

Battery SKU:9473

OPTONICA

51.2V100Ah

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).



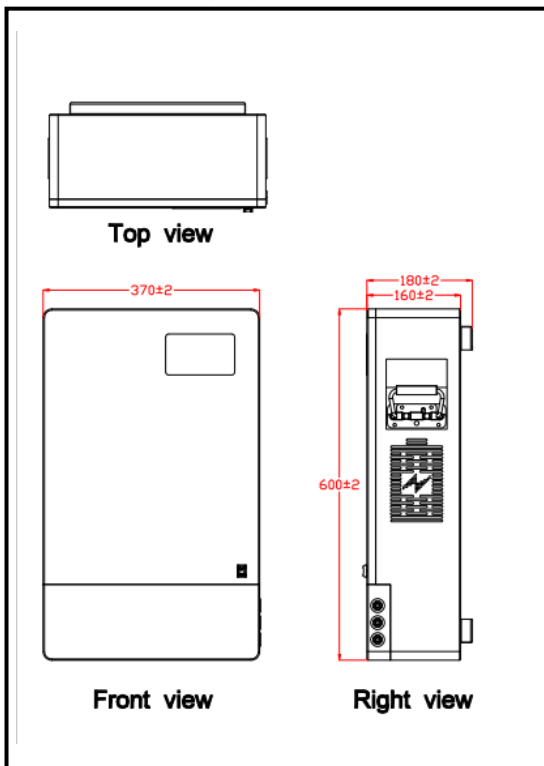
Specifications

Nominal voltage		48V
Nominal capacity		100Ah
Dimensions	Length	370±2mm (13.78inch)
	Width	160±2mm (7.48inch)
	Height	600±2mm (19.69inch)
	Total height	600±2mm (19.69inch)
Approx. weight		42.2kg (93.03lbs)±2kg

Characteristics

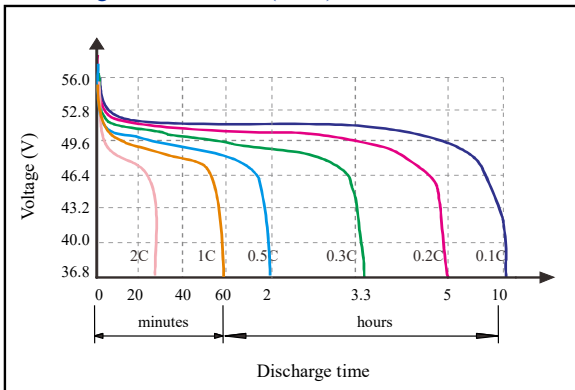
Electrical Parameters (25°C)	Rated Voltage	51.2V
	Rated Capacity (C ₅)	100Ah@25°C
	Energy	5120Wh
	Months Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
	Discharge Efficiency	96-99%@ 1C
Terminal Diameter		M8
Internal resistance (Fully charged, 25°C)		≤200mΩ
Cycle life		>3000 cycles @ 0.2C 100%D.O.D
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)
Water Dust Resistance		IP50
Charge Voltage		57V
Standard Charge Mode (25°C±2°C, <75%RH)		0.2CA Constant Current to 57V, then Constant Voltage 57V until the current drops to 0.02CA, before use, rest 30 minutes
Charge Current		20A
Maximum Charge Current		50A
Charge Cut off Voltage		57V
Continuous Discharge Current		100A
Maximum Pulse Current		150A (<1S)
Discharge Cut Off Voltage		46V
Communicate Protocol (optional)		RS485/RS232/CAN
SOC (optional)		Screen/LED/PC Software
Application connection		1 string 1 parallel
Mechanical	Cells	16 Strings
	Container	Metal

Outer dimensions (mm)

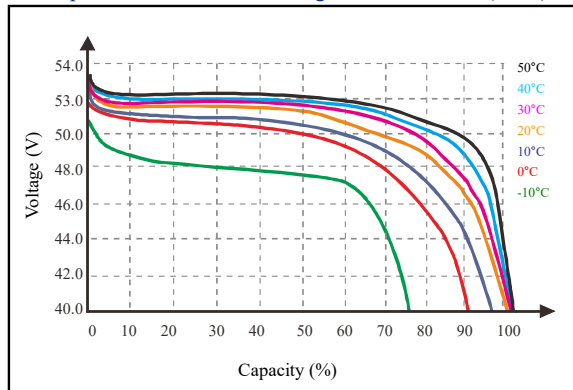


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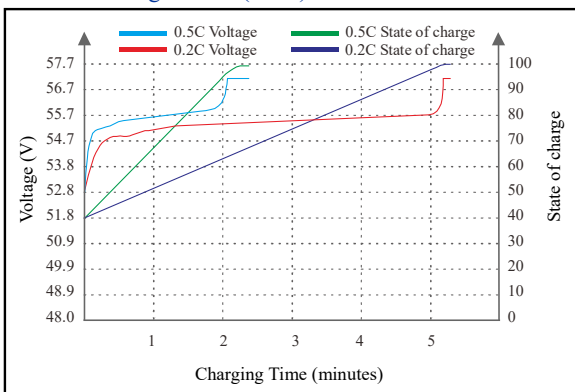
● Discharge characteristics (25°C)



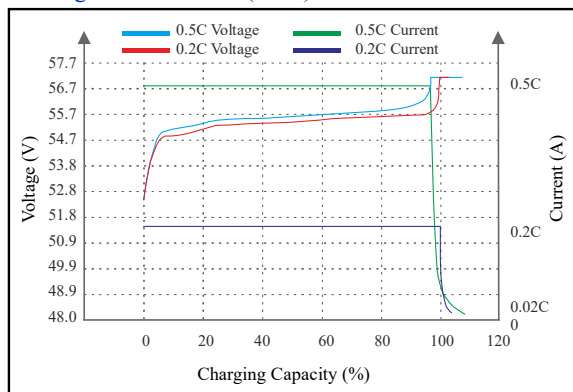
● Temperature affect on discharge characteristics (0.5C)



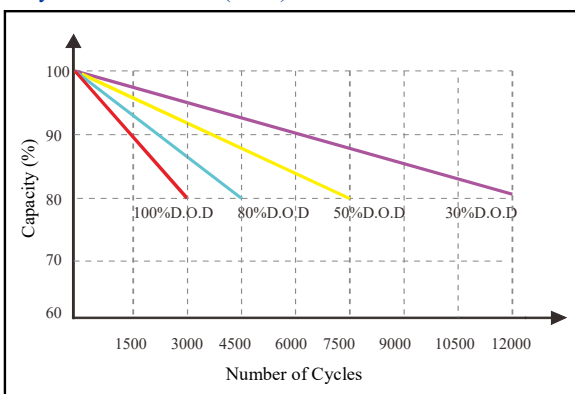
● State of Charge Curve (25°C)



● Charge characteristics (25°C)



● Cycle life on D.O.D (25°C)



● Self Discharge Characteristics Curve

