Lithium LiFePO$_4$ Battery

LFP51.2-314 51.2V 314Ah



LiFePO$_4$ Lithium Battery

Longer Cycle Life: 5 times longer cycle life than VRLA battery.

Light Weight: About 40% weight of VRLA battery

Quick Charge: Short charge time compared with VRLA battery.

Low Self-Discharge: Lower self-discharge compared with VRLA battery,

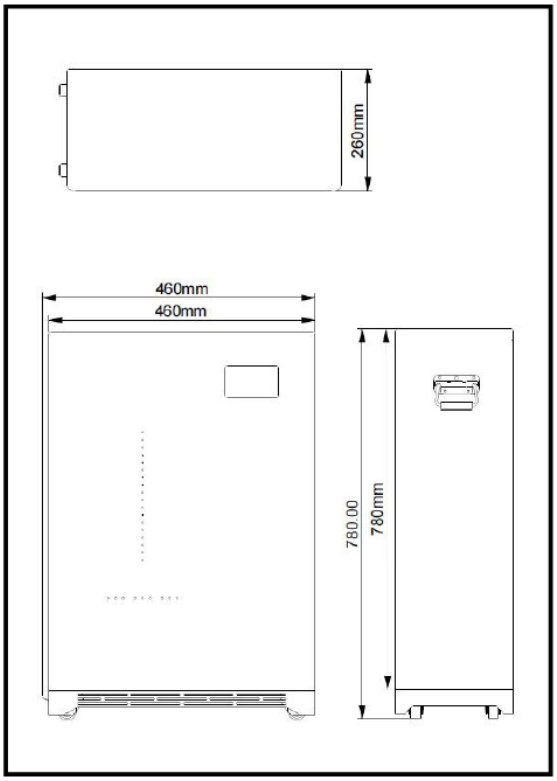
Superior Safety: Multi-protection methods built inside to protect the battery from overcharge, over discharge and short circuit situation.

High Efficiency: Higher energy efficiency at 92% compared to VRLA battery at 80%.

Specification

Nominal voltage		51.2V
Nominal capacity		314Ah
Dimension	Length	460mm
	Width	260mm
	Height	780mm
	Total height	780mm
Approx. weight		122kg

Outer dimension (mm)



Characteristic

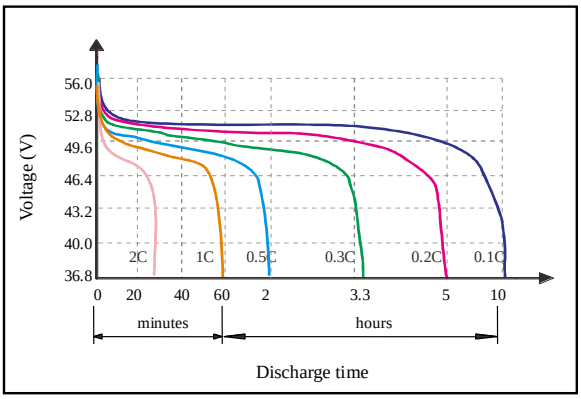
Electrical Parameters (25°C)	Rated Voltage	51.2V
	Rated Capacity (C_5)	314Ah@25°C
	Energy	16076Wh
	1 Month Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
	Discharge Efficiency	96-99%@ 1C
Terminal Diameter		M10
Internal resistance (Fully charged, 25°C)		≤20mΩ
Cycle life		>4000 cycles @ 0.2C 100% DOD
Capacity affected by temperature	40°C	101%
	25°C	100%
	0°C	90%
	-10°C	75%
Nominal operating temperature		25°C± 3°C
Operating temperature range	Discharge	- 20°C~ 60°C
	Charge	0°C~ 45°C
	Storage	0°C~ 40°C
Water Dust Resistance		IP65
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		40A
Maximum Charge Current		100A
Charge Cut off Voltage		58.4V
Continuous Discharge Current		100A
Maximum Pulse Current		200A (<500us)
Discharge Cut Off Voltage		45V
Communicate Protocol (optional)		RS485/RS232/CAN
SOC (optional)		Screen/LED/PC Software
Maximum battery connection		8 Parallel
Mechanical	Cells	16 Strings
	Container	Metal

VMP

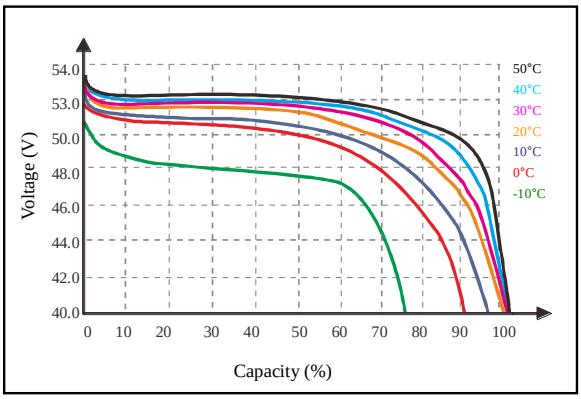
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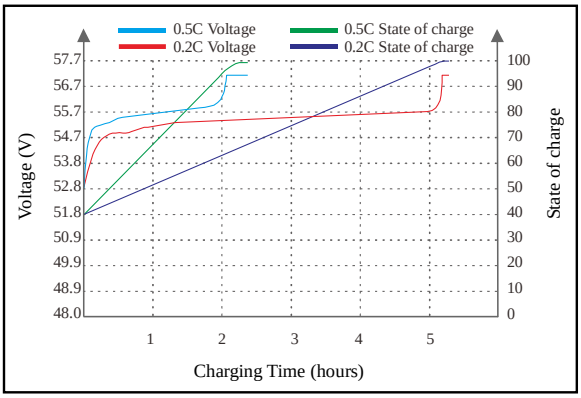
Discharge characteristics(25°C)



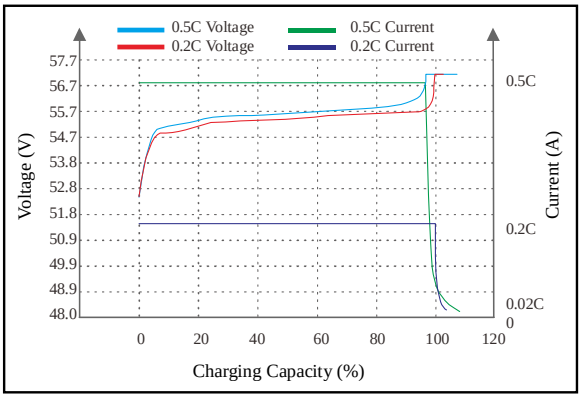
Temperature effects on discharge characteristics (0.5C)



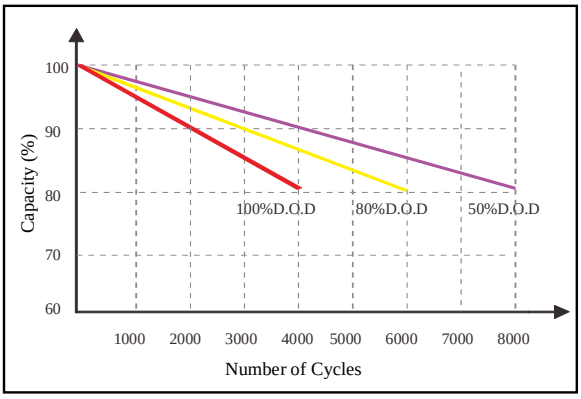
State of Charge Curve (25°C)



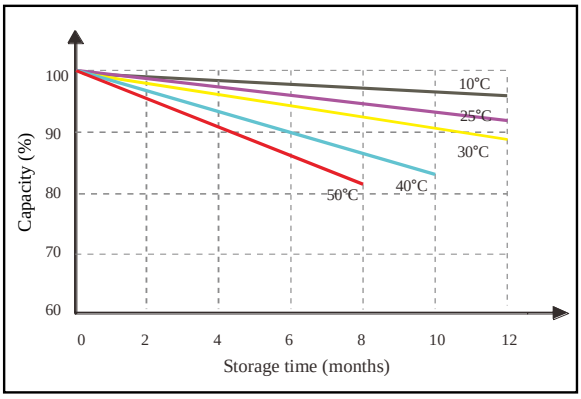
Charging characteristics



Cycle Life on DOD (25°C)



Self Discharge Characteristics Curve



ISO CE CEC