

LiFeBlue Battery

Lithium Iron Phosphate
Deep Cycle Battery

LBU-100 Data Sheet

Battery Voltage 13.4V | Capacity 100AH | Energy Storage 1300WH



Specifications @ 77°F	LiFeBlue LBU-100
Capacity	100AH
Nominal Voltage	12.8 Volts
Full Charge Resting Voltage	13.35 Volts
Energy Storage	1300 Wh
Run Time @ 25 Amp Load	4 Hours @ 77°F
Self Discharge Rate	14mA BLE on; 500µA Sleep
Data Communications	Bluetooth BLE 4.0 or higher; RS485 Modbus; CAN Bus
Charge	
Charging Temperature Range	-4°~140°F
Absorb Voltage, CV (recommended)	14.5 Volts +/- 0.2
Float Voltage, CV Range	13.8 Volts +/- 0.2V
CV, Absorb Time (recommended)	15 minutes
Maximum Charge Current, @77°F	100 Amps
Recommended Current	5 to 80 Amps
Full Charge, SoC Calibration	Perform Weekly
Full Charge Current	<2A/100AH
Heater Current	7 Amps
Heater Controller	<32°F On; >40°F Off
Discharge	
Discharge Temperature Range	-4°F~140°F (-20°C~60°C)
Discharge Current	150 Amps Continuous
Discharge Current, 3 seconds	500 Amps

Battery Protection	LiFeBlue LBU-100
Over Voltage, any cell, Open	3.75 Volts, ±0.03 Volts
Over Voltage, Release	3.6 Volts, ±0.05 Volts
Over Discharge, any cell, Open	2.5 Volts, ±0.05 Volts
Over Discharge, all cells, release	2.8 Volts, ±0.05 Volts
Over Current	>400 Amps; 5 Seconds
Over Current Release	60 Seconds
Over Temperature	149°F (65°C)
Over Temperature release	131°F
Low Temperature Charge, Open	<32°F
Low Temperature Charge, Release	>40°F
MOSFET Over Temperature, Open	212° F
MOSFET Over Temp, Release	158° F
Short Circuit Protection	>1000A for 500µs
Short Circuit Protection release	Remove Load, 30 seconds
Mechanical	
Length	12.13"
Width	6.625"
Height	9"
Weight	26 Pounds
Enclosure Rating	IP67
Hardware	M8 bolt, washer, lock washer, Fits 5/16" Ring
Hardware Torque	80 in-lb. (9 N-m)
Miscellaneous	
Battery in Parallel	16
Battery in Series	4
Cycle Life	>4500 Cycles
Internal resistance (50% SoC)	≤20mΩ @1kHz AC
Recommended Storage Method	50% SoC; <75% RH, Power Switch Off, Check Voltage, charge if below 13.0V
Storage temperature Range	20°F~95°F (cooler is better)
Internal resistance (50% SoC)	≤20mΩ @1kHz AC
Certifications	UL1973; UL1642; IEC62133; TUV CB; CE; UN38.3; ISO9001-2009; ISO14001; OHSAS18001; TS16949

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SAFETY WARNING

Read and follow all instructions. Improper use or handling may result in damage or injury to people or property.

- Loose connections or inadequately sized bus bars, connectors or cables may cause over-heating and are a potential fire hazard.
- Do not open the battery.
- Do NOT use, charge or discharge damaged, defective or deformed batteries.
- Stop use and remove damaged, defective or deformed batteries to a safe outdoor location.
- Do not use temperature compensation with any battery charger.
- Battery must not be installed near any heat source.
- Do not incinerate or expose the battery to fire.
- Do not connect the battery in reverse polarity.
- Do not short battery terminals.
- Do not crush the battery.
- Do not mix with lead acid or any other battery chemistry.
- Do not inflict mechanical damage (crush, puncturing, deforming, etc)
- Keep small children away from the battery.

INSTALLATION INSTRUCTIONS

- Batteries should be installed in a dry compartment where there is no exposure to direct sunlight, dripping or spraying water from any source, debris or to loose items that can contact the battery terminals or cables. Keep away from children and pets.
- Each battery must be installed in the upright position (battery case top facing up) and securely fastened to avoid any movement of the battery, terminal connectors or wiring.
- Terminal bolts must be tightened properly before use. Torque each terminal bolt to 9 N-m or 80 in-lb. Do not over tighten. Check bolt torque periodically.
- Use a terminal post or bus bar to connect batteries in parallel if there are more than 2 ring terminals on any battery terminal.
- Cables must be free of acid from previous use and be kept clean and dry.
- Always install proper circuit protection. A fuse, circuit breaker or other current interruption device, properly sized for each branch circuit that is connected to a LiFeBlue battery, is required.
- Fully charge the battery before initial use. Fully charge the battery at least every 10 days. Do not leave the battery fully discharged more than 5 days.
- Each LiFeBlue battery includes an internal Battery Management System (BMS). The battery pack and cells are monitored and protected by the BMS. It is for protection only in case the limits of safe operation are exceeded.
- You must use appropriate voltage regulators for each charge source.
- The user is responsible for the proper and safe operation of the battery by limiting voltage, current and temperature to the normal operation values found on the data sheet.
- LiFeBlue Battery shall not be used in connection with life support systems, life saving or other medical equipment or devices. Use of LiFeBlue Battery with this type equipment is at your own risk.
- If the battery becomes very hot, has a smell, or the case becomes distorted or abnormal looking, stop using immediately and disconnect the battery. Safely move the battery to a safe outdoor location.

