



F U S I O N

51.2V

105AH

LITHIUM

LITHIUM IRON PHOSPHATE BATTERY

G-LFP-48-105

LIFEPO4 BATTERY PACK SPECIFICATION

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1.Preface

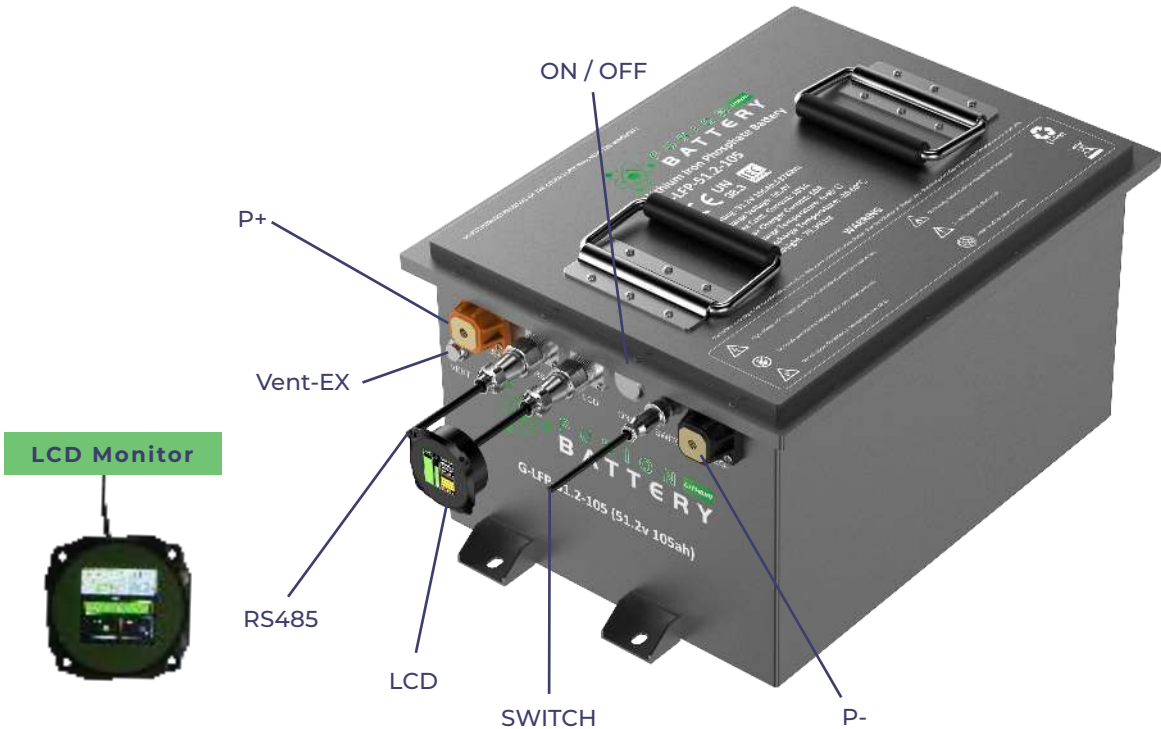
This specification describes the type and size, performance, technical characteristics, warning and caution of the G-LFP-48-105(51.2V105Ah) LiFePO4 rechargeable battery pack. The specification only applies to G-LFP-48-105(51.2V105Ah) LiFePO4 rechargeable battery pack supplied by Superstart Batteries.

2.Product and Model

2.1 Product: G-LFP-48-105(51.2V105Ah) LiFePO4 Battery Pack

2.2 System Configuration:

Standard Pack: IFP27175200-3.2V-105Ah-16S1P



Charge/Discharge	Positive	M8
	Negative	

3.Battery Pack Specifications

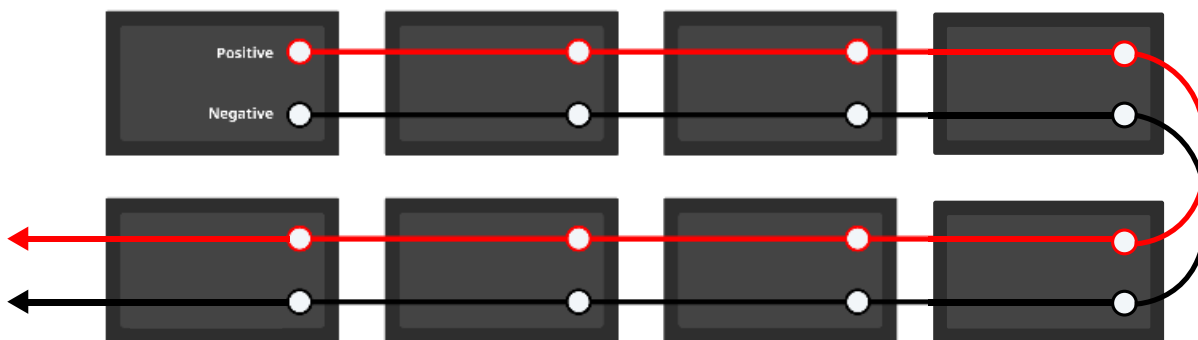
Items	Standard	Comments
Nominal Voltage	51.2V	16S
Typical Capacity	105Ah	At 0.2C discharge rate
Watt Hour	5376 Wh	
Max Continuous Discharge Current	200A (10 Sec)	
Discharge Cut-Off Voltage	About 40V	
Charge Input Voltage	58.4±0.05V	Charge mode: CC/CV, Use a constant current,constant
Charge Current	≤50A	Charge current(CC/CV)
Operation Temperature Range	Charge/ Discharge	0℃ ~+45℃/-20℃ ~+60℃
	Discharge	When the environment temperature is higher than 45℃, please pay attention to ventilation and heat rejection.
Storage Temperature Range	0℃ ~40℃ (Capacity 80%)	Recommended long-term storage temperature is 15~25℃
Humidity	5%≤RH≤85%	
Cabinet Material	Iron Shell	
Dimension(L W H)	433*333*240±2mm	
Weight	Approx. 43±2Kg	
Houseing Protection	IP65	
Cell Type-Chemistry	LiFePO Cell	
SOC Display(Optional)	LED	
Protection Function	Over charge protection,Over discharge protection,Over current protection,Short circuit protection, Temperature protection.	
Communication (optional)	RS485/CAN	

Compliance Certificate

Certificate	UL1642(CELL)
	CE
	IEC62133 & CB
	KC
	BIS
Shipping Classification	UN3480, Class 9,UN38.3

3.2 Connect in Parallel.

For parallel connection, ensure batteries match in voltage and ideally have the same capacity and purchased within 6 months.

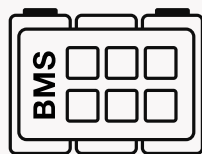


The max. number of batteries in **parallel is 8 pcs.**

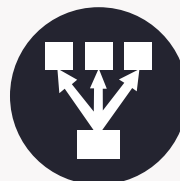
FEATURES

LiFePO₄

Lithium Iron
Phosphate
(LiFePO₄)



Integrated
Battery
Management
System(BMS)



BMS with
Intelligent
Cell Balancing



RS485
Connection

BATTERY APPLICATIONS

- + Aerial Work Platform
- + Floor Cleaning Machines
- + Electric Mobilities(E-scooters,Wheelchair)
- + Golf Carts
- + Medical Devices
- + Passenger Vehicles



4. Standard Test Conditions

All test in this specification should be in standard atmospheric conditions:

Temperature: $25 \pm 5^{\circ}\text{C}$, relative humidity: $65 \pm 20\%$.

5. Characteristics

5.1 Standard charge

Charge the battery with the Battery special test cabinet, supply 58.4 voltage, constant-current 0.2C(A) current until current down to 0.02C (A).

5.2 Standard discharge

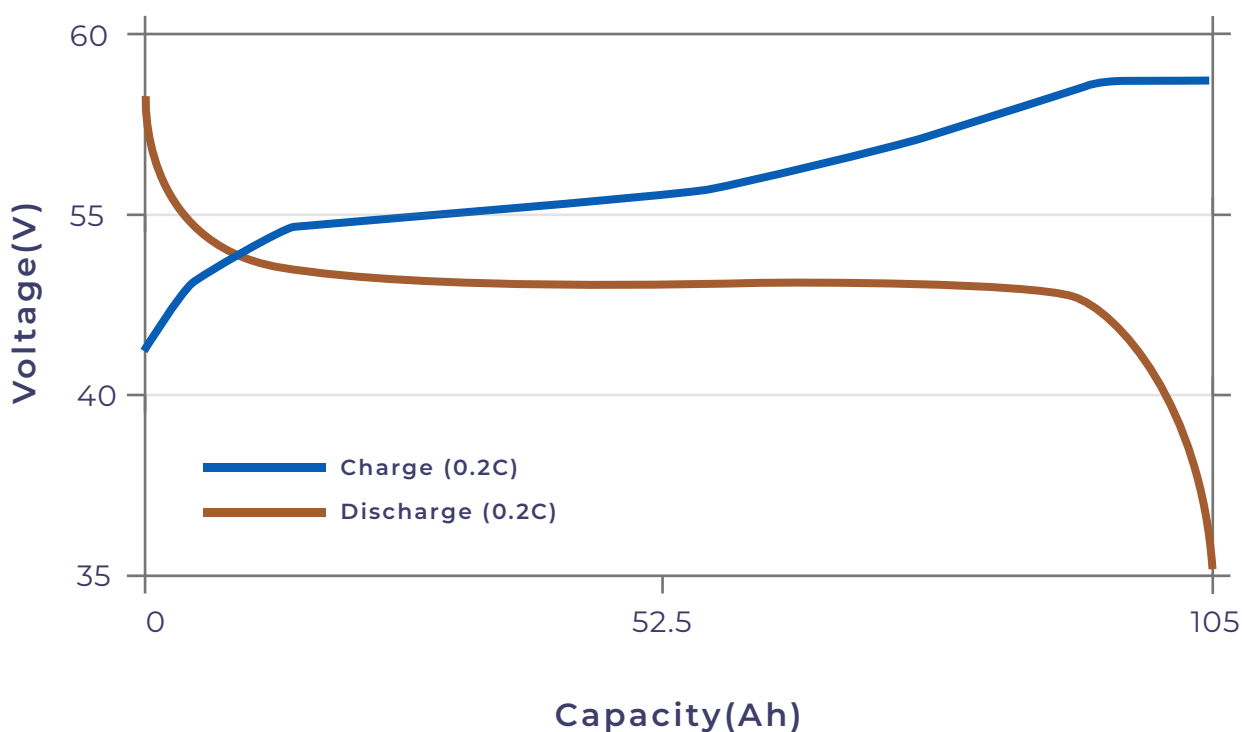
Discharge the battery at 0.2C (A) to 40V or battery cut off voltage.

5.3 Electrical Performance

Test Items	Test Methods	Test Standards
Capacity retention rate	After standard charge under 5.1 specified conditions, store the cells for 28 days, then discharge at 0.2C (A) to cut-off voltage.	Capacity retention rate \geq 80%
Cycle Life	1) Standard charge at 0.2C (A) , 2) Rest 0.5~1 h 3) Discharge at 0.2C to cut off voltage 4) Capacity retention rate \geq 80%	>2000cycles @ 100% DOD; >3000cycles @ 90% DOD; >4000cycles @ 80% DOD;

6. Characteristics Curve

51.2V105Ah - Charge - Discharge curve (25°C)



7. Cautions

- 7.1** Charging current should not be more than maximum charge current specified in the Product Specification, Charging current bigger than recommended current may damage the battery;
- 7.2** Discharging current should be no more than maximum discharge current specified in the Product Specification; Discharging current bigger than recommended discharge current may damage the battery;
- 7.3** It should be noted that the cell would be possible to be at a over-discharged state by its self-discharge characteristics in case the cell is not used for long time. In order to prevent over-discharging, the cell shall be charged periodically to maintain between 52.8V and 54.4V (Recommended 3 months one cycle).Over-discharging may causes loss of cell performance, characteristics, or battery functions;
- 7.4** Please charge the battery within 12 hours after use;
- 7.5** Battery storage environment follow the above conditions and in standard atmosphere, should be without strong magnet, no power, no static;
- 7.6** Do not reverse the polarity of the battery pack for any reason;
- 7.7** Do not short circuit the battery pack;

- 7.6** Do not reverse the polarity of the battery pack for any reason;
- 7.7** Do not short circuit the battery pack;
- 7.8** Do not reverse polarity charging;
- 7.9** Battery packs can be combined in series or in parallel according to the specification;
- 7.10** Do not immerse the battery pack in water or sea water, or get it wet;
- 7.11** Do not disassemble battery;
- 7.12** Do not expose the battery to extreme heat or flame;
- 7.13** Please use a compatible charger for charging;

