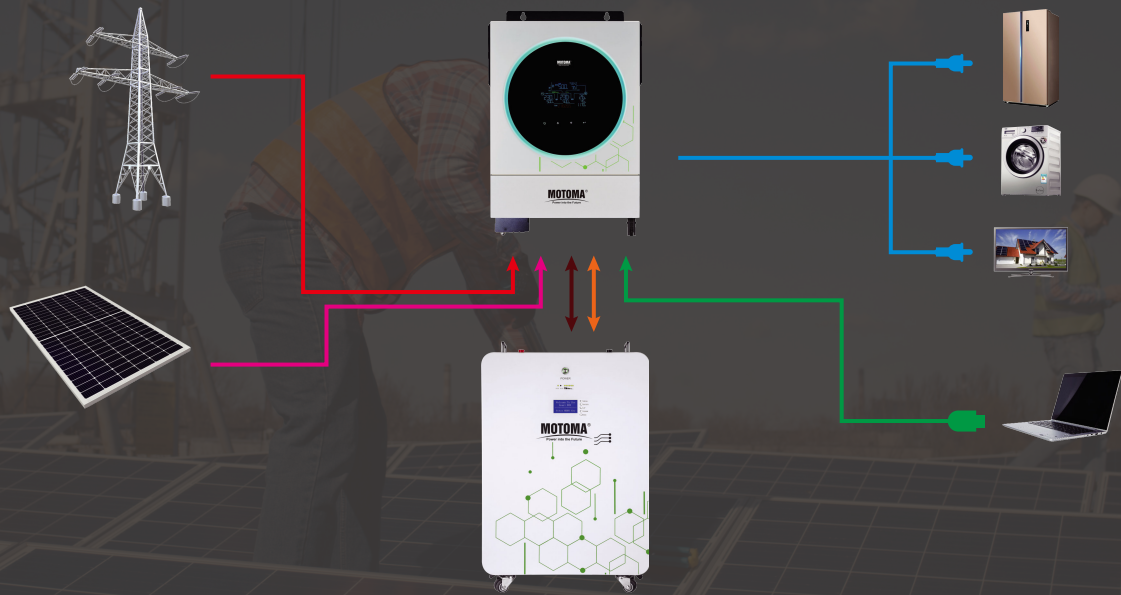
Recommended Discharge Current	30A
Maximum Continuous Discharge Current	150A
Peak Discharge Current	160A (10s)
BMS Discharge Cut-Off Current	200A (500ms)
Recommended Low Voltage Disconnect	48V (3.0V/Cell)
BMS Discharge Cut-Off Voltage	43.2V (1s) (2.7V/Cell)
Reconnect Voltage	<49.6V (3.1V/Cell)
Short Circuit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

Cycle Life Curve



Self Discharge Characteristics Curve





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

Applications

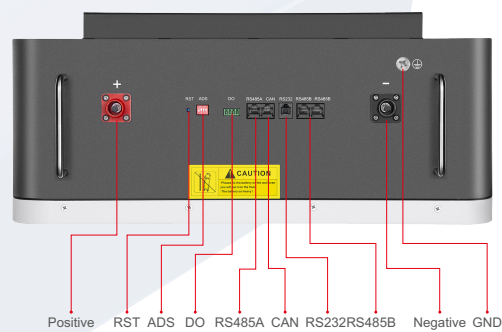
- ◆ Power Generation System (Solar and Wind Power System, etc.)
- ◆ Household Energy Storage System
- ◆ Auto Control System & ATM Machine
- ◆ Electronic Apparatus and Equipment
- ◆ Emergency Light & Emergency Backup
- ◆ Power Supply & Alarm / Security System
- ◆ Communication Power & DC Power
- ◆ Electric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

Packaging

Package Dimension (LxWxH)	UN Wooden Box 955x788x443 mm
Package Weight (GW)	127 KG



Certificates



Smart BMS supports communication with different brand of hybrid inverter :



5 Years Warranty

Technical Support for Lifetime



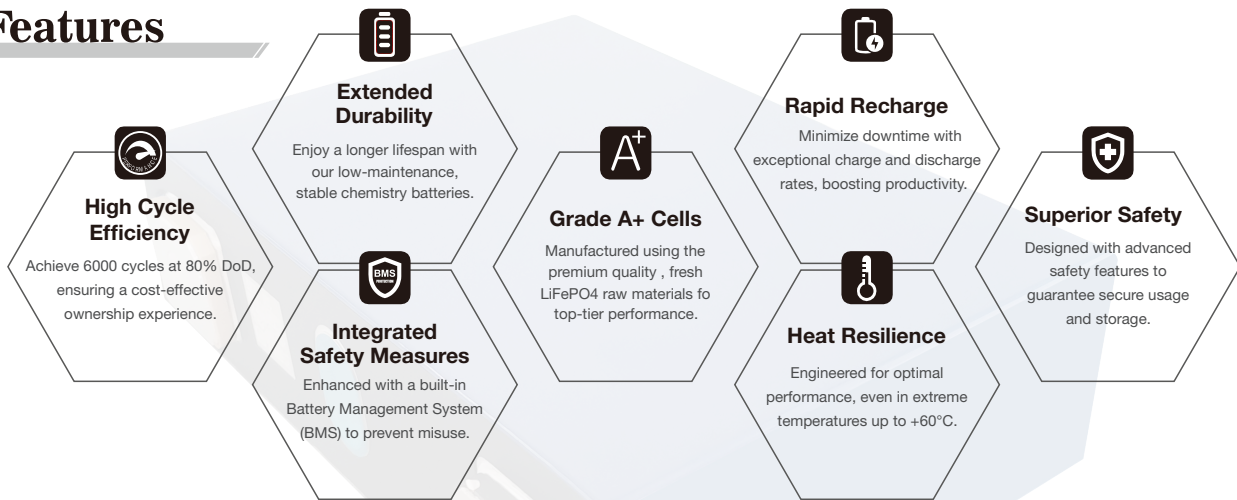
LITHIUM IRON PHOSPHATE BATTERY (LiFePO4) (Wall-Mounted & Standing)

**200A
25.6V**

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



Technical Parameter

Battery Model	M68PW
Nominal Voltage	25.6V
Capacity	200Ah
Nominal Capacity	5.12kWh
Operating Voltage Range	21.6V~29.2V
Maximum Charging Current	150A
Maximum Discharging Current	150A
Charging Temperature Range	0°C~45°C
Discharging Temperature Range	-20°C~60°C
IP Level	IP20
Cell Cycle Life (0.5C/0.5C, RT 25°C)	6000Cycles @ DOD 80% / 8000 Cycles @ DOD 50%
Communication Mode	RS485 / CAN / RS232
Battery Dimensions (LxWxH)	442*510*195 mm
Battery Weight (NW)	56.3 kg



+15 Years
Life design.



With State of
Charge design



Support monitoring
via Inverter App



Support high discharge
current up to 150A



Max. 15 pcs batteries
in parallel

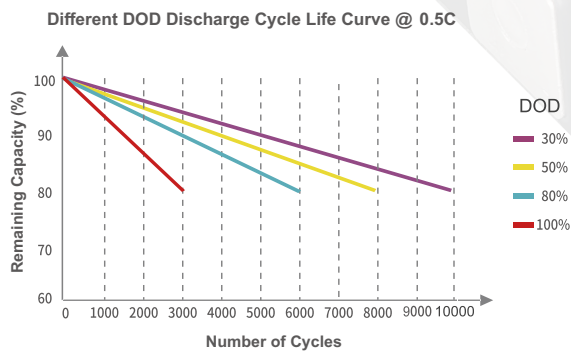
Charge Performance

Recommended Charge Current	30A
Maximum Charge Current	150A
Peak Charge Current	160A (1S)
Recommended Charge Voltage	28.8V
BMS Charge Cut-Off Voltage	>29.2V (3.65V/Cell)
Reconnect Voltage	<28.8V (3.6V/Cell)
Balancing Voltage	>27.04V (3.38V/Cell)
Balancing Current	40mA

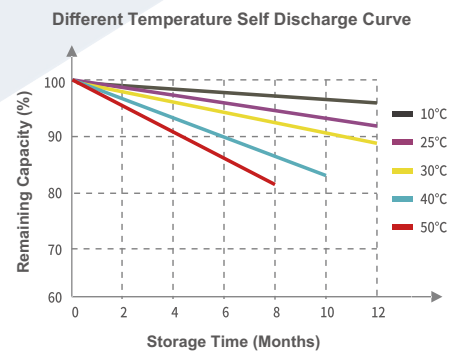
Discharge Performance

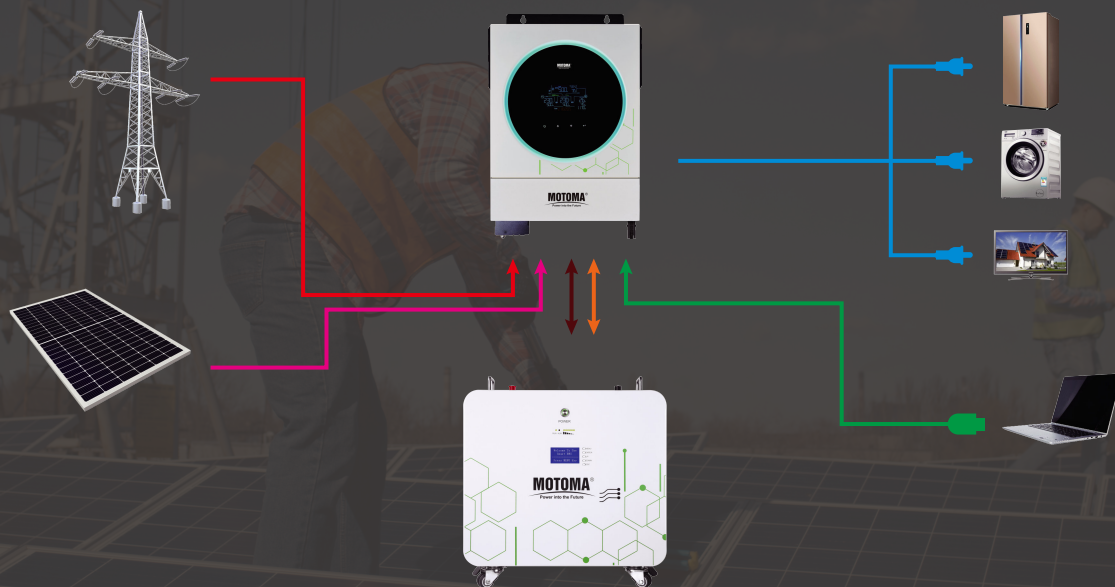
Recommended Discharge Current	30A
Maximum Continuous Discharge Current	150A
Peak Discharge Current	160A (10s)
BMS Discharge Cut-Off Current	200A (500ms)
Recommended Low Voltage Disconnect	24V (3.0V/Cell)
BMS Discharge Cut-Off Voltage	21.6V (1s) (2.7V/Cell)
Reconnect Voltage	<24.8V (3.1V/Cell)
Short Circuit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

Cycle Life Curve



Self Discharge Characteristics Curve





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

Applications

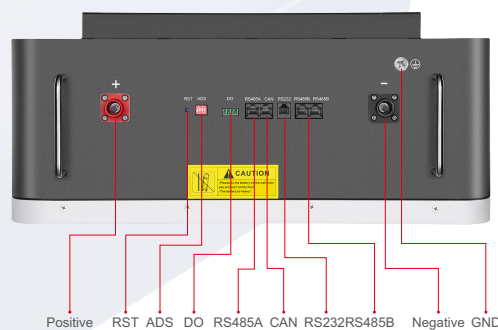
- ◆ Power Generation System (Solar and Wind Power System, etc.)
- ◆ Household Energy Storage System
- ◆ Auto Control System & ATM Machine
- ◆ Electronic Apparatus and Equipment
- ◆ Emergency Light & Emergency Backup
- ◆ Power Supply & Alarm / Security System
- ◆ Communication Power & DC Power
- ◆ Electric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



Packaging

Package Dimension (LxWxH)	UN Wooden Box 788x718x443 mm
Package Weight (GW)	80.1 KG

Certificates



Smart BMS supports communication with different brand of hybrid inverter :



5 Years Warranty

Technical Support for Lifetime



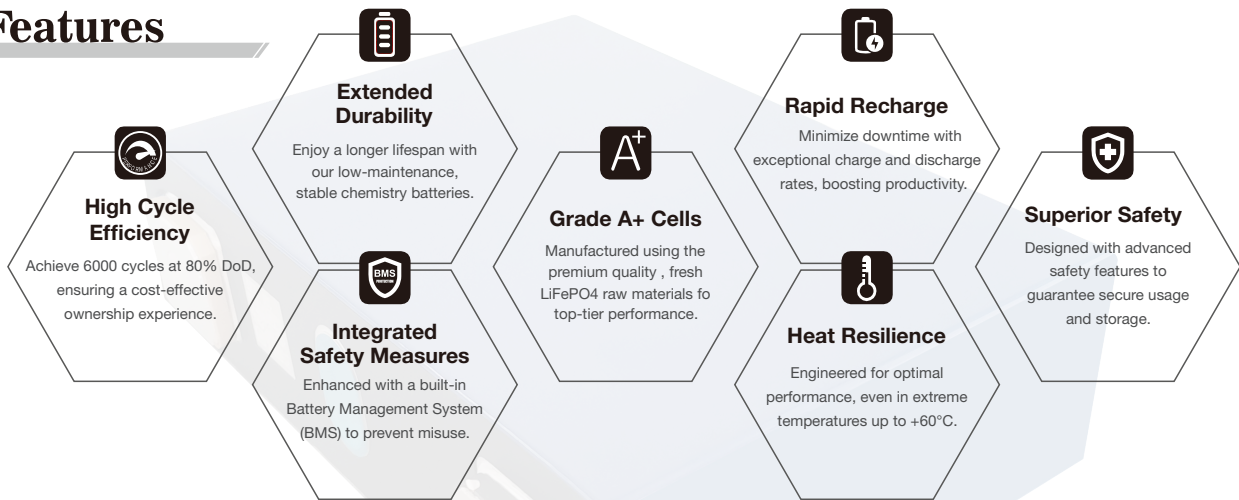
LITHIUM IRON PHOSPHATE BATTERY (LiFePO4) (M87U)

100A
51.2V

Introduction

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries.

Features



Technical Parameter

Battery Model	M87U
Nominal Voltage	51.2V
Capacity	100Ah
Nominal Capacity	5.12kWh
Operating Voltage Range	43.2V~58.4V
Maximum Charging Current	100A
Maximum Discharging Current	100A
Charging Temperature Range	0°C~45°C
Discharging Temperature Range	-20°C~60°C
IP Level	IP20
Cell Cycle Life (0.5C/0.5C, RT 25°C)	6000Cycles @ DOD 80% / 8000 Cycles @ DOD 50%
Communication Mode	RS485 / CAN
Battery Dimensions (LxWxH)	530*440*132 mm
Battery Weight (NW)	47.7 kg



Built-in intelligent BMS for battery protection



Max. 10pcs batteries in parallel



Equipment with RS485 / CAN communication



Efficient & long-lasting service life

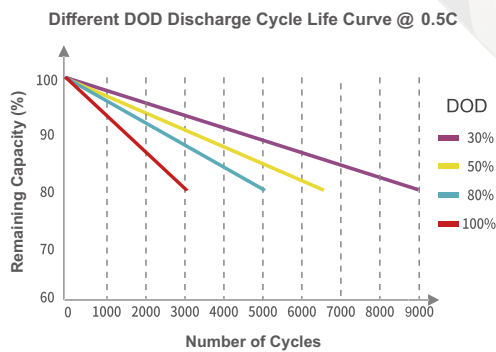
Charge Performance

Recommended Charge Current	30A
Maximum Charge Current	100A
Recommended Charge Voltage	57.6V
BMS Charge Cut-Off Voltage	>58.4V (3.65V/Cell)
Reconnect Voltage	<57.6V (3.6V/Cell)
Balancing Voltage	>54.08V (3.38V/Cell)
Maximum Cells in Series	16(*Consult MOTOMA)

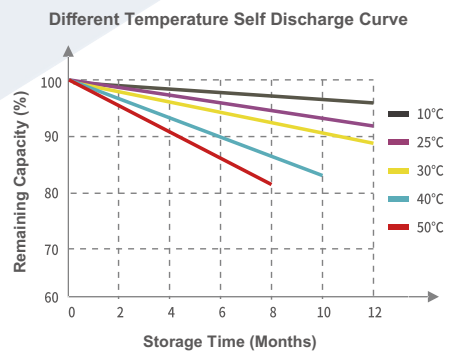
Discharge Performance

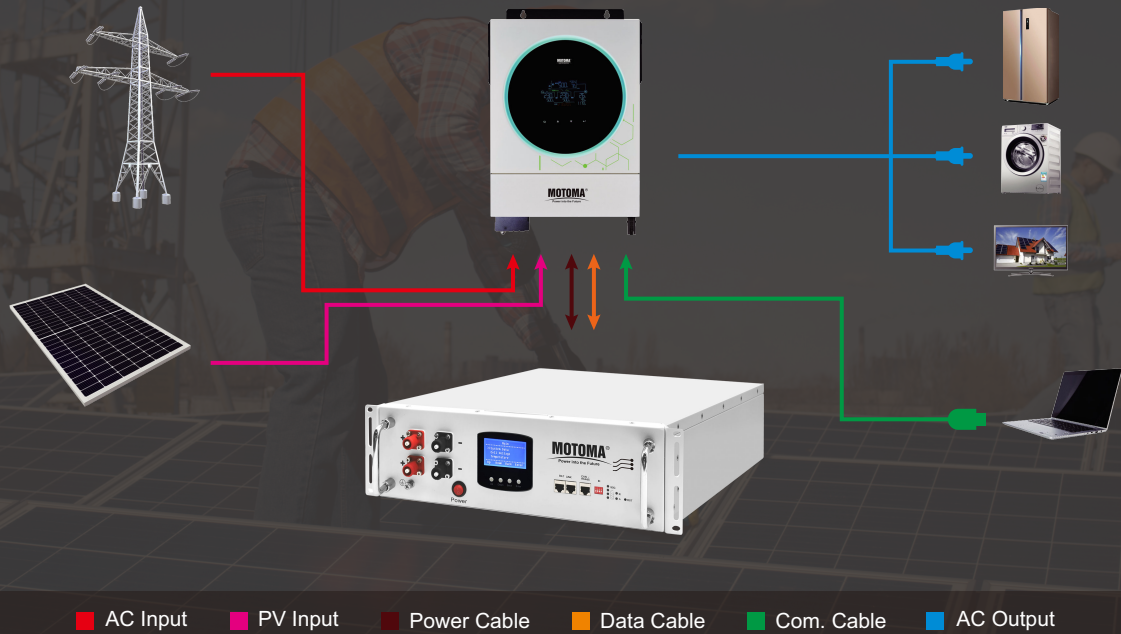
Maximum Continuous Discharge Current	100A
Peak Discharge Current	110A (1s)
BMS Discharge Cut-Off Current	150A (100ms)
Balancing open voltage	54.4V (3.40V/Cell)
Recommended Low Voltage Disconnect	48V(3.0V/Cell)
BMS Discharge Cut-Off Voltage	43.2V (1s)(2.7V/Cell)
Reconnect Voltage	<49.6V (3.1V/Cell)
Short Circuit Protection	250~500 us

Cycle Life Curve



Self Discharge Characteristics Curve





Applications

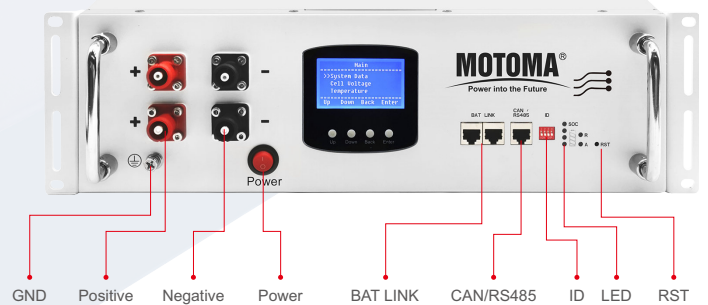
- ◆ Solar Storage
- ◆ Switching applications and more
- ◆ Base transceiver station
- ◆ Communication equipments
- ◆ Central office
- ◆ Telecommunication systems
- ◆ Electronic cash registers
- ◆ Microprocessor based office machine
- ◆ UPS



Packaging

Package Dimension (LxWxH)	UN Carton 660x580x220 mm
Package Weight (GW)	50 KG

Certificates



Smart BMS supports communication with different brand of hybrid inverter :

