

## NSFK050S20 96V050Ah

### LiFePO<sub>4</sub> 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.

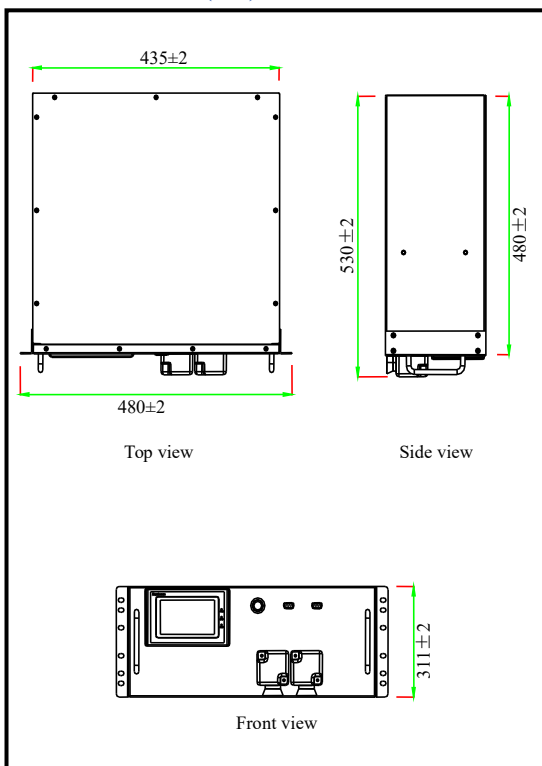
**High Efficient:** Higher round-trip energy efficiency of the average (92%) than lead acid battery 80% (discharge from 100% to 0% and back to 100% charged).



#### Specifications

Nominal voltage		96V
Nominal capacity		50Ah
Dimensions	Length	530±2mm (20.86inch)
	Width	480±2mm (18.89inch)
	Height	311±2mm (12.24inch)
	Total height	311±2mm (12.24inch)
Approx. weight		49kg (108.03lbs)±2.5kg

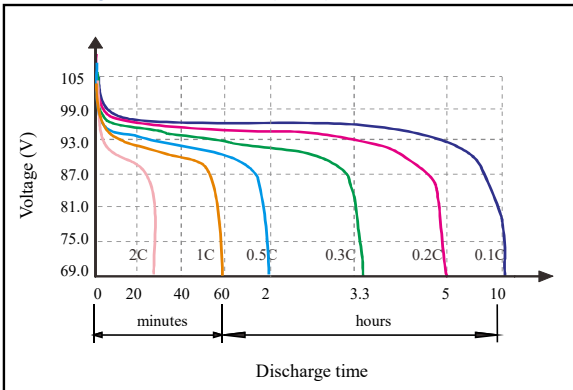
#### Outer dimensions (mm)



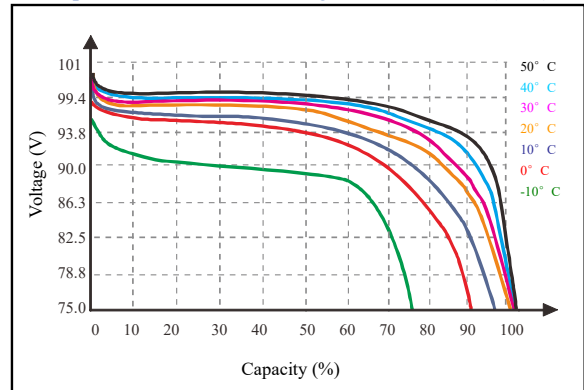
#### Characteristics

Electrical Parameters (25°C)	Rated Voltage	96V
	Rated Capacity (C <sub>5</sub> )	50Ah@25°C
	Energy	4800Wh
	Months Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
	Discharge Efficiency	96-99%@ 1C
Terminal Diameter		M8
Internal resistance (Fully charged, 25°C)		≤180mΩ
Cycle life (80% EOL)		>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		Options available
Water Dust Resistance		IP50
Charge Voltage		109V
Standard Charge Mode (25°C±2°C, <75%RH)		0.2CA Constant Current to 109V, then Constant Voltage 109V until the current drops to 0.02CA, before use, rest 30 minutes
Charge Current		10A
Maximum Charge Current		25A
Charge Cut off Voltage		109V
Continuous Discharge Current		100A
Maximum Pulse Current		150A (<5S)
Discharge Cut Off Voltage		84V
Communicate Protocol (optional)		RS485/RS232/CAN
SOC (optional)		LED/PC Software/Screen/WIFI/4G
Application connection		1 string 14 parallel
Mechanical	Cells	LiFePO <sub>4</sub> 30 Strings
	Container	Metal

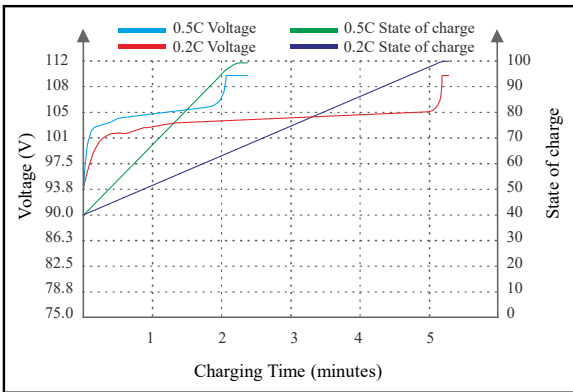
### ● Discharge characteristics (25°C)



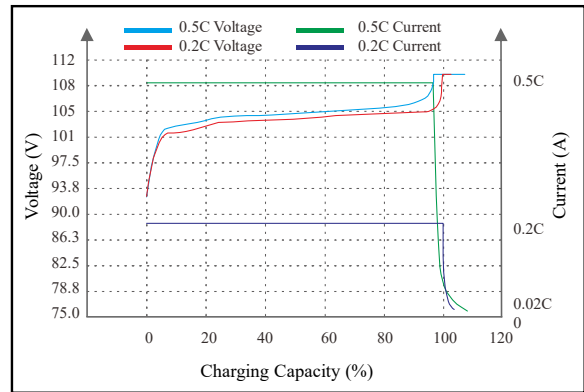
### ● Temperature affect on discharge characteristics (0.5C)



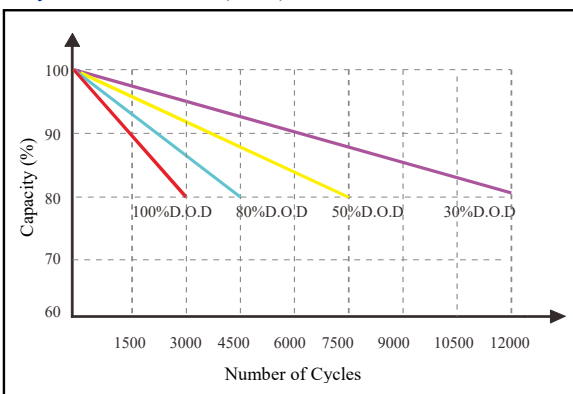
### ● State of Charge Curve (25°C)



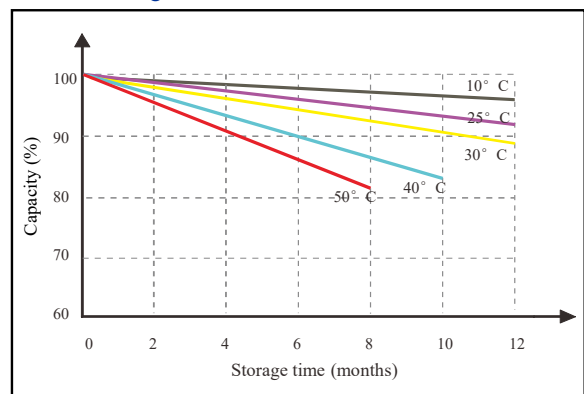
### ● Charge characteristics (25°C)



### ● Cycle life on D.O.D (25°C)



### ● Self Discharge Characteristics Curve



Note 2: The above curves are based on laboratory testing data @ 25°C 40%RH.