

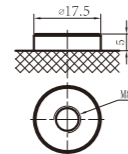
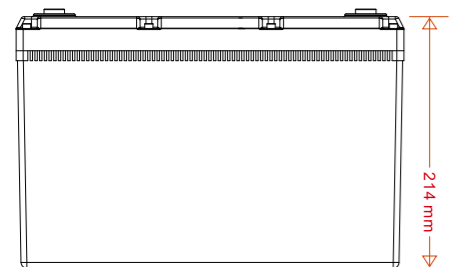
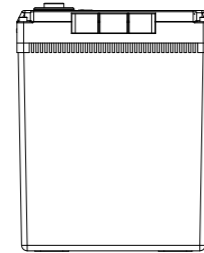
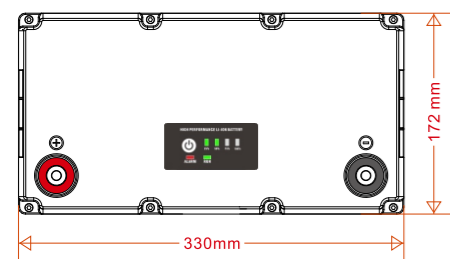


# 12.8V100Ah G2

## LiFePO4 BATTERY



### Dimension:



Unit: mm

### SAFETY

- + Long life type prismatic LiFePO4 cells.
- + Cell certification: UN38.3, ROHS, IEC62619, UL1973.
- + Battery certification: UN38.3, MSDS.
- + The cycle life over 3500 times.

### DESIGN

- + Detachable case, better than traditional case.
- + Case material ABS+PC, better and stronger than ABS case.
- + IP65 Class, water-proof design.
- + Maintenance free.

### BATTERY MANAGEMENT SYSTEM

- + Integrated BMS inside.
- + Independent protection for charge and discharge.
- + OVP, LVP, OCP, OTP, LTP, OTP, Short circuit protection.
- + Support LEDs indicators, Heater parts, Blue-tooth module.



# 12.8V100Ah (G31)

## SPECIFICATION

Model	LFP12.8V100AH G2
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]	14.2~14.6
Max. Discharging Current [A]	100
End of Discharge Voltage [V]	11.2
Operating Temperature Range <sup>(1)</sup>	With internal heater: Charge/Discharge -20~+55°C
Protection	Over charge Over discharge, Over temperature, Low Temperature, Over Current, Short circuit
Cycle Life <sup>(2)</sup>	>3500 cycles
Designed Calendar Life	10 Years
Dimension (W*D*H, mm)	330*172*214 (BCI Group 31)
Weight [Kg]	10.5
Operation Humidity	0~95% RH (No condensing)
LED Indicator and Button	SOC, ALM, RUN, ON/OFF
IP Class	IP65
Parallel Support <sup>(3)</sup>	Yes, Max, 4Sets
Series Support	Yes, Max. 4 Sets
Certification-Battery	UN38.3; MSDS; CE
Internal Bluetooth Module	Yes
Internal Heater (100W)	Yes

Note:

(1) Normally the Li-ion battery operation temperature range is : discharge -20~+55°C, charge 0~+55°C, With internal heater it will automatic start to work once the cell temperature is below 5°C and the heater can help to increase cell temperature 4~8°C/hour. With Heater: Charge / Discharge: -20 ~ +55°C, the charger power should be above than heater parts power consumption.

(2) 25°C ,0.5C/0.5C, 100%DOD and 80% EOL

(3) For parallel and series power cable connection, refer to user manual.

## New Generation Li-ion Battery



### BMS Detail Information

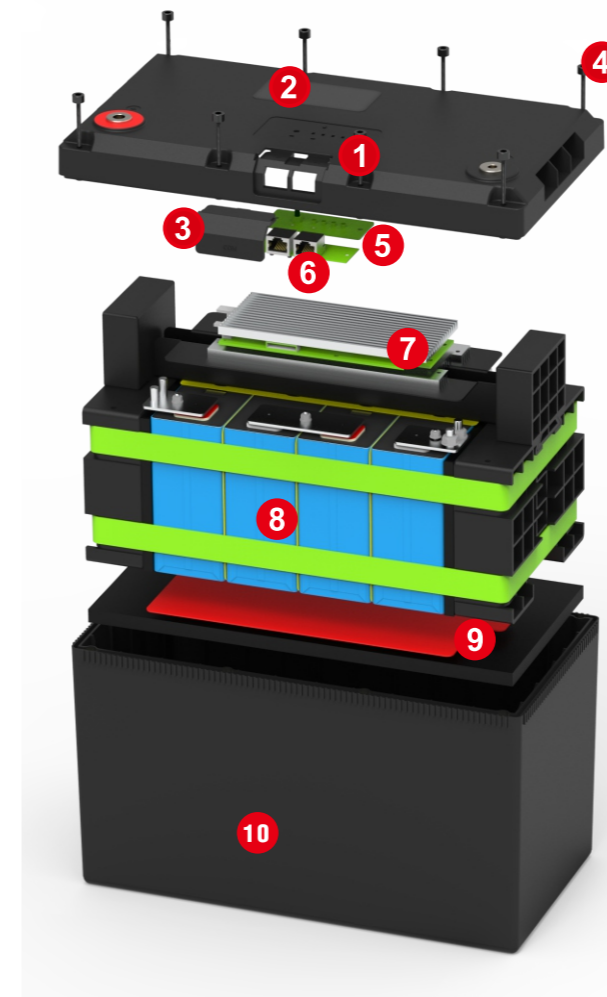
Over-Charge Alarm & Protection	
Over-Charge Alarm	3.55V (For cell) 14.2V (For pack)
Over-Charge Protection	3.7V (For cell) 14.8V (For pack)
Over-Charge Protection Delay	1000 ms
Over-Charge Release	3.45V (For cell) 13.8V (For pack)
Over-Discharge Alarm & Protection	
Over-Discharge Alarm	2.8V (For cell) 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 Current Protection Delay Time	1500 uS
Short Current Release Method	Release load
Heater Control (for optional heater parts)	
Heater ON	Cell temperatures ≤ 0°C and charger is connected
Heater OFF	Cell temperature > 10°C

## New Generation Li-ion Battery



### 12.8V100Ah (G31)

#### INTERNAL STRUCTURE DIAGRAM



- ① Detachable cover-ABS+PC
- ② PC Film
- ③ Communication port cover (Only for G3)
- ④ Hexagon socket screws
- ⑤ ON/OFF button and LEDs
- ⑥ Bluetooth Module
- ⑦ BMS (RD-RJ4S100A)
- ⑧ Cells, 1P4S
- ⑨ Heater Parts (100W, )
- ⑩ Case : ABS+PC

#### Bluetooth module & APP

