

Battery SKU:9471

OPTONICA

48V228Ah

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).



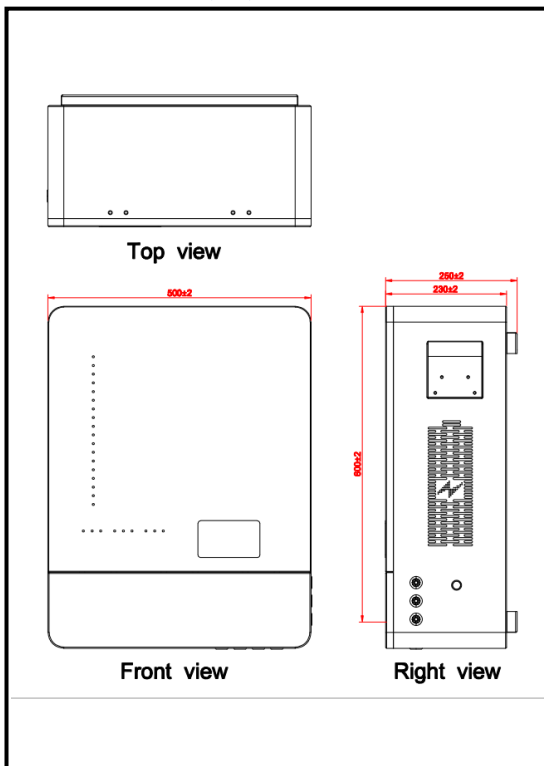
Specifications

Nominal voltage		48V
Nominal capacity		228Ah
Dimensions	Length	500±2mm (13.78inch)
	Width	230±2mm (12.59inch)
	Height	650±2mm (19.69inch)
	Total height	650±2mm (19.69inch)
Approx. weight		79.5kg (174.60lbs)±3kg

Characteristics

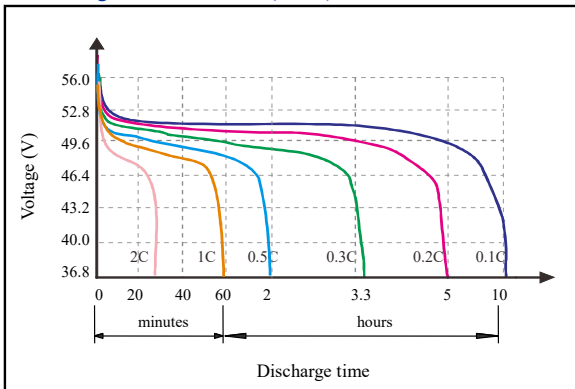
Electrical Parameters (25°C)	Rated Voltage	48V
	Rated Capacity (C ₅)	228Ah@25°C
	Energy	10944Wh
	Months Self Discharge	<3%
	Charge Efficiency	99.5%@ 0.2C
	Discharge Efficiency	96-99%@ 1C
Terminal Diameter		M8
Internal resistance (Fully charged, 25°C)		≤200mΩ
Cycle life		>3000 cycles @ 0.2C 100%D.O.D >5000 cycles @ 0.2C 80%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		54V
Standard Charge Mode (25°C±2°C, <75%RH)		0.2CA Constant Current to 54V, then Constant Voltage 54V until the current drops to 0.02CA, before use, rest 30 minutes
Charge Current		50A
Maximum Charge Current		100A
Charge Cut off Voltage		54V
Continuous Discharge Current		150A
Maximum Pulse Current		250A (<1S)
Discharge Cut Off Voltage		42V
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)

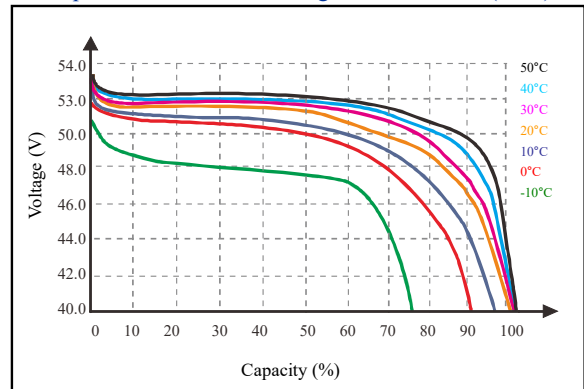


Battery SKU:9471

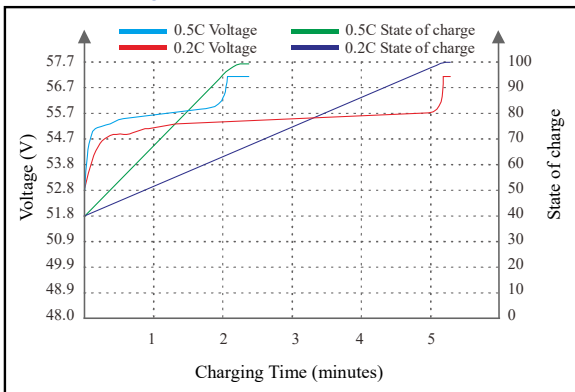
● Discharge characteristics (25°C)



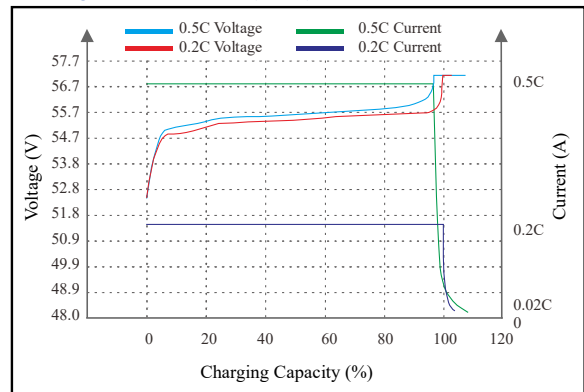
● Temperature affect on discharge characteristics (0.5C)



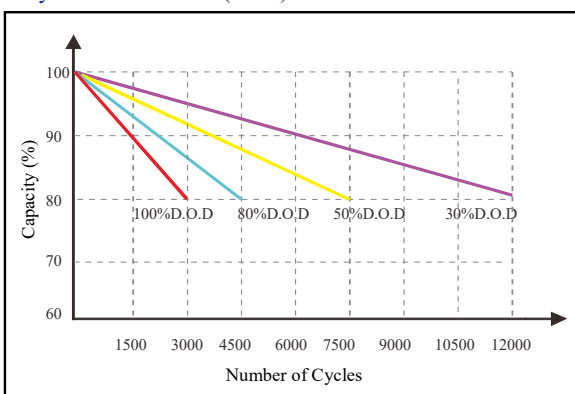
● State of Charge Curve (25°C)



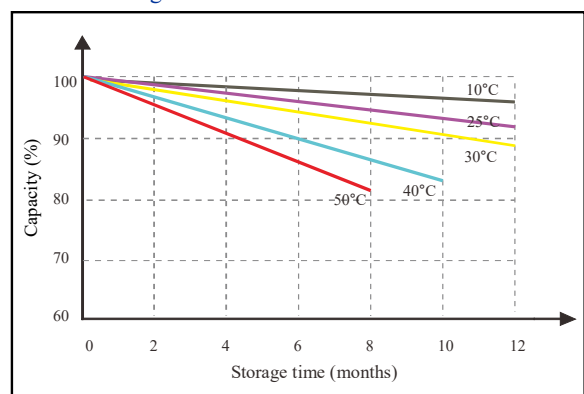
● Charge characteristics (25°C)



● 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.