

12.8V 8Ah

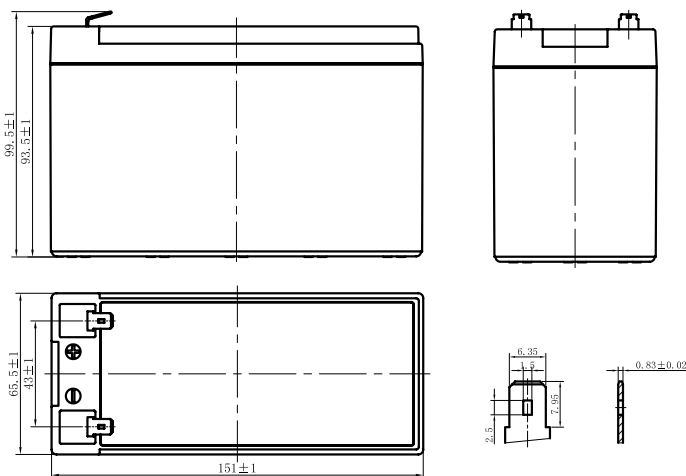
LFP Li-ion Battery



NPL12-8



Dimension:



Unit: mm

FEATURES

- + Cylindrical LiFePO4 cells (4Ah, 2P4S), 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)

- + Integrate hardware BMS inside.
- + Independent protection for charge and discharge.
- + Over voltage, low voltage, over current and short circuit protection.

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Specification

Model	NPL12-8
Nominal Voltage [V]	12.8
Nominal Capacity [Ah]	8
Total Energy [Wh]	102.4
Max. Charging Current [A]	8
Recommended Charging Current [A]	4
Charging Voltage [V]	14.0~14.6
Max. Discharging Current [A]	8
End of Discharge Voltage [V]	11.2
Pulse Discharge Current	20A @ 10s
Dimension [W*D*H, mm]	151*65*93.5
Weight [Kg]	0.97
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 temperature, short circuit
Parallel Support	Yes, Max 4 Sets
Series Support	Yes, Max 4 Sets
Cycle Life	>2000 ¹
Designed Design 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 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 Protection	
Over-Charge Protection Per Cell	3.70V ± 0.05V
Over-Charge Protection Delays	500~1000ms
Over-Charge Release Per Cell	3.55V ± 0.05V
Over-Charge Release Method	Discharge to below release voltage
Over-Discharge Protection	
Over-Discharge Alarm	2.20V ± 0.1V
Over-Discharge Protection	500~1000ms
Over-Discharge Protection Delay	2.70 ± 0.1V
Over-Discharge Release	Charge to above release voltage
Over Current Protection	
Charge Over Current Protection	N/A
Charge Over Current Protection Release Method	N/A
Discharge Over Current Protection	60 ± 10A @ 500~1500ms
Discharge Over Current Protection Release Method	Disconnect load
Over Temperature Protection	
Charge Over Temperature Protection	68 ± 3°C
Charge Over Temperature Protection Release	55 ± 3°C
Charge Low Temperature Protection	N/A
Charge Low Temperature Protection Release	N/A
Discharge Over Temperature Protection	68 ± 3°C
Discharge Over Temperature Protection Release	55 ± 3°C
Discharge Low Temperature Protection	N/A
Discharge Low Temperature Protection Release	N/A
Discharge Low Temperature Protection Release	N/A
Protection Release Method	N/A
BMS High Temperature Protection	N/A
BMS High Temperature Protection Release	N/A
Protection Release Method	Reach release temperature
Short Circuit Protection	
Short Circuit Current Protection	Short circuit of external load
Short Circuit Current Protection Delays	200~320 uS
Short Circuit Current Protection Release Method	Disconnect load