



8ah 12V Lithium | LFP-Xtreme 8



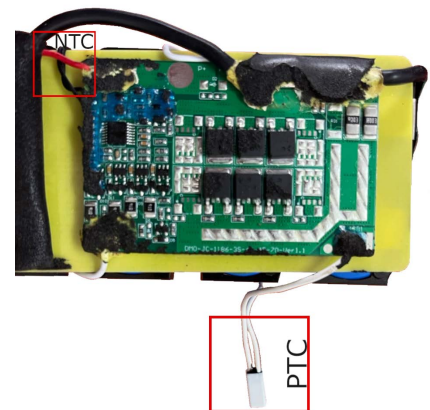
GSS Group series LiFePO₄ (Lipo4) battery is a powerful LiFePO₄ battery product, has the highest capacity in a standard casing available on the market.

The highly sophisticated and integrated BMS with very low self consumption, brings safety, functionality and ease of use together in a lightweight and robust casing.

The battery has specially been designed to provide energy for Security Systems, UPS Systems, Backup Power Systems, Solar Systems, Emergency Lighting, ect.

Benefits of Lithium Iron Phosphate

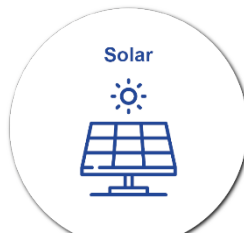
- High capacity, low weight, Increased energy in given space
- Fast charging
- High operational reliability
- Safest lithium technology
- Excellent long life times
- Built-in intelligent BMS to protect the battery pack at any time and prolong its service life
- Maintenance free



Certifications and Standards

a.Products

- UL1642(cells)
- FCC
- UN38.3
- IEC62619
- Over current draw protection test - BMS 100%
- Short circuit protection check - BMS 100%
- Over voltage draw protection check - BMS 100%
- Under voltage protection check - BMS 100%
- Temperature protection check - BMS 100%
- NTC (Negative temperature thermistor) - 100%
- PTC (Positive temperature thermistor) - 100%
- Sell balance function check (BMS controlled) - 100%
- Insulation % continuity (solder quality) check - 100%
- Cell & BMS mechanical suspensions / protection test - 100%



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Specifications

Nominal Characteristic		
Battery Model		LFP-Xtreme 8
Nominal voltage		12.8V
Typical capacity		8Ah(25°C,0.2C)
Typical energy		102.4Wh
Cells type/chemistry		Prismatic -LiFePO4
Gravimetric Energy density		108.9Wh/Kg
Dimensions	Height	94mm
	Width	65mm
	Length	151mm
Reference Weight		0.94Kg
Case Material		ABS
Cycle life		>6000 cycles(80% DoD)
Electric Characteristics		
Charge Method		CC/CV
Charge voltage Range		14.3~14.6V
Max continuous Discharge Current		20A
Max continuous Charge Current		8A
Discharge Pulse Current (10 sec)		40A
End of Discharge Voltage		10.5V
Operation Environment		
Operating Temperature		-20°C~+70°C
Charge Temperature		0°C~55°C
Discharge Temperature		-20°C~60°C
Storage Temperature		-10°C~50°C
Protection Class		IP56



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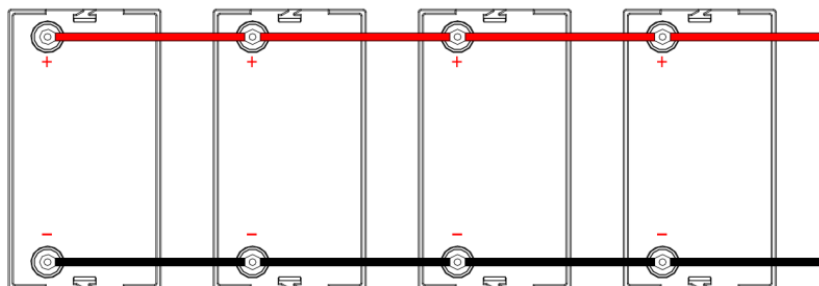
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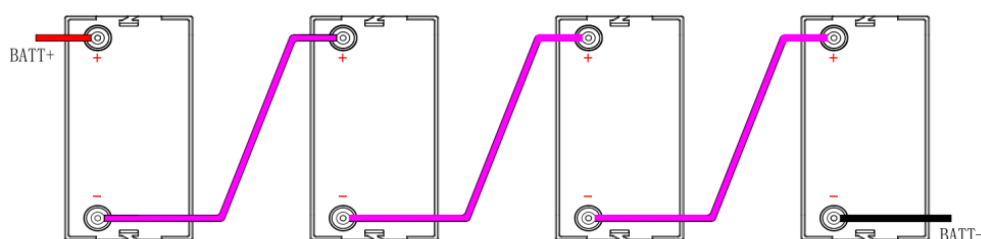


Parallel Connection of Batteries



Capacity of parallel battery	Battery Numbers	Charge	Discharge
		Limited voltage	Cut-off voltage
12.8V/Capacity*1	1 pcs	14.6 V	10.8 V
12.8V/Capacity*2	2 pcs	14.6 V	10.8 V
12.8V/Capacity*3	3 pcs	14.6 V	10.8 V
12.8V/Capacity*4	4 pcs	14.6 V	10.8 V

Series Connection of Batteries



Inverter/Charger Type	Battery	Charge	Discharge
		Limited voltage	Cut-off voltage
12V	1 pcs	14.6 V	10.8 V
24V	2 pcs	29.2 V	21.6 V
36 V	3 pcs	43.8 V	32.4 V
48 V	4 pcs	58.4 V	43.2 V



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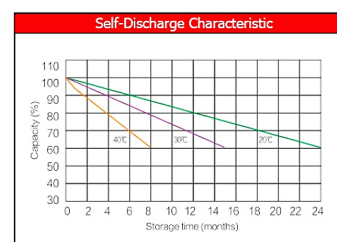
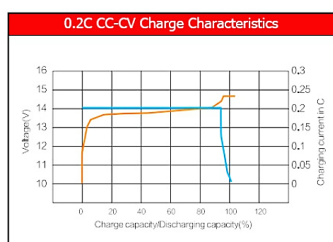
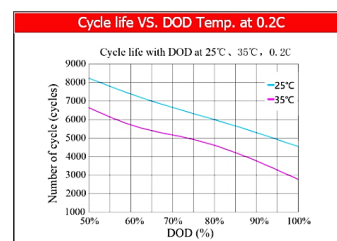
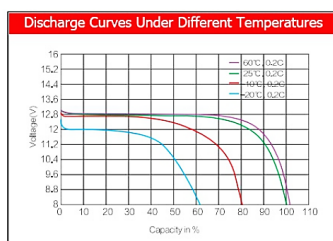
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BMS Specifications

ITEM	CONTENT	CRITERION
Voltage	Charging voltage	3.65V/cell
	Balance voltage	3.45V/cell
Current	Max continues charge current	8A
	Max continues discharge current	20A
	Over charge detection voltage	3.75±0.05V
	Over discharge detection voltage	2.5±0.05V
Over charge Protection	Over charge detection delay time	1~3S
	Over charge release voltage	3.6±0.05V
	Over discharge detection voltage	2.5±0.05V
Over discharge Protection	Over discharge detection delay time	1~3S
	Over discharge release voltage	2.70±0.10V
	Over discharge current protection	75A
	Detection delay time1	50~150mS
Over current protection	Over charge current detection current	26A
	Detection delay time	300~800mS
	Short Circuit Protection Current	130A, External short circuit
Short Circuit Protection	Detection delay time	400uS
	Release condition	Cut load and charging
Battery temperature	Over-temperature protection	65±5°C
	Release temperature	50±5°C

Performance Curve



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