

### Introduction

MOTOMA BLUE series LFP battery designed with 10 years or more service life for generalpurpose, which designed with advanced technology, built in intelligent BMS for more safe, with SOC design.

### Technical Parameter

Battery Model	M47	M48
Nominal voltage	12.8V	12.8V
Capacity	100Ah	200Ah
Nominal capacity	1.28kWh	2.56kWh
Operating voltage range	10V~14.6V	10V~14.6V
Maximum charging current	100A	100A
Maximum discharging current	100A	100A
Charging temperature range	0°C~45°C	0°C~45°C
Discharging temperature range	-20°C~60°C	-20°C~60°C
Dimension	330x172x215mm	522x240x218mm
Weight	12Kg	23Kg
IP level	IP67	IP67
Cycle life @ DOD 80%	4000 times	4000 times
Terminal type	F12/F14	F23

# Features



#### High cycle life

4000 cycles @80% DoD for effectively lower total of ownership cost.



### Longer service life

Low maintenance batteries with stable chemistry.



# Built in circuit protection

Battery Management System (BMS) is incorporated against abuse.



#### **Better storage**

Up to 6 months thanks to its extremely low self discharge(LSD) rate and no risk of sulphation.



### Quickly recharge

Save time and increase productivity with less down time thanks to superior charge/ discharge efficiency./



### Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to +60°C.



#### Lightweight

Lithium batteries provide more Wh/Kg while alsobeing up to 1/3 the weight of its SLA equivalent.





# **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)

### Dimensions

	M47	M48
Length	330±1mm (12.99 inches)	522±1mm (22.55 inches)
Width	172±1mm (6.77 inches)	240±1mm (9.44 inches)
Heigth	215±1mm (8.46 inches)	218±1mm (8.58 inches)
Total Heigth	221±1mm (8.70 inches)	224±1mm (8.82 inches)



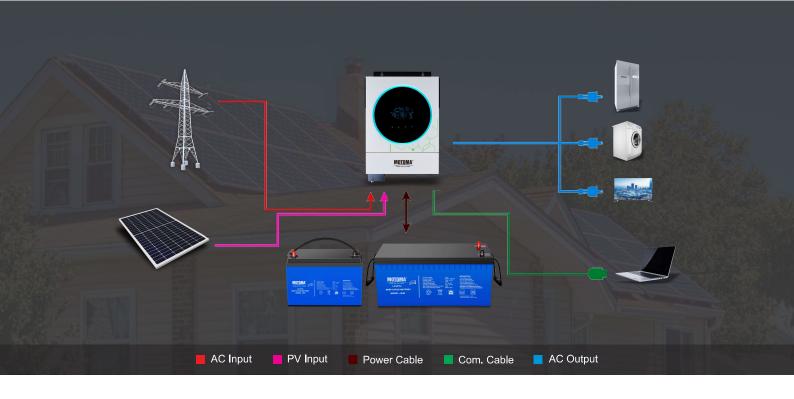




M48 12V200Ah





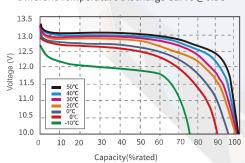


## Charge Performance

Recommended Charge Current	30A
Maximum Charge Current	100A
Peak Charge Current	110 A (1s)
Recommended Charge Voltage	14.4V
BMS Charge Cut-Off Voltage	<14.6V (3.65V/Cell)
Reconnect Voltage	>14.4V (3.6V/Cell)
Balancing Voltage	<13.52V (3.38V/Cell)
Balancing Current	40mA

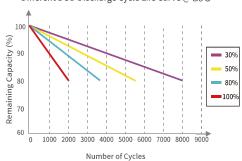
#### Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



#### Cycle Life Curve

Different DOD Discharge Cycle Life Curve @ 0.5 C

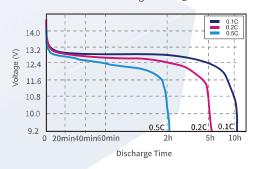


### **Discharge Performance**

Recommended Discharge Current	30A
Maximum Continuous Discharge Current	100 A
Peak Discharge Current	110 A (1s)
BMS Discharge Cut-Off Current	150 A (100ms)
Recommended Low Voltage Disconnect	12V (3.0V/Cell)
BMS Discharge Cut-Off Voltage	10.8V (1s) (2.7V/Cell)
Reconnect Voltage	>12.4V (3.1V/Cell)
Short Circuit Protection	250 ~ 500 µs

#### **Different Rate Discharge Curve**

Different Rate Discharge Curve @25°C



#### **Self Discharge Characteristics Curve**

Different Temperature Self Discharge Curve

