

NSFG100T11 LFR51.2-100

LiFePO₄ Lithium Battery

Longer Cycle Life: Offers up to 15 times longer cycle life and 5 times longer float/calendar life than lead acid battery.

Lighter Weight: About 40% weight of a comparable lead acid battery, save up to 60% in weight.

Quick Charge: Short charge time compared with lead acid battery.

Low Self-Discharge: Lower self-discharge compared with lead acid battery. longer storage time without recharging.

Superior Safety: Multi-protection methods built inside to protect the battery from overcharge, over discharge and short circuit situation.

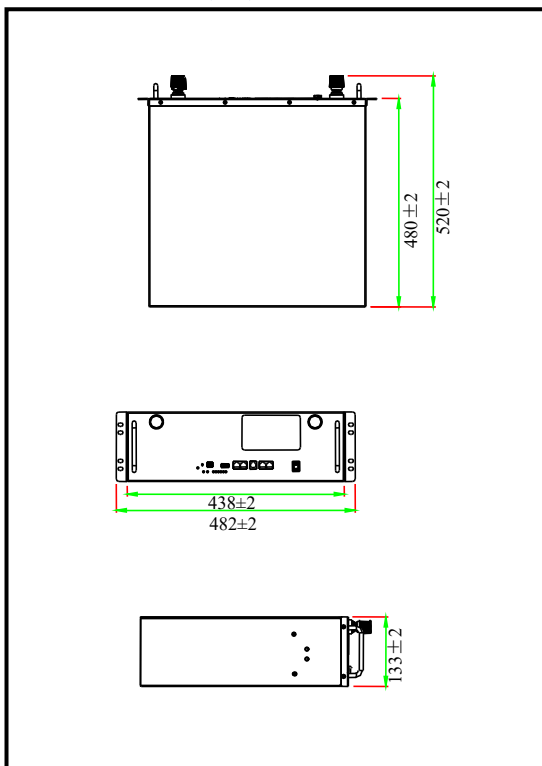
High Efficient: Higher round-trip energy efficiency of the average (92%) than lead acid battery 80% (discharge from 100% to 0% and back to 100% charged).



Specifications

Nominal voltage		48V
Nominal capacity		100Ah
Dimensions	Length	482±2mm (18.98inch)
	Width	520±2mm (20.47inch)
	Height	133±2mm (5.24inch)
	Total height	133±2mm (5.24inch)
Approx. weight		40.8kg (85.98lbs)±2.5kg

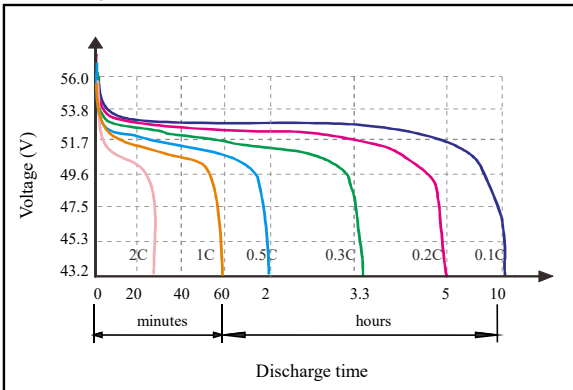
Outer dimensions (mm)



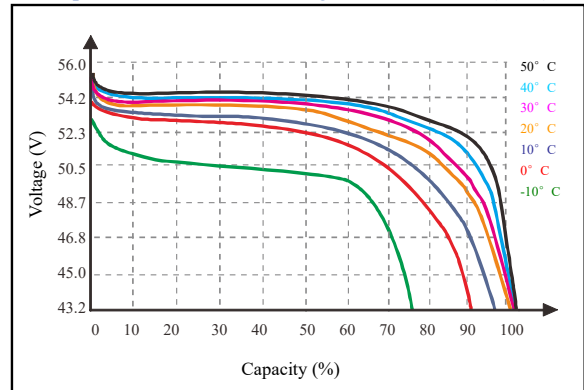
Characteristics

Electrical Parameters (25°C)	Rated Voltage	51.2V
	Rated Capacity (C ₅)	100Ah@25°C
	Energy	5120Wh
	Months Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
	Discharge Efficiency	96-99%@ 1C
Terminal Diameter		M10
Internal resistance (Fully charged, 25°C)		≤50mΩ
Cycle life		>3000 cycles @ 0.2C 100%D.O.D
Capacity affected by temperature	40°C	101%
	25°C	100%
	0°C	90%
	-10°C	75%
Nominal operating temperature		25°C±3°C (77°F±5°F)
Operating temperature range	Discharge	-20°C~60°C (-4°F~140°F)
	Charge	0°C~45°C (32°F~113°F)
	Storage	0°C~40°C (32°F~104°F)
Self heat function		Available
Water Dust Resistance		IP50
Charge Voltage		58.4V
Standard Charge Mode (25°C±2°C, <75%RH)		0.2CA Constant Current to 58.4V, then Constant Voltage 58.4V until the current drops to 0.02CA, before use, rest 30 minutes
Charge Current		20A
Maximum Charge Current		50A
Charge Cut off Voltage		58.4V
Continuous Discharge Current		100A
Maximum Pulse Current		200A (<5s)
Discharge Cut Off Voltage		45V
Communicate Protocol (optional)		RS485/RS232/CAN
SOC (optional)		Screen/LED/PC Software
Application connection		1 string 1 parallel
Mechanical	Cells	16 Strings
	Container	Metal

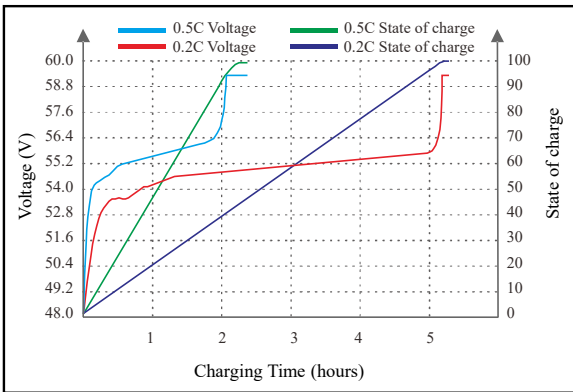
● Discharge characteristics (25°C)



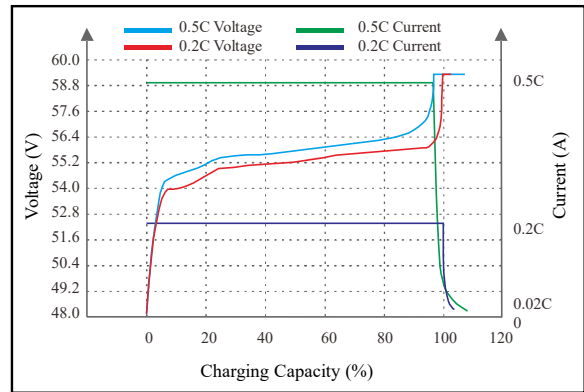
● Temperature affect on discharge characteristics (0.5C)



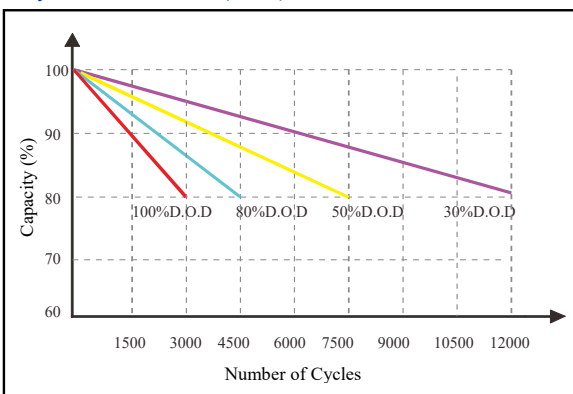
● State of Charge Curve (25°C)



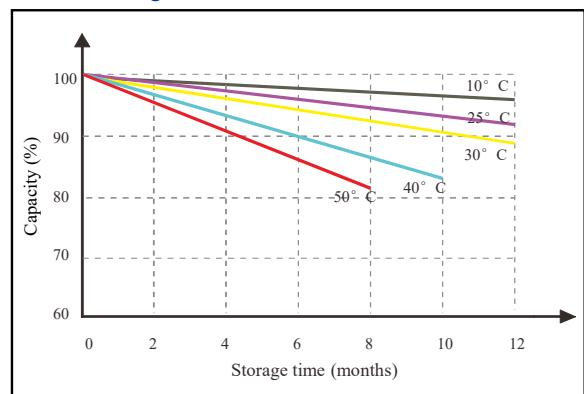
● Charge characteristics (25°C)



● Cycle life on D.O.D (25°C)



● Self Discharge Characteristics Curve



Note 1: The above curves are based on laboratory testing data @ 25°C 40%RH.

Note 2: Please always refer to the latest edition of our technical manual that published on our website to ensure the safety and efficient operation.

Note 3: When make parallel connection, please full discharge batteries, and then recharge the battery after parallel connected.

Note 4: Parallel connection is only for longer backup time, not for larger output power.

Note 5: Series connection is not allowed, please make sure charger open circuit voltage doesn't exceed 60v, otherwise BMS will be damaged and warranty avoid.