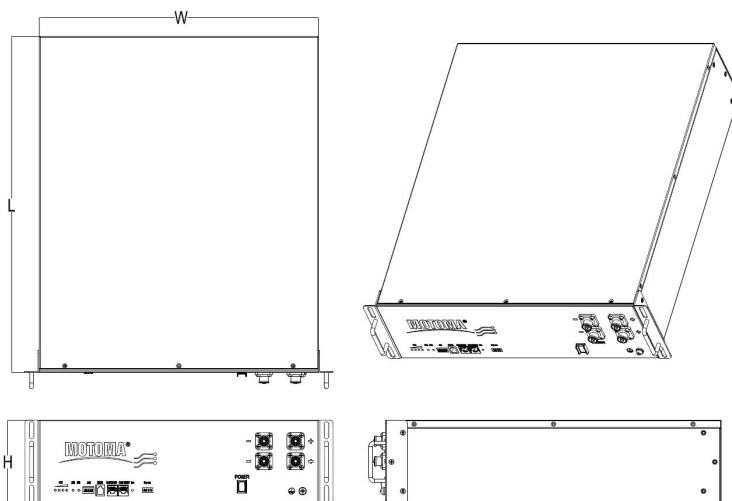


LITHIUM IRON PHOSPHATE BATTERY —M87U



OUTLINE DIMENSION



| L mm(") | W mm(") | H mm(") |
|------------|------------|------------|
| 530 (20.8) | 440 (17.3) | 132 (5.19) |

ELECTRICAL PERFORMANCE

| | |
|------------------|------------------|
| Nominal Voltage | 51.2 V |
| Nominal Capacity | 100Ah |
| Capacity @ 20A | 300 min |
| Energy | 5120 Wh |
| Communication | CAN/RS232/RS485 |
| Resistance | ≤45 mΩ @ 50% SOC |
| Efficiency | >96% |
| Module Parallel | Up to 10 packs |

MECHANICAL PERFORMANCE

| | |
|-----------------------|---|
| Dimension (L x W x H) | 530 x 440 x 132 mm 20.8 x 17.3 x 5.19" |
| Approx. Weight | 99.17 lbs(45Kg) |
| Terminal Type | DIN POST |
| Terminal Torque | 80 ~ 100 in-lbs (9 ~ 11 N-m) |
| Case Material | SPCC |
| Enclosure Protection | IP21 |

CHARGE PERFORMANCE

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

TEMPERATURE PERFORMANCE

| | |
|------------------------------|---------------------------|
| Discharge Temperature | -4 ~ 131 °F (-20 ~ 55 °C) |
| Charge Temperature | -4 ~ 113 °F (0 ~ 45 °C) |
| Storage Temperature | 23 ~ 95 °F (-5 ~ 35 °C) |
| BMS High Temperature Cut-Off | 149 °F (65 °C) |
| Reconnect Temperature | 131 °F (55 °C) |

DISCHARGE PERFORMANCE

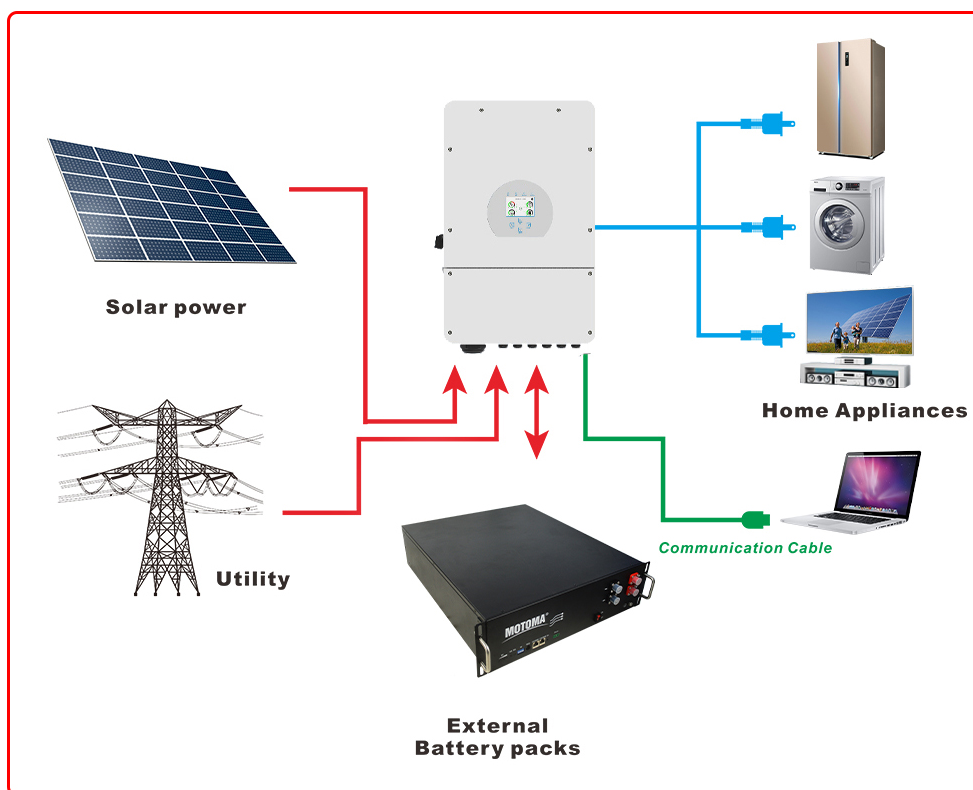
| | |
|--------------------------------------|------------------------|
| Maximum Continuous Discharge Current | 100 A |
| Peak Discharge Current | 110 A (1s) |
| BMS Discharge Cut-Off Current | 150 A (100ms) |
| Balancing open voltage | 54.4V (3.40V/Cell) |
| Recommended Low Voltage Disconnect | 48V (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 μs |

COMPLIANCE

| | |
|-------------------------|---|
| Certifications | CE (battery) UN38.3 (battery) UL1642 & IEC62133 (cells) |
| Shipping Classification | UN 3480, CLASS 9 |

LITHIUM IRON PHOSPHATE BATTERY —M87U

SYSTEM DIAGRAM



FEATURES & BENEFITS



High cycle life

5000 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 also being up to 1/3 the weight of its SLA equivalent.

APPLICATIONS

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

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

CAUTIONS

- Do NOT short circuit, reverse polarity, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 30~50% SOC. Recharging every 3 months is recommended. The storage area should be clean, cool, dry and ventilated.