

12.8V100Ah







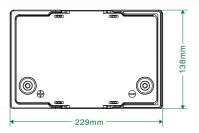


LFP Li-ion Battery

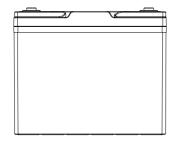
NPL12-100MI



Dimension:











Unit: mm

FEATURES

- Prismatic LiFePO4 cells, High consistency, long cycle life and much more safety.
- Cell certification: ROHS, IEC62619, UL1973, UL9540A
- UN38.3, CE certification for battery.
- The cycle life over 3500 times @80%DOD

DESIGN

- ABS container, replace VRLA battery perfectly.
- Fast charge performance.
- -20~+55° C widely temperature range.
- Maintenance free.

BATTERY MANAGEMENT SYSTEM (BMS)

- Integrated hardware BMS inside.
- Independent protection for charge and discharge. Over voltage, low voltage, Over current, Over temperature, Low temperature and short circuit protection.



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Model	NPL12-100MI
Nominal Voltage [V]	12.8
Nominal Capacity [Ah]	100
Total Energy [Wh]	1280
Max. Charging Current [A]	100
Recommended Charging Current [A]	50
Charging Voltage [V]	14.0~14.6
Max. Discharging Current [A]	100
End of Dicharge Voltage [V]	11.2
Pulse Discharge Current	300A @ 1s
Dimension [W*D*H, mm]	229*138*210
Weight [Kg]	9.9
Operation Humidity	0~95% RH (No condensing)
Operating Temperature Range	Charge: 0 ~ +50°C Discharge: -20 ~ +55°C
BMS Protection	Over charge Over discharge, Over current, Over temperature, Low temperature, Short circuit
Parallel Support	Yes, Max 4 Sets
Series Support	Yes, Max 4 Sets
Cycle Life	>3500
Designed Calendar Life	10 Years
Certification	UN38.3, CE, MSDS

Note:

1. 80%DOD and to 80% of initial capacity .

The datasheet is subject to change without prior notification.

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The battery integrate LiFePO4 type Battery Management System (BMS) inside which can monitor and optimize each single prismatic cell during charge & discharge and protect the battery pack from overcharge, over discharge, high temperature, low temperature, over current and short circuit. Overall, the BMS helps to ensure safe and accurate operation of the battery.

BMS Detail Information	
Over-Charge Protection	
Over-Charge Protection	3.75V± 25mV(For cell)
Over-Charge Protection Delay	500~1500 ms
Over-Charge Release	3.55V± 50mV(For cell)
Over-Discharge Protection	
Over-Discharge Protection	2.2V±80mV(For cell)
Over-Discharge Protection Delay	500~1500 ms
Over-Discharge Release	2.7V± 100mV(For cell)
Over Current Protection	
Charge Over Current Protection	110A± 10A
Charge Over-Current Protection Delay	500~1500 ms
Charge Over Current Protection Release	Disconnect charger or Discharge
Discharge Over Current Protection	550A± 50A
Discharge Over Current Protection Delay	500~1500 ms
Discharge Over Current Protection Release	Disconnect load or Charge
Over Temperature Protection	
Charge Low Temperature Protection	0±2°C
Charge Low Temperature Protection Release	3±2°C
Charge High Temperature Protection	50±2°C
Charge High Temperature Protection Release	47±2°C
Discharge High Temperature Protection	67±2°C
Discharge High Temperature Protection Release	52±2°C
BMS High Temperature Protection	90±5°C
BMS High Temperature Protection Release	65±15°C
Short Circuit Protection	
Short Current Protection Delay Time	200~300 uS
Short Current Release Method	Disconnect load