

# LITHIUM IRON PHOSPHATE BATTERY — LP18-48100

## ELECTRICAL PERFORMANCE

Nominal Voltage	48V
Nominal Capacity	100 Ah
Capacity @ 20A	300 min
Energy	5120 Wh
Communication	CAN2.0/RS232/RS485
Resistance	≤45 mΩ @ 50% SOC
Efficiency	>96%
Module Parallel	Up to 16 packs

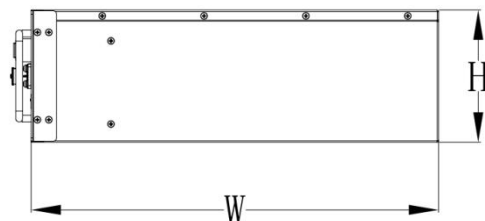
## CHARGE PERFORMANCE

Recommended Charge Current	20A
Maximum Charge Current	100A
Recommended Charge Voltage	54V
BMS Charge Cut-Off Voltage	<54.7 V (3.65V/Cell)
Reconnect Voltage	>54 V (3.6V/Cell)
Balancing Voltage	<54V (3.6V/Cell)
Maximum Batteries in Series (cells)	15(*Consult MUST)

## DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	100 A
Peak Discharge Current	110 A (3s)
BMS Discharge Cut-Off Current	150 A (300ms)
Balancing open voltage	51.7V (3.45V/Cell)
Recommended Low Voltage Disconnect	41.2 V (2.75V/Cell)
BMS Discharge Cut-Off Voltage	>30.0V (2s) (2.0V/Cell)
Reconnect Voltage	>37.5 V (2.5V/Cell)
Short Circuit Protection	250 ~ 500 μs

## OUTLINE DIMENSION



## MECHANICAL PERFORMANCE

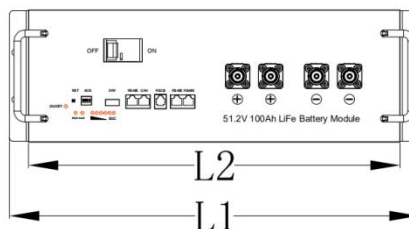
Dimension (L x W x H)	482 x 480 x 133 mm 19.0 x 18.9 x 5.2"
Approx. Weight	20.0 lbs (44 kg)
Terminal Type	DIN POST
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)
Case Material	SPPC
Enclosure Protection	IP54

## 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)

## HEATING FOIL PERFORMANCE

Heating Temperature Range	-4 to 41 °F (-20 to 5 °C)
Heating Time	Approximately 1 hour @ 7.5 A
BMS Heating Foil Cut-Off	158 °F (70 °C)

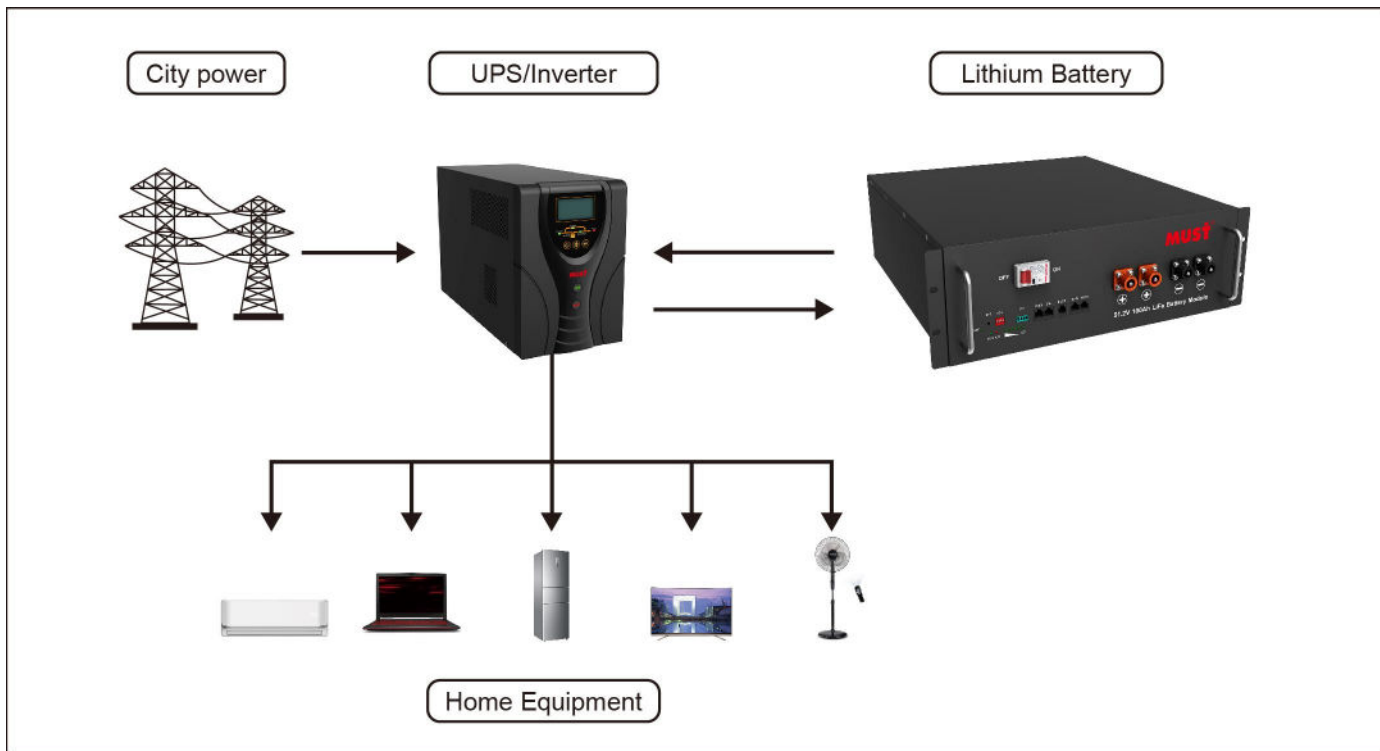


L1 mm(")	L2 mm(")	W mm(")	H mm(")
482(19.0)	438(17.2)	480 (18.9)	133 (5.2) = 3U

formance may vary depending on application. All specifications are subject to change without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.

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### DIAGRAM



### FEATURES & BENEFITS



#### High cycle life

2000 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.

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