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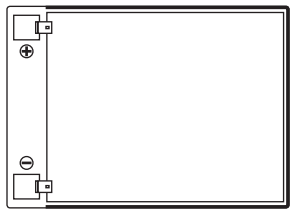
Technical specification

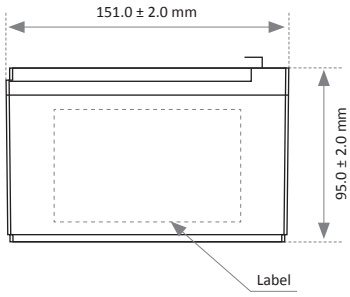
LP12V11AH-BT

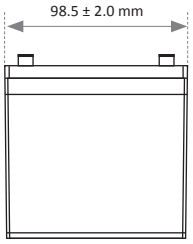
Greeneye LiFePO4 Battery 12V/11Ah with PCM and Bluetooth, LP12V11AH-BT

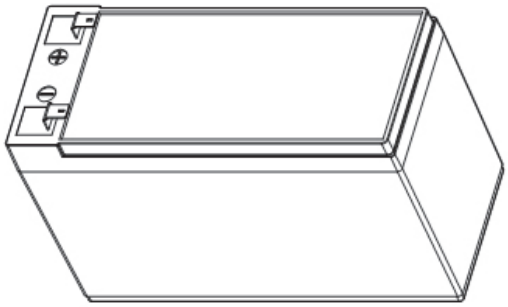
Items		Description
Normal specification		
Nominal Voltage		12.8V
Normal Capacity		11Ah
Internal Resistance		≤ 60 m Ω
Standard Charge		
Battery operation temperature range @charging		0~45°C
Normal charge voltage		14.6 ± 0.1V
Recommended float charge voltage(for Standby use)		13.8 ± 0.1V
Allowed MAX charge current		15A @Battery initial Temp 25 ± 5°C
Recommended charge current		≤ 6A
Standard discharge		
Battery operation temperature range @discharging		-20~60°C
Output Voltage Range		8.0~14.6V
Allowed discharge current		15A recommended, 30A discharge ability @Battery initial Temp 25 ± 5°C
Pulse discharge current		55A withstand 3 s
Discharge Cut-off voltage		8.0V
Mechanical Characteristics		
Dimension		Length 151 ± 2 mm Width 98.5 ± 2 mm Height 95 ± 2 mm
Weight		Approx. 1.6 Kg
Storage		
Storage Temperature & Humidity Range	Short: within one month	-20~35°C, 45~75% RH
	Long term: above one month	-10~30°C, 45~75% RH
Self-discharge rate	Residual capacity	≤ 3% per month; ≤ 15% per year
	Reversible capacity	≤ 1.5% per month; ≤ 8% per year

Dimensions:









Electrical Characteristics & Test Condition

Ambient Temperature: 25±5°C; Huminity: 45%~75%.

Items	Criterion	Condition
Internal Impedance	≤ 60 m Ω	Test the internal resistance of 50% SOC battery pack with 1 kHz AC internal resistance test instrument.
Minimal Capacity	≥ 10.5Ah	Rest for 1 hour after fully charged, then discharge with 0.33C current until the battery reaches the discharge cutoff voltage. Repeat above process for three times, if the discharge time is not less than 180 minutes, you can stop and define the Discharging current * time value (Ah) as battery capacity.
Short circuit protection	Automatically cutoff discharging when short circuit, and release after remove the lead.	Connect the positive and negative of this battery pack through a lead with the resistance less than 5 m Ω.
MAX charge Current	15A	Charging with this current for more than 0.5 h and the added temperature of battery pack less than 20°C.
MAX discharge Current	30A	Discharging with 15A(recommanded) for more than 0.5 h and the added temperature of battery pack less than 35°C.
Cycle life (DOD%100)	≥ 2000 cycle	Discharge with the current of 0.5C until it can't discharge, and then rest it for 1 h. Charge the battery following CC (0.33C)/CV (14.6V) mode to full capacity, and then rest it for 1 h. Repeat above process until full charged capacity is no more than 80% of normal value. Accumulated times is defined as cycle life.
Discharge Temperature Characteristics	-20°C ≥ 70% 0°C ≥ 80% 25°C 100% 55°C ≥ 95%	At 25 ± 5°C discharge the battery with the current of 0.33C to the cut-off voltage. Store the battery at various temperatures for 2 h and discharge the battery with 0.33C to the cut-off voltage. Record the ratio between discharging & charging capacity.
Charge Retention ability	remain capacity ≥9 0%	Charge the battery to full capacity and store it for 28 days, and then discharge it with 0.33C to the cut-off voltage.
Communication Function	Bluetooth	Through APP, user can read the battery system information such as voltage, current, SOC, temperature and so on.

Circuit Protection

Test item	Content	Criterion
Over charge	Over-charge protection for each cell	3.80 ± 0.03V
	Over-charge release for each cell	3.60 ± 0.05V
	Over-charge release method	Under the release voltage
Over discharge	Over-discharge protection for each cell	2.00 ± 0.05V
	Over-discharge release for each cell	2.30 ± 0.05V
	Over-discharge release method	Charging
Over current	Discharge over current protection	55~65A
	Protection delay time	100~200ms
	Over current release method	Release after cutoff the load.
Over Temperature	Battery over temperature	Protection @65 ± 5°C Release @60 ± 5°C

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