

12.8V 100Ah BT

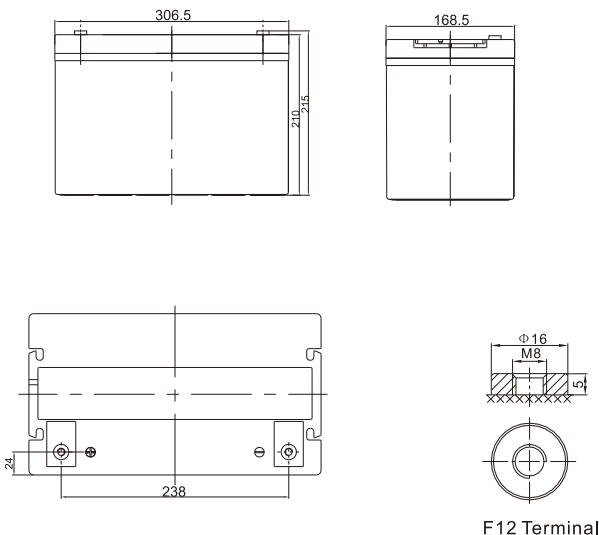


LFP Li-ion Battery

NPL12-100BT



Dimension:



F12 Terminal

Unit: mm

FEATURES

- + Prismatic LiFePO4 cells, high consistency, long cycle life and safe.
- + UN38.3, CE certification.
- + The cycle life over 2000 times (@25°C, 0.5C/0.25C, 80%DOD)
- + IP rating: IP65

DESIGN

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

BATTERY MANAGEMENT SYSTEM (BMS)

- + Integrated software BMS inside.
- + Independent protection for charge and discharge.
- + Over voltage, low voltage, over current, over temperature, low temperature and short circuit protection.
- + Bluetooth communication, APP for Android and iPhone.

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Specification

Model	NPL12-100BT
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 Discharge Voltage [V]	11.2
Pulse Discharge Current	300A @ 1s
Dimension [W*D*H, mm]	306*168*210
Weight [Kg]	12.26
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 ¹
Designed Design Life	10 Years
Certification	UN38.3, CE, MSDS
Communcation	Bluetooth connectivity ²

Note:

- 80%DOD and to 80% of initial capacity.
- To install Bluetooth App, search "Neutron Power" at Apple App store or Google play.
Or scan the QR code.

The datasheet is subject to change without prior notification.



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The battery integrates 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 maintain safe operation and optimal performance of the battery.

Over-Charge Alarm & Protection

Over-Charge Alarm	/
Over-Charge Protection	3.7V (For cell) 14.8V (For pack)
Over-Charge Protection Delay	1000 ms
Over-Charge Release	3.45V (For cell) 13.8V (For pack)

Over-Discharge Alarm & Protection

Over-Discharge Alarm	2.8V (For cell) 11.2V (For pack)
Over-Discharge Protection	2.5V (For cell) 10V (For pack)
Over-Discharge Protection Delay	1000 ms
Over-Discharge Release	2.8V (For cell) 11.2V (For pack)

Over Current Alarm & Protection

Charge Over Current Alarm	60A
Charge Over Current Protection	105A
Charge Over-Current Protection Delay	15S
Charge Over Current Protection Release	Automatic release after 1min and up to 3 times or discharge
Discharge Over Current Alarm	105A
Discharge Over Current Protection-1	110A
Discharge Over Current Protection-1 Delay	15S
Discharge Over Current Protection-2	300A
Discharge Over Current Protection-2 Delay	200ms
Discharge Over Current Protection Release	Automatic release after 1min and up to 3 times or charge

Over Temperature Alarm & Protection

Charge Low Temperature Alarm	7°C
Charge Low Temperature Protection	0°C
Charge Low Temperature Protection Release	5°C
Charge High Temperature Alarm	50°C
Charge High Temperature Protection	55°C
Charge High Temperature Protection Release	45°C
Discharge Low Temperature Alarm	-10°C
Discharge Low Temperature Protection	-20°C
Discharge Low Temperature Protection Release	-17°C
Discharge High Temperature Alarm	55°C
Discharge High Temperature Protection	60°C
Discharge High Temperature Protection Release	50°C

Short Circuit Protection

Short Circuit Current Protection Delay Time	300 uS
Short Circuit Current Release Method	Disconnect load